

Curriculum Vitae Leo Posthuma**Personal details**

Name: Leo Posthuma
 Civil Status: Born 29 September, 1962, Amsterdam, the Netherlands
 Sex: male
 Marital status: married, 3 children ('97, '99, '99)
 Tel. work: +31 30 274 2295 / +31-6-52398829
 E-mail: leo.posthuma@rivm.nl

Education history

1987 – 1992 PhD, Vrije Universiteit Amsterdam, Faculty of Biology, '*Genetic ecology of metal tolerance in Collembola*'. Promotor: Prof.dr. N.M. Van Straalen (June 3, 1992)
 1986 – present On-the-job trainings (a.o. science writing, project management, project acquisition, quality management, line management, communication, science-policy interfacing, complex projects, R-basis, R-statistics)
 1985 Didactics of biology, Teaching certificate (1st degree)
 1979 –1986 Study Biology, Vrije Universiteit Amsterdam, *Cum laude*
 Specializations: ecology, ecotoxicology, phytopathology, population genetics, evolutionary biology
 1972 – 1979 Secondary school, CSGAN, Amsterdam, VWO

Special certificates

Didactics of biology, Erkend Toxicoloog (Registered Toxicologist, Ned. Ver. Toxicologie), registered EUROTOX toxicologist (Association of European Toxicologists and European Societies of Toxicology), registered Environmental Risk Assessor (Society of Environmental Toxicology and Chemistry), R (basis), R (statistics)

Appointments

2016 – now Extraordinary professor Sustainability and Environmental Risk, Radboud University, Dpt. Env. Science
 2014 – now Co-designer and steering team member of the RIVM Academy
 2013 – now Senior Scientist, RIVM, Centre for Sustainability, Environment and Health, the Netherlands
 2008 – 2012 Head, Dpt. of Soils and Sediments, RIVM, Laboratory for Ecological Risk Assessment, the Netherlands
 2002 – 2012 Senior Scientist, RIVM, Laboratory for Ecological Risk Assessment, RIVM, the Netherlands
 1996 – 2002 Senior Scientist, RIVM, Laboratory for Ecotoxicology, RIVM, the Netherlands
 1992 – 1996 Scientist, RIVM, Laboratory for Ecotoxicology, the Netherlands.
 1987 – 1992 PhD researcher, Vrije Universiteit, Amsterdam
 1986 – 1987 Associate researcher, Vrije Universiteit, Amsterdam

Academic activities

Teaching

Professor at Radboud University since 2016. Course leader “Risk management of chemicals”. Regularly guest lecturer and practice-instructor for MSc and Postdoc courses at Radboud Universiteit, Vrije Universiteit, Universiteit Amsterdam, Utrecht Universiteit, Wageningen University, IHE-Delft, SENSE-research school. Mentor SETAC risk assessment certification program (PhD-level, 2015+). High-school teaching practices, Han Fortmann College Heerhugowaard, 1 yr (teaching certificate).

Academic staff (co-)supervised

MSc:	R.F. Hogervorst (Vrije Universiteit), B. Widianarko (Vrije Universiteit, University Satya Wacana, Indonesia), F. Mogo (Int. Inst. Hydrol. Environ. Engin., Delft), H. Boonman (University Utrecht), L. Weltje (University Utrecht), M. Mesman (Vrije Universiteit), R.P.J. Janssen (University Utrecht), K.Kapo (Wright State University, Dayton, OH), Maïke Hansen (University Warwick, currently Radboud University, Fac. Science, Chemistry), L. Boonekamp (Univ. Amsterdam), S. Kuiper (University Utrecht), S. van Olst (University Utrecht), Vivienne van Rees Vellinga (University Utrecht), D. van Denzel (University Utrecht)
MSc (Radboud)	I. Ottenbros; R. Hoondert; P. Fischer; T. van der Kruk, F. Wang
PhD (Radboud)	M.C. Zijp, A. Del Signore (née Fedorenkova), C. Zillien (ongoing), H. Moreire (ongoing),
PhD (external):	K. Kapo (Wright State University, Dayton, OH), A. Pilières (Radboud University), M. Gustavsson (Univ. Göteborg), P. Post (Utrecht University), S. Oginah (DTU-Denmark), G. Teunisse (NIOO/WUR)
Postdoc:	F.de A. Anton-Sanchez (Univ. Madrid), M. Vijver (VU/RIVM), F. Bregoli (Radboud), P. Vermeiren (Radboud)

Summary of recent research

My research concerns the development, validation and application of scientific approaches to address and solve complex, multi-faceted environmental problems, with emphasis on further development of the ‘solution-focused’ paradigm to risk and sustainability assessment, and focus on impacts of multiple-stressors on integrity of ecosystems. With an eye on innovating practice- and oriented approaches to problem-solving, this requires combining principles, approaches and data from various disciplines, amongst which ecology, ecotoxicology, and life cycle assessment. Typical results are scientific manuscripts, versatile tools and approaches, and specific policy- or decision support outputs. I see applying evidence-based situation assessment to forward solution-focused sustainable development as particularly challenging and rewarding, and multiple-stress impact assessment on ecosystems as key for diagnosing and countering adverse effects, with benefits for man and the environment. Past contributions to the field in this vein are: development, validation and implementation formats of- and tools for (1) quantitative methods for site-specific impacts assessment of chemical mixtures, (2) eco-epidemiological analysis of (bio)monitoring data (site-specific multi-stress diagnosis of ecological impacts), (3) disaster assessment and management esp. for chemical incidents, (4) sustainable management of contaminated water-, sediment and soil systems, and (5) innovating and improving assessment principles and approaches for complex environmental risk- and sustainability problems. Current research activities and projects relate to the research themes of the Chair “*Sustainability and Environmental Risks*”. The research commonly results in scientific manuscripts as well as adopted novel practices in environmental protection, assessment and management, from local to global.

International activities

Strategic scientific underpinning of solution-focused risk and sustainability policies and decisions implies active roles as researcher, work package leader, subproject leader, lecturer, (meeting) organizer or meeting/session chairing in an international context. This resulted in the acquisition of- and participation in international projects in a European context (a.o. EUFRAM, NoMiracle, ModelKey, SOLUTIONS, EU-Product/Organisation Environmental Footprint), an Atlantic context (eco-epidemiological diagnosis, esp. with European + U.S. partners) and a global context (solution-focused risk and sustainability assessment; UN-disaster assessment and management; UNEP-SETAC-Life Cycle Initiative, USEtox®), active liaison to activities of international strategic interest (liaising RIVM-research to e.g. the UNEP/SETAC Life Cycle Initiative, or to the concept of designing chemical footprinting techniques *vis a vis* the concept of planetary boundaries), and various collaborative publications, tools, lectures and vision papers. International workshop organization and participation resulted

in (edited) books, influential in the field, especially *Species Sensitivity Distributions in Ecotoxicology*, and a vital network of expert contacts spanning academia, government and industry.

Specific tasks are:

- 2021 – present: invited member of the SETAC Sounding Board group to assist the SETAC-representative to the High-Level Round Table for the EU-Green Deal Chemical Strategy for Sustainability
- 2020 – present: member Scientific Advisory Board for GWRC working group on effect-based methods
- 2019 – present: member USEtox scientific core team
- 2016 – present: member Scientific Advisory Board for FRAM-Centre (Univ. Gothenburg)

Project acquisition

I initiated / contributed to the acquisition of research projects for various government commissioners, including incidental PPS (Public Private Partnership) funding. Funding additional to RIVM-program and project funding equaled a budget of >12 M€ was obtained from:

European Environmental Research Organization (EERO, 1992)

- Post Doc (granted 1992-1993, not executed due to acceptance of position at RIVM, 1992) “*Mechanisms of metal tolerance in genetically adapted soil animal populations*” (with S.P. Hopkin, UK-University Reading)

Dutch Ministry of the Environment (1992-now)

- A suite of projects within the RIVM-Government environmental research and advice agenda 1992 – current.
- Additional funding for amongst others (a) project “Integrated Risk Assessment of- and decision support system development for slight sediment contamination in relation to risk of deposition on adjacent land”, (b) the UN-Flash Environmental Assessment Tool (Scientific underpinning and reporting), (c) QSARs accumulation and ecotoxicity of highly lipophilic compounds (PAH), (d) ad hoc design incident safe distances for nature areas, (e) sustainable options re-use organic waste as fertilizer after co-digestion/green gas production, (f) RIVM co-funding for pertinent (EU)projects, (g, ongoing), a 2.1 mEuro funding for the Knowledge Impulse Water Quality project “Ecological Key Factor Toxicity”, (h, ongoing), TTW-NKI-project SUSPECT), (i) quantifying mixture toxic pressure of Dutch surface waters (past, present and future).

RIVM-Strategic Research Program (SPR) and other (2003 – now)

- QERAS (2003-2006), *Quantitative Environmental Risk and Sustainability*
- EIA (2007-2010), *Environmental Impact Assessment*
- ICQ-SAF (2010), “*I seek you – Sustainability Assessment Framework*”
- Measurably Sustainable (2011-2015)
- RIVM-Corporate Sustainability stimulation project
- Silver SSD (SSD25), “*25 years of developments and use: Reviewing, evaluating an paths forward in Species Sensitivity Distribution modeling*”
- SOFOCLES (2014-2015), “*Solution-focused Core Lessons in the Evaluation of Sustainability*”
- RIVM2020 – Versatile use of scientific insights for risk management purposes
- SafeBBE (2013-2018), on safe design and use of biobased products
- CE-QONNECT (2019-now), on Circular Economy (scenarios and impacts)
- CE-TRANSIT (2019-now), on Circular Economy (indicators)

NWO-projects (1992-now)

- NWO-ALW Project “*Genetic variance in metal-exposed arthropod populations*”, nr. 805-33.403-P (VU, UvA, RIVM)
- NWO-SSEO Project “*Integration and validation of the data and findings of the national research stimulation program on Systems-Oriented Ecotoxicological Research (SSEO)*”, (RIVM, RIZA, Alterra)
- NWO-ERGO program, project “*ERGONema*”, to develop a validated molecular “*Omic*” barcode for testing GM-plant side effects on soil health” (RIVM, WUR, BLGG)
- TTW-TKI project “*SUSPECT*”, on emerging chemicals in the aquatic environment

STOWA (2014 – now)

- *Ecologische Sleutelfactor 8: Toxiciteit. “Design of the two-tracked ESF8 approach and tool”* (RIVM, Ecofide, Deltares, Waternet)
- *Ecologische Sleutelfactor 8: Validatie. “Validation of the mixture toxic pressure concept with Dutch field data”* (RIVM, Ecofide)
- Knowledge Impulse Water Quality program, *Ecologische Sleutelfactor Toxiciteit – development and implementation of version 2.0’* (RIVM, Deltares, KWR, WEnR and case study partners)
- “FOTO-tox-NL” – summarizing 44 million monitoring data points into a map of mixture toxic pressure in Dutch surface waters, for analyzing spatial and temporal trends

EU Framework projects (2003- now)

- EUFRAM (FP5; European Framework for the Probabilistic Risk Assessment of Plant Protection Products), WP-leader, Member steering committee, Expert
- NoMiracle (FP6: NoMiracle: Novel Methods for Integrated Risk Assessment of Cumulative Stressors in Europe), Expert
- ModelKey (FP6: Models for assessing and forecasting the impact of environmental key pollutants on freshwater and marine ecosystems and biodiversity), Expert
- SOLUTIONS (FP7: Solutions for present and future emerging pollutants in land and water resources management), WP-leader, Expert
- PROMISCES (FP7), Expert

Other agencies:

- UN: Flash Environmental Assessment Tool (RIVM, Ministry VROM, Ministry Foreign Affairs, RHDHV, UN)
- CEFIC: TIPTOP (VU, Deltares, RIVM)
- UK-Environment Agency (eco-epidemiology of England and Wales)
- BeBasic (Biotechnology based Ecologically Balanced Sustainable Industrial Consortium) (RIVM et al.)
- Long-term “mutual benefit” collaboration on development and use of methods for eco-epidemiological analyses of exposures and impacts of contaminant mixtures with legacy field monitoring data (RIVM + international team)
- EFSA: Integrated human and ecological risk assessment for mixtures

Abbreviations: NWO, Netherlands Organization for Scientific Research; RUN, Radboud University Nijmegen; RIVM, National Institute for Human Health and the Environment, ESFA: European Food Safety Authority

Output indicators*Scientific - written*

- Scopus: As of December 2021, 121 refereed articles in Scopus that I (co)authored were cited 5155 times in total, Scopus H-index 41.
- Web of Science: As of December 2021, 123 refereed articles in WoS that I (co)authored were cited 4211 times in total, Scopus H-index 36.
- Scholar Google: given the role of RIVM as advisor at the science-policy interface, additional analyses focusing on use and application of publications and reports as of Jun 2021, shows 9107 citations in total, Google Scholar H-index 53.

Highest-cited papers are “Species Sensitivity Distributions in Ecotoxicology” (2002; 903 times, book), “Heavy-metal adaptation...” (1993; 381 times), “Complex mixture toxicity...” (2005; 367 times), and “Equilibrium partitioning” (1997, 251 times), covering all exposure- and effects assessment aspects of ecological risk assessment and life-cycle impact assessment.

Recent highly cited papers are on protection, assessment and management of water pollution: “Impacts of multiple stressors ...” (2020, 120 times), “Multiple stressors determine river ecological status...” (2021, 22 times), “Chemical pollution imposes limitations...” (2020, 25 times), “Towards a review of the Water Framework Directive...” (2017, 271 times) and “The SOLUTIONS project...” (2015, 192 times), “Guidance on harmonised methodologies for human health, animal health

and ecological risk ..." (2019, times), "Species Sensitivity Distributions...for 12k chemicals" (2019, 69 times). See further: <http://scholar.google.com/citations?user=IES41U0AAAAJ&hl=en>. Science-policy interfacing can be recognized in a series of Policy Briefs from the SOLUTIONS project (<https://www.springeropen.com/collections/solutions>), which summarized >300 scientific publications into approx. 10 key messages for policy formulation, at the interface of safe chemical use and water quality protection, assessment and management.

Scientific – (invited) lectures

I am regular (>120 times) speaking, presenting and chairing at international workshops and conferences, including invited lectures. Invited keynote lectures at e.g. European Framework Programs (e.g., NoMiracle) and conferences (e.g., SETAC) as well as for stakeholders (e.g., KEMI, Sweden; UK-Environment Agency, Danish EPA, U.S. National Academy of Sciences Committee) are made as appropriate. Ten selected (keynote) lecture invitations and conference lectures are:

1. Raad voor Leefomgeving en Infrastructuur (RLI; Dutch Council for Environment and Infrastructure) Invited keynote "Veilig omgaan met stoffen in de leefomgeving"
2. SOLUTIONS Conference and End-user meeting, Paris, 2018; Invited lectures "Eco-risks of chemical pollution" and "Chemical footprints and solutions"
3. SOLUTIONS final conference, Leipzig, 2018; Keynote "Chemical quality and solutions to a non-toxic environment"
4. Conference Water Science for Impacts", Wageningen, 2018: keynote "Solution-focused water quality assessment and management"
5. Mixture focal meeting EU-policies, Köln, 2017; invited keynote, "Managing mixtures in the European environment"
6. EMETNET-meeting on environmental incidents in Europe, 2017; "The UN-Flash Environmental Assessment Tool, for assessing and management of chemical incidents around the globe"
7. Conference "Plant Kongress", Denmark, 2015. Invited keynote lecture: "How to balance agricultural production and environmental quality: a holistic perspective". Keywords: eco-epidemiology of stressors impacts in agricultural landscapes, sustainable solutions.
8. EDA-Emerge EU-program Closure Conference, 2015, Leipzig, Germany. Invited keynote "Emerging approaches for solution-focused pollution impact reduction". Keywords: solution focus, risk assessment, chemicals
9. Conference "Defining a safe operating space at a business level: towards (planetary) boundaries for chemical pollution", UK, Univ. Surrey, Society Industrial Ecology, 2014. Invited lecture "Towards (planetary) boundaries for chemical pollution". Keywords: planetary boundary, chemical pollution, business-level types of solutions to boundary transgressions
10. Workshop "Estimating toxicity thresholds for aquatic ecological communities from sensitivity distributions", Amsterdam, 2014. Invited opening keynote lecture: "Sense, simplicity and successes of SSDs in environmental protection, assessment and management". Keywords: Species Sensitivity Distributions, versatile use: risk assessment, LCA, risk management, sustainable development

Next to contributions to student courses, lectures are given as appropriate for audiences of regulators, scientists, stakeholders and laymen, to interface scientific results to societal explanation, implementation and use. Examples are contributions to the development of risk communication approaches (a novel RIVM-CSO theme) up till incident management course development (UN), including local citizen information (e.g., flooding versus contamination evaluation, municipality Lomm, along river Meuse).

Societal and advisory indicators

Scientific activities resulted also in a suite of practicable tools developed with colleagues within RIVM and around the world, to help solving contemporary environmental policy problems. Societal impact of project results I (co)created: substantial, nationally and internationally:

(1) Operational science-policy approaches.

Various complex environmental problems are currently handled with such tools and related insights, like:

- development and validation of the concept of toxic pressure of compounds and mixtures, used in a suite of globally-used tools and approaches in water, sediment and soil quality assessment, with extensions into approaches ranging from Life Cycle Assessments of industrial products (e.g., website Sustainability Consortium) up till disaster impact assessment and risk reduction tools (e.g., <https://www.stowa.nl/publicaties/ecologische-sleutelfactor-toxiciteit-hoofdrapport-deelrapporten-en-rekentools>, www.sleutelfactortoxiciteit.nl)

- mapping water pollution (mixture toxic pressure) in the Netherlands: <https://www.naturetoday.com/nl/nl/nature-reports/message/?msg=28378>
- contaminated soil management: development of the current Dutch soil management policies and the supporting web-tool: www.risicotoolboxbodem.nl
- contaminated sediment management: development of the current Dutch sediment-on-land deposition policies
- disaster assessment and management tool *Flash Environmental Assessment Tool* for the UN: development of a quick-response tool, regarding impacts on man, livelihoods and ecosystems (ecosystem services) (<https://eecentre.org/resources/feat/>)
- incident assessment tool for assessing potential impacts of chemical emissions on European protected nature areas
- waste management and sustainable solutions: balancing soil safety, energy generation from organic waste, fertilizer loads, and resource allocation
- water management: landscape-scale eco-epidemiological diagnosis and impact management, related to the concept of *Good Ecological Status* in the Water Framework Directive, especially regarding recognizing toxic mixture effects causing deviance from *Good Ecological Status*
- generalized methods and data bases for environmental assessment, a.o., the RIVM e-toxBASE
- development of an approach for determining chemical overshoot (emissions exceed carrying capacity), i.e. chemical footprinting
- development of sustainability evaluation tools, amongst others the implementation of the 'solution-focused' paradigm in risk and sustainability assessments (ongoing)
- co-development of the USETOX-based principle for deriving effect factors for Life Cycle Impact Assessment of chemicals on biodiversity, used in the European Product Environmental Footprint (PEF), influencing EU-sustainable production and consumption policies (https://ec.europa.eu/environment/publications/recommendation-use-environmental-footprint-methods_en and <https://usetox.org/>)
- development of impact models to enable quantifying impacts on biodiversity for 12,386 compounds, for worldwide use in environmental protection, assessment, LCIA, and management

(2) Advisory

- Advisor Danish Ministry of the Environment and the Danish Environmental Protection Agency, cumulative risk assessment
- Advisor US-National Academy of Science, Commission on Phthalates and Cumulative Risk Assessment
- Advisor Committee Maaswerken
- Advisor (interface science and legal prosecution case), Province Zuid-Holland, Raad van State, Case: "Risks of large scale re-use or dumping of PAH-amended secondary waste" (case won)
- Advisor (interface science and legal prosecution case), Ministry V&W, Case "Risks of contamination Rijkse Bemden" (case solved)
- Advisor UK Committee on the Water Framework Directive Strategy
- Advisor International Committee on Radiological Protection, ICRP, 2015+
- Advisor, member crisis management team, leader Environmental Impact Evaluation branche, Ministry VROM, 2011; Case: Environmental and human risks of depositions chemical store fire, Moerdijk; case clear (result: negligible impacts on environment and protected nature in zones North of Hollandsch Diep)
- Advisor, Ministry VROM, 2010/2011; Case Environmental and human risks of depositions BOPEC Fire Bonaire (result: advice accepted)
- Advisor, Ministry VROM, 2010/2011; Case Environmental risks PF-compounds Haarlemmermeer (result: advice accepted)
- Advisor, UN (United Nations Joint Environment Unit), Building and using the Flash Environmental Assessment Tool. Making and implementation of Version 1. Ibid. Version 2. Ibid. Pocket Guide version 2. Ibid. Towards eFEAT. Ibid. Case studies workshop. Ibid. Web-based study material.
- Oral, teleconference and on-site public presentations and advice, e.g., in the municipality Lomm (river Meuse), government Bonaire, stakeholders sediment deposition on land, et cetera.
- Advisor, NTA8080 en 8081 (Nederlandse Technische Afspraak over duurzaam gebruik van organische (rest)stromen voor energiedoeleinden)
- Advisor in advisory team to CEO-RIVM, on design and implementation Expert-track of the RIVM-Academy (2014+)

- Advisor of a suite of Dutch waterboards on implementing Ecological Key Factor Toxicity
- Advisor on Dutch and European water quality protection, assessment and management

Other academic activities

Book editor

- Editor Textbook "*Species Sensitivity Distributions in Ecotoxicology*" (Lewis Publishers, 2002), with Glenn W. Suter II and Theo P. Traas
- Co-editor Textbook "*Extrapolation practices in the Effect Characterization of Chemicals*", with K. Solomon et al.
- Contributions to the on-line course book on Ecotoxicology by Van Gestel et al.

Project review- and evaluation committees

- Reviewer of 25+ research proposals, nationally and internationally.

Recent membership PhD evaluation- and defense committees

- PhD Paulin (Radboud University Nijmegen/chair) - 2021
- PhD Van den Berg (WUR), 2020
- PhD Hoondert (Radboud University Nijmegen, chair) – 2020
- PhD De Baat (University of Amsterdam) – 2020
- PhD Douzich (Radboud Universiteit Nijmegen) – 2019
- PhD Collas (Radboud Universiteit Nijmegen) – 2019
- PhD Elshout (Radboud Universiteit Nijmegen) – 2019
- PhD Koopman (Radboud Universiteit Nijmegen) – 2019
- PhD Steinmann (Radboud Universiteit Nijmegen) – 2018
- PhD Vieira (Radboud Universiteit Nijmegen) – 2018
- PhD Xiaogang Jiang (Univ. Copenhagen, Denmark) – 2017 (incl. leescommissie)
- PhD Matthews (Radboud Universiteit Nijmegen) – 2016 (incl. leescommissie)
- PhD Oldernkamp (Radboud Universiteit Nijmegen) – 2016 (incl. leescommissie, cum laude)
- PhD de Hoop (Radboud Universiteit Nijmegen) – 2016
- PhD Korsman (Radboud Universiteit Nijmegen) – 2016 (incl. leescommissie)
- PhD A. Sterk (Universiteit Utrecht) - 2016
- PhD Van Goethem (Radboud Universiteit Nijmegen) - 2015
- PhD A. Pilières (Radboud Universiteit Nijmegen) - 2015
- PhD M. Gustavsson (Goteborg University) - 2015
- PhD A. Del Signore (born Fedorenkova) (Radboud Universiteit Nijmegen) - 2015
- PhD L. Golsteijn (Radboud Universiteit Nijmegen) - 2014
- PhD R.A. Loayza-Muro (Universiteit van Amsterdam) - 2013
- PhD K. Kapo (Wright State University, OH, USA) - 2009
- PhD I. Sterenberg (Vrije Universiteit Amsterdam) - 2003

Publication peer reviews

Regular reviewer for scientific journals (amongst others Applied Soil Ecology, Aquatic Toxicology, Archives Environmental Contamination Toxicology, Chemosphere (3), Critical Reviews in Toxicology (1), Ecotoxicology and Environmental Safety, Environment International (3), Environmental Pollution (3), Environmental Science and Policy (3), Environmental Sciences Europe (2), Environmental Science and Pollution Research, Environmental Science and Technology (17), Environmental Toxicology and Chemistry (16), Human and Ecological Risk Assessment, Freshwater Biology (1), Integrated Environmental Assessment and Management (3), Journal of Applied Ecology (1), Journal of Environmental Radioactivity (1), Journal of Industrial Ecology (1), Journal of Toxicology and Environmental Health, Marine Pollution Bulletin, Philosophical Transaction of the British Ecological Society, Regulatory Pharmacology and Toxicology, Risk Analysis (2), Science of the Total Environment (2), Sustainability, Toxics, WIRE Water).

Publons metrics: 70 verified reviews (P97), 10 verified reviews 2021 (P93), ratio reviews:manuscripts = 0,6:1 (median 0,3:1)

Rewards

Green Star Award (issued by UN + International Green Cross), awarded to the Dutch government, for developing FEAT (a disaster assessment and management tool) by RIVM (combined with FEAT training and incident measurement facilities). Note: the application of this tool in the context of the 'Toxic remnants of war' network resulted in an award for 'Pax for Peace' (studying the environmental consequences of the wars in Iraq and Syria).

Administration and professional societies

Department Head 2008-2012, RIVM

Member of various global workgroups on developing diagnostic, eco-epidemiological techniques; member of active teams for extrapolation techniques in environmental risk assessment (1992 – now)

(Co-)Organizer committees of national and international scientific meetings and workshops

Member of the Society for Environmental Toxicology and Chemistry, Netherlands Society of Toxicology, Netherlands-Flamish Society of Ecology.

Skills and competences

Languages

- Dutch : mother tongue
- English : effective operational proficiency
- French: reasonable
- German: reasonable

Other skills and competences

Chair, treasurer and/or member of various executive teams of volunteer organizations (local, regional and national) and school management advisory bodies (primary/secondary school); basketball referee.

Journal publications

1. Verhoeff, K., et al., Changes in pH and the Production of Organic Acids During Colonization of Tomato Petioles by *Botrytis cinerea*. *Journal of Phytopathology*, 1988. 122(4): p. 327-336.
2. Posthuma, L., Genetic differentiation between populations of *Orchesella cincta* (Collembola) from heavy metal contaminated sites. *Journal of Applied Ecology*, 1990: p. 609-622.
3. Frati, F., P.P. Fanciulli, and L. Posthuma, Allozyme variation in reference and metal-exposed natural populations of *Orchesella cincta* (insecta: Collembola). *Biochemical Systematics and Ecology*, 1992. 20(4): p. 297-310.
4. Posthuma, L., R.F. Hogervorst, and N.M. Van Straalen, Adaptation to soil pollution by cadmium excretion in natural populations of the springtail, *Orchesella cincta*. *Evolution*, 1992. 47: p. 619-631.
5. Posthuma, L. and N.M. Van Straalen, Heavy-metal adaptation in terrestrial invertebrates: A review of occurrence, genetics, physiology and ecological consequences. *Comparative Biochemistry and Physiology*, 1992. 106 C: p. 11-38.
6. Posthuma, L., et al., Genetic variation and covariation for characteristics associated with cadmium tolerance in natural populations of the springtail *Orchesella cincta* (L.). *Evolution*, 1993. 47(2): p. 619-631.
7. Posthuma, L., et al., Life-history patterns in metal-adapted Collembola. *Oikos*, 1993: p. 235-249.
8. Posthuma, L. and G. Janssen, Genetic variation for life-history characteristics in reference populations of *Orchesella cincta*(L.) in relation to adaptation to metals in soils. *Acta Zoologica Fennica*, 1995(196): p. 301-306.
9. Janssen, R., et al., Equilibrium partitioning of heavy metals in Dutch field soils. I. Relationship between metal partition coefficients and soil characteristics. *Environmental Toxicology and Chemistry*, 1997. 16(12): p. 2470-2478.
10. Janssen, R., et al., Equilibrium partitioning of heavy metals in Dutch field soils. II. Prediction of metal accumulation in earthworms. *Environmental Toxicology and Chemistry*, 1997. 16(12): p. 2479-2488.
11. Peijnenburg, W., et al., A conceptual framework for implementation of bioavailability of metals for environmental management purposes. *Ecotoxicology and Environmental Safety*, 1997. 37(2): p. 163-172.
12. Posthuma, L., et al., Single and joint toxic effects of copper and zinc on reproduction of *Enchytraeus crypticus* in relation to sorption of metals in soils. *Ecotoxicology and Environmental Safety*, 1997. 38: p. 108-121.
13. Rutgers, M., et al., Rapid method for assessing pollution-induced community tolerance in contaminated soil. *Environmental Toxicology and Chemistry*, 1998. 17(11): p. 2210-2213.
14. Peijnenburg, W.J.G.M., et al., Relating environmental availability to bioavailability: Soil type dependent metal accumulation in the oligochaete *Eisenia andrei*. *Ecotoxicology and Environmental Safety*, 1999. 44: p. 294-310.
15. Peijnenburg, W.J.G.M., et al., Prediction of metal bioavailability in Dutch field soils for the oligochaete *Enchytraeus crypticus*. *Ecotoxicology and Environmental Safety*, 1999. 43: p. 170-186.
16. Posthuma, L. and C.E. Smit, Voldoet de ecotoxicologische onderbouwing van generieke bodemnormen? *Bodem*, 1999. 9(4): p. 142-144.
17. Franken, R., et al., Verspreiding van baggerspecie op land. *H2O*, 2000(14/15): p. 24-25.
18. Jager, T., et al., Toxicokinetics of polycyclic aromatic hydrocarbons in *Eisenia andrei* (oligochaeta) using spiked soil. *Environmental Toxicology and Chemistry*, 2000. 19(4 I): p. 953-961.
19. Jager, T., et al., Erratum: Toxicokinetics of polycyclic aromatic hydrocarbons in *Eisenia andrei* (Oligochaeta) using spiked soil (*Environmental Toxicology and Chemistry* (2000) 19 (953-961)). *Environmental Toxicology and Chemistry*, 2000. 19(6): p. 1702.
20. Peijnenburg, W., et al., Quantification of metal bioavailability for Lettuce (*Lactuca sativa* L.) in field soils. *Archives of Environmental Contamination and Toxicology*, 2000. 35: p. 1463-1488.
21. Schouten, A., et al., Development of a biological indicator for soil quality. *SETAC Globe*, 2000. 1(4): p. 30-32.
22. Vijver, M., et al., The impact of metal pools and soil properties on metal accumulation in *Folsomia candida* (Collembola). *Environmental Toxicology and Chemistry*, 2001. 20(4): p. 712-720.
23. Boivin, M.-E., et al., Determination of field effects of contaminants - Significance of pollution-induced community tolerance. *Human and Ecological Risk Assessment*, 2002. 8(5): p. 1035-1055.
24. Römbke, J., J. Notenboom, and L. Posthuma, The effects of zinc on enchytraeids: The Budel case study. *Natura Jutlandica*, 2002. 2: p. 54-67.
25. Smit, C., et al., Effects of zinc contamination on a natural nematode community in outdoor soil mesocosms. *Archives of Environmental Contamination and Toxicology*, 2002. 42(2): p. 205-216.
26. Posthuma, L., M. Rutgers, and F. Swartjes, SSD - Wat kun je er mee? Ecologische risico's in bodem hanteerbaar maken. *Bodem*, 2003. 13(3): p. 115-118.

27. Vijver, M., et al., Metal uptake from soils and soil-sediment mixtures by larvae of *Tenebrio molitor* (L.) (Coleoptera). *Ecotoxicology and Environmental Safety*, 2003. 54: p. 277-289.
28. Van Beelen, P., et al., Location-specific ecotoxicological risk assessment of metal-polluted soils. *Environmental Toxicology and Chemistry*, 2004. 23(11): p. 2769-2779.
29. De Zwart, D. and L. Posthuma, Complex mixture toxicity for single and multiple species: Proposed methodologies. *Environmental Toxicology and Chemistry*, 2005. 24(10): p. 2665-2676.
30. Peijnenburg, W., et al., Short-term ecological risks of depositing contaminated sediment on arable soil. *Ecotoxicology and Environmental Safety*, 2005. 60: p. 1-14.
31. De Zwart, D., et al., Predictive models attribute effects on fish assemblages to toxicity and habitat alteration. *Ecological Applications*, 2006. 16(4): p. 1295-1310.
32. Eijssackers, H.J.P., L. Posthuma, and M. Vijver, Gebiedsbeleid helpt diffuse verontreiniging oplossen. *Milieu*, 2006. 7(2008): p. 38-39.
33. Harbers, J.V., et al., Estimating the Impact of High-Production-Volume Chemicals on remote ecosystems by toxic pressure calculation. *Environmental Science and Technology*, 2006. 40: p. 1573-1580.
34. Posthuma, L. and D. De Zwart, Predicted effects of toxicant mixtures are confirmed by changes in fish species assemblages in Ohio, USA, rivers. *Environmental Toxicology and Chemistry*, 2006. 25(4): p. 1094-1105.
35. Posthuma, L., H. Eijssackers, and M. Vijver, Toxische stoffen, normen en ecologische risico's-hoe zit dat. *Milieu*, 2006. 7: p. 19-23.
36. Posthuma, L. and M.G. Vijver, Normoverschrijding beoordelen via locatiespecifieke risicoanalyses. *De grauwsluier ontsluit. Bodem* 26, 2006. 26(142-146).
37. Posthuma, L., et al., Beslissen over bagger op bodem. Waarom moeilijk doen als het makkelijk kan. *Bodem*, 2006. 4: p. 142-146.
38. Jager, T., et al., Novel view on predicting acute toxicity: Decomposing toxicity data in species vulnerability and chemical potency. *Ecotoxicology and Environmental Safety*, 2007. 67(3): p. 311-322.
39. Mulder, C., R. Baerselman, and L. Posthuma, Empirical maximum lifespan of earthworms is twice that of mice. *Age*, 2007.
40. Mulder, C., et al., Age Structure and Senescence in Long-Term Cohorts of *Eisenia andrei* (Oligochaeta: Lumbricidae). *The Journals of Gerontology: Series A*, 2007. 62(12): p. 1361-1363.
41. Mulder, C., et al., Transgenic maize containing the Cry1Ab protein ephemerally enhances soil microbial communities. *AMBIO*, 2007. 36(4): p. 359-361.
42. Posthuma, L. and A. Wintersen, Bodembeheer afstemmen op risico's. *De risicotoolbox is er voor u!* *Bodem*, 2007. 17(3): p. 120-122.
43. Van Zelm, R., et al., Uncertainty in msPAF-based ecotoxicological effect factors for freshwater ecosystems in life cycle impact assessment. *Integrated Environmental Assessment and Management*, 2007. 3(2): p. 203-210.
44. Wintersen, A., et al., Bodembeheer op maat met de risicotoolbox. *Land + Water*, 2007. 10: p. 48-49.
45. Henning-De Jong, I., et al., Ranking of agricultural pesticides in the Rhine-Meuse-Scheldt basin based on Toxic Pressure in marine ecosystems *Environmental Toxicology and Chemistry*, 2008. 27(3): p. 737-745.
46. Kapo, K.E., et al., Quantitative lines of evidence for screening-level diagnostic assessment of regional fish community impacts: a comparison of spatial database evaluation methods *Environmental Science and Technology*, 2008. 42(24): p. 9412-9418.
47. Posthuma, L., et al., Ecological effects of diffuse mixed pollution are site-specific and require higher-tier risk assessment to improve site management decisions: A discussion paper. *Science of the Total Environment*, 2008. 406(3): p. 503-517.
48. Vijver, M.G., et al., Determining metal origins and availability in fluvial deposits by analysis of geochemical baselines and solid-solution partitioning measurements and modelling. *Environmental Pollution*, 2008. 156(3): p. 832-839.
49. Brack, W., et al., Towards a holistic and risk-based management of European river basin *Integrated Environmental Assessment and Management* 2009. 5(1): p. 5-10.
50. Brack, W., et al., European River Basins at Risk. *Integrated Environmental Assessment and Management*, 2009. 5(1): p. 2-4.
51. Brand, E., L. Posthuma, and D. de Zwart, FEAT--Flash Environmental Assessment Tool. *Bodem*, 2009. 19(5): p. 22.
52. De Zwart, D., et al., Diagnosis of ecosystem impairment in a multiple-stress context-How to formulate effective river basin management plans. *Integrated Environmental Assessment and Management*, 2009. 5(1): p. 38-49.

53. Henning-de Jong, I., et al., The impact of an additional ecotoxicity test on ecological quality standards. *Ecotoxicology and Environmental Safety*, 2009. 72(8): p. 2037-2045.
54. Jong, I.H., et al., Ranking of agricultural pesticides in the rhine-meuse-scheldt basin based on toxic pressure in marine ecosystems. *Environmental Toxicology and Chemistry*, 2009. 27(3): p. 737-745.
55. Van Zelm, R., et al., Uncertainty in msPAF-based ecotoxicological effect factors for freshwater ecosystems in life cycle impact assessment. *Integrated Environmental Assessment and Management*, 2009. 3(4): p. e6-e37.
56. Van Zelm, R., et al., Pesticide ecotoxicological effect factors and their uncertainties for freshwater ecosystems. *International Journal of Life Cycle Assessment*, 2009. 14(1): p. 43-51.
57. Hein, M., et al., MODELKEY. Key findings and recommendations for reaching the EU Water Framework Directive's quality objectives. *Umweltwissenschaften und Schadstoff Forschung* 2010. 22: p. 217-228.
58. Spijker, J., G. Mol, and L. Posthuma, Regional ecotoxicological hazards associated with anthropogenic enrichment of heavy metals. *Environmental Geochemistry and Health*, 2011. 33(4): p. 409-426.
59. Struijs, J., et al., Field sensitivity distribution of macroinvertebrates for phosphorus in inland waters. *Integrated Environmental Assessment and Management*, 2011. 7(2): p. 280-286.
60. Breure, A.M., et al., Ecosystem services: A useful concept for soil policy making! *Current Opinion in Environmental Sustainability*, 2012. 4(5): p. 578-585.
61. Burton, G.A., et al., Making ecosystem reality checks the status quo. *Environmental Toxicology and Chemistry*, 2012. 31(3): p. 459-468.
62. Posthuma, L. and D. De Zwart, Predicted mixture toxic pressure relates to observed fraction of benthic macrofauna species impacted by contaminant mixtures. *Environmental Toxicology and Chemistry*, 2012. 31(9): p. 2175-2188.
63. Posthuma, L., et al., De ecologische betekenis van toxische druk in verontreinigde sedimenten. *H2O*, 2012. 45(20): p. 33-35.
64. Posthuma, L., J. Spijker, and D. de Zwart, " Meer risico= meer beheer": 't kan! *Bodem*, 2012. 22(4): p. 9.
65. Swartjes, F., et al., State of the art of contaminated site management in The Netherlands: Policy framework and risk assessment tools. *The Science of the total environment*, 2012. 427-428: p. 1-10.
66. Swartjes, F.A., et al., In zeven fasen ontleed. Beoordeling van bodemkwaliteit in retrospectief. . *Bodem*, 2012. 22(5): p. 15-17.
67. Swartjes, F.A., et al., State of the art of contaminated site management in The Netherlands: Policy framework and risk assessment tools. *Science of the Total Environment*, 2012. 427-428: p. 1-10.
68. Swartjes, F.A., et al., 25 Jahre Bodenqualitätsbeurteilung im Rahmen des Niederländischen Bodenschutzgesetzes – gegliedert in sieben Phasen. *Zeitschrift Bodenschutz*, 2013. 3(13): p. 100-103.
69. Jolliet, O., et al., Global guidance on environmental life cycle impact assessment indicators: findings of the scoping phase. *International Journal of Life Cycle Assessment*, 2014. 19: p. 962-967.
70. Kapo, K.E., et al., Developing a foundation for eco-epidemiological assessment of aquatic ecological status over large geographic regions utilizing existing data resources and models. *Environmental Toxicology and Chemistry*, 2014. 33(7): p. 1665-1677.
71. Pilière, A., et al., Comparing responses of freshwater fish and invertebrate community integrity along multiple environmental gradients. *Ecological Indicators*, 2014. 43: p. 215-226.
72. Pilière, A., et al., Unraveling the relationships between freshwater invertebrate assemblages and interacting environmental factors. *Freshwater Science*, 2014. 33(4): p. 1148-1158.
73. Posthuma, L., et al., Beyond safe operating space: Finding chemical footprinting feasible. *Environmental Science and Technology*, 2014. 48(11): p. 6057-6059.
74. Posthuma, L., et al., Chemical footprints - Thin boundaries support environmental quality management. *Environmental Science and Technology*, 2014. 48, 13025-13026: p. 13025-13026.
75. Posthuma, L., et al., The Flash Environmental Assessment Tool: Worldwide first aid for chemical accidents response, pro action, prevention and preparedness. *Environment International*, 2014. 72(0): p. 140-156.
76. Schipper, A.M., et al., Deriving field-based species sensitivity distributions (f-SSDs) from stacked species distribution models (S-SDMs). *Environmental Science and Technology*, 2014. 48(24): p. 14464-14471.
77. Zijp, M., L. Posthuma, and D. van de Meent, Chemische voetafdruk: snel naar oplossingen voor watervervuiling. *H2O*, 2014. 47(12): p. 34-35.
78. Zijp, M.C., L. Posthuma, and D. Van de Meent, Definition and applications of a versatile chemical pollution footprint methodology. *Environmental Science and Technology*, 2014. 48: p. 10588-10597.

79. Zijp, M.C., L. Posthuma, and D. Van de Meent, De chemische voetafdruk en oplossingen voor watervervuiling. H2O - Online, 2014. nov. 2014: p. 34-35.
80. Brack, W., et al., The SOLUTIONS project: Challenges and responses for present and future emerging pollutants in land and water resources management. *Science of the Total Environment*, 2015. 503-504: p. 22-31.
81. Bruinen de Bruin, Y., et al., A tiered approach for environmental impact assessment of chemicals and their alternatives within the context of socio-economic analyses. *Journal of Cleaner Production*, 2015. 108, Part A: p. 955-964.
82. Sabater, S., et al., The Challenge: Assessing the effects of chemicals in freshwaters under multiple stress. (2) In response: The evidence—What actions are needed to effectively transfer from science to policy? An academic perspective. *Environmental Toxicology and Chemistry*, 2015. 34(6): p. 1208-1210.
83. Sabater, S., et al., In response: The evidence—What actions are needed to effectively transfer from science to policy? An academic perspective. *Environmental Toxicology and Chemistry*, 2015. 34(6): p. 1208-1210.
84. Zijp, M.C., et al., An identification key for selecting methods for sustainability assessments. *Sustainability*, 2015. 7(3): p. 2490-2512.
85. Belanger, S., et al., Future needs and recommendations in the development of Species Sensitivity Distributions: Estimating toxicity thresholds for aquatic ecological communities and assessing impacts of chemical exposures. *Integrated Environmental Assessment and Management*, 2016. 13(4): p. 664–674.
86. Pilière, A.F.H., et al., On the importance of trait interrelationships for understanding environmental responses of stream macroinvertebrates. *Freshwater Biology*, 2016. 61(2): p. 181-194.
87. Posthuma, L. and A.M. Breure, Naar een niet-toxisch milieu. *EnvChemTox Nieuwsbrief van de NVT*, 2016. 37: p. 5-8.
88. Posthuma, L., et al., Eco-epidemiology of aquatic ecosystems: Separating chemicals from multiple stressors. *Science of the Total Environment*, 2016. 573: p. 1303-1319.
89. Posthuma, L., J. Lijzen, and M. Sonnen, Naar één Europese markt vol groene producten. *Milieu*, 2016. March: p. 32-36.
90. Van der Oost, R., et al., Microverontreinigingen: hoe kun je ecologische risico's in water bepalen? *H2O-Water Matters*, 2016. 27 oktober 2016.
91. Van der Oost, R., et al., Ecological Key Factor Toxicity. Micro pollutants: How can you determine ecological risks in water? *H2O-Water Matters*, 2016. 2.
92. Zijp, M.C., et al., Definition and use of Solution-focused Sustainability Assessment: A novel approach to generate, explore and decide on sustainable solutions for wicked problems. *Environment International*, 2016. 91: p. 319-331.
93. Brack, W., et al., Towards the review of the European Union Water Framework management of chemical contamination in European surface water resources. *Science of the Total Environment*, 2017. 576: p. 720-737.
94. Broeren, M.L.M., et al., Environmental assessment of bio-based chemicals in early-stage development: a review of methods and indicators. *Biofuels, Bioproducts and Biorefining*, 2017: p. n/a-n/a.
95. Clift, R., et al., The challenges of applying planetary boundaries as a basis for strategic decision-making in companies with global supply chains. *Sustainability*, 2017. 9(279): p. 1-23.
96. de Vries, P., et al., The toxic exposure of flamingos to per- and Polyfluoroalkyl substances (PFAS) from firefighting foam applications in Bonaire. *Marine Pollution Bulletin*, 2017.
97. Munthe, J., et al., An expanded conceptual framework for solution-focused management of chemical pollution in European waters. *Environmental Sciences Europe*, 2017. 29(13): p. 1-16.
98. van Wezel, A.P., et al., Mitigation options for chemicals of emerging concern in surface waters; operationalising solutions-focused risk assessment. *Environmental Science: Water Research and Technology*, 2017. 3(3): p. 403-414.
99. Verones, F., et al., LCIA framework and cross-cutting issues guidance within the UNEP-SETAC Life Cycle Initiative. *Journal of Cleaner Production*, 2017. 161: p. 957-967.
100. Zijp, M.C., et al., Identification and ranking of environmental threats with ecosystem vulnerability distributions. *Scientific Reports*, 2017. 7(1): p. 9298.
101. Zijp, M.C., et al., Method selection for sustainability assessments: The case of recovery of resources from waste water. *Journal of Environmental Management*, 2017. 197: p. 221-230.
102. Posthuma, L., Evolution of the science and decision support of Species Sensitivity Distributions in environmental assessment and management. *Integrated Environmental Assessment and Management*, 2017 (Draft stage).
103. Dorne, J.L.C.M., et al., Harmonised risk assessment for human health, animal health and ecological risk assessment of combined exposure to multiple chemicals: a food and feed safety perspective. *Toxicology Letters*, 2018. 295: p. S37-S38.

104. Fantke, P., et al., Toward harmonizing ecotoxicity characterization in life cycle impact assessment. *Environmental Toxicology and Chemistry*, 2018. 37(12): p. 2955-2971.
105. Holmes, C.M., et al., Prospective aquatic risk assessment for chemical mixtures in agricultural landscapes. *Environmental Toxicology and Chemistry*, 2018. 37(3): p. 674-689.
106. McCarty, L.S., C.J. Borgert, and L. Posthuma, The regulatory challenge of chemicals in the environment: Toxicity testing, risk assessment, and decision-making models. *Regulatory Toxicology and Pharmacology*, 2018. 99: p. 289-295.
107. Posthuma, L., et al., Simplifying environmental mixtures—An aquatic exposure-based approach via land use scenarios. *Environmental Toxicology and Chemistry*, 2018. 37(3): p. 671-673.
108. Posthuma, L., et al., Prospective mixture risk assessment and management prioritizations for river catchments with diverse land uses. *Environmental Toxicology and Chemistry*, 2018. 37(3): p. 715-728.
109. Woods, J.S., et al., Ecosystem quality in LCIA: status quo, harmonization, and suggestions for the way forward. *International Journal of Life Cycle Assessment*, 2018. 23(10).
110. Backhaus, T., et al., Assessing the ecological impact of chemical pollution on aquatic ecosystems requires the systematic exploration and evaluation of four lines of evidence. *Environmental Sciences Europe*, 2019. 31(1): p. 98.
111. Brack, W., et al., Effect-based methods are key. The European Collaborative Project SOLUTIONS recommends integrating effect-based methods for diagnosis and monitoring of water quality. *Environmental Sciences Europe*, 2019. 31(1): p. 10.
112. Brack, W., et al., Let us empower the WFD to prevent risks of chemical pollution in European rivers and lakes. *Environmental Sciences Europe*, 2019. 31(1): p. 47.
113. Brack, W., et al., Strengthen the European collaborative environmental research to meet European policy goals for achieving a sustainable, non-toxic environment. *Environmental Sciences Europe*, 2019. 31(1): p. 63.
114. Bunke, D., et al., Developments in society and implications for emerging pollutants in the aquatic environment. *Environmental Sciences Europe*, 2019. 31(1).
115. EFSA Scientific Committee, et al., Guidance on harmonised methodologies for human health, animal health and ecological risk assessment of combined exposure to multiple chemicals. . *EFSA Journal* 2019. 17: p. 5634,.
116. Faust, M., et al., Prioritisation of water pollutants: the EU Project SOLUTIONS proposes a methodological framework for the integration of mixture risk assessments into prioritisation procedures under the European Water Framework Directive. *Environmental Sciences Europe*, 2019. 31(1): p. 66.
117. Hoondert, R.P.J., et al., QSAR-based estimation of Species Sensitivity Distribution parameters: an exploratory investigation. *Environmental Toxicology and Chemistry*, 2019. 38(12): p. 2764-2770.
118. Kortenkamp, A., et al., Mixture risks threaten water quality: the European Collaborative Project SOLUTIONS recommends changes to the WFD and better coordination across all pieces of European chemicals legislation to improve protection from exposure of the aquatic environment to multiple pollutants. *Environmental Sciences Europe*, 2019. 31(1): p. 69.
119. Kramer, K.J.M., et al., The RiBaTox web tool: selecting methods to assess and manage the diverse problem of chemical pollution in surface waters. *Environmental Sciences Europe*, 2019. 31(1): p. 68.
120. Munthe, J., et al., Increase coherence, cooperation and cross-compliance of regulations on chemicals and water quality. *Environmental Sciences Europe*, 2019. 31(1): p. 64.
121. Posthuma, L., et al., Improved component-based methods for mixture risk assessment are key to characterize complex chemical pollution in surface waters. *Environmental Sciences Europe*, 2019. 31(1): p. 70.
122. Posthuma, L., et al., Exploring the 'solution space' is key: SOLUTIONS recommends an early-stage assessment of options to protect and restore water quality against chemical pollution. *Environmental Sciences Europe*, 2019. 31(1): p. 73.
123. Posthuma, L., et al., Mixtures of chemicals are important drivers of impacts on ecological status in European surface waters. *Environmental Sciences Europe*, 2019. 31(1): p. 71.
124. Posthuma, L., D. de Zwart, and S.D. Dyer, Chemical mixtures affect freshwater species assemblages: from problems to solutions. *Current Opinion in Environmental Science and Health*, 2019. 11: p. 78-89.
125. Posthuma, L., et al., A holistic approach is key to protect water quality and monitor, assess and manage chemical pollution of European surface waters. *Environmental Sciences Europe*, 2019. 31(1): p. 67.
126. Posthuma, L., et al., Water kwaliteit zonder toxiciteit (Water quality with no toxicity). H2O, 2019.

127. Posthuma, L., et al., Species sensitivity distributions for use in environmental protection, assessment, and management of aquatic ecosystems for 12 386 chemicals. *Environmental Toxicology and Chemistry*, 2019. 38(4): p. 905-917.
128. Van Gils, J., et al., The European Collaborative Project SOLUTIONS developed models to provide diagnostic and prognostic capacity and fill data gaps for chemicals of emerging concern. *Environmental Sciences Europe*, 2019. 31(1): p. 72.
129. Zillien, C., et al., Risk-management tool for environmental prioritization of pharmaceuticals based on emissions from hospitals. *Science of the Total Environment*, 2019. 694.
130. Jos van Gils, J., et al., Europe-wide assessment of ecological risks of mixtures of emerging pollutants by spatio-temporally resolved integrated emission, fate, hydrological and impact modelling. *Water Research*, 2019 (submitted 22-7-2019 Water Science).
131. Birk, S., et al., Impacts of multiple stressors on freshwater biota across spatial scales and ecosystems. *Nature Ecology and Evolution*. <https://doi.org/10.1038/s41559-020-1216-4>
132. Drakvik, E., et al., Statement on advancing the assessment of chemical mixtures and their risks for human health and the environment. *Environment International*, 2020. 134: p. 105267.
133. Dulio, V., et al., The NORMAN Association and the European Partnership for Chemicals Risk Assessment (PARC): let's cooperate! *Environmental Sciences Europe*, 2020. 32(1): p. 100.
134. Hoondert, R.P.J., et al., Reply to "Concerns About Reproducibility, Use of the Akaike Information Criterion, and Related Issues in Hoondert et al. 2019" and Focus in Developing QSAR-Based Species Sensitivity Distributions. *Environmental Toxicology and Chemistry*, 2020. 39(7): p. 1302-1304.
135. Lemm, J. U., M. Venohr, L. Globevnik, K. Stefanidis, Y. Panagopoulos, J. van Gils, L. Posthuma, P. Kristensen, C. K. Feld, J. Mahnkopf, D. Hering and S. Birk (2020). "Multiple stressors determine river ecological status at the European scale: Towards an integrated understanding of river status deterioration." *Glob Chang Biol*. <https://doi.org/10.1111/gcb.15504>
135. Post, P.M., et al., Effects of Dutch livestock production on human health and the environment. *Science of the Total Environment*, 2020. 737: p. 139702. <https://doi.org/10.1016/j.scitotenv.2020.139702>
136. Posthuma, L., M. C. Zijp, D. De Zwart, D. Van de Meent, L. Globevnik, M. Koprivsek, A. Focks, J. Van Gils and S. Birk (2020). "Chemical pollution imposes limitations to the ecological status of European surface waters." *Scientific Reports* 10(1): 14825. <https://doi.org/10.1038/s41598-020-71537-2>
137. Van de Meent, D., D. de Zwart and L. Posthuma (2020). "Screening-Level Estimates of Environmental Release Rates, Predicted Exposures, and Toxic Pressures of Currently Used Chemicals." *Environmental Toxicology and Chemistry* 39(9): 1839-1851. <https://doi.org/10.1002/etc.4801>
137. van Gils, J., et al., Computational material flow analysis for thousands of chemicals of emerging concern in European waters. *Journal of Hazardous Materials*, 2020. 397: p. 122655. <https://doi.org/10.1016/j.jhazmat.2020.122655>
138. Wang, J., L. S. Lautz, T. M. Nolte, L. Posthuma, K. R. Koopman, R. S. E. W. Leuven and A. J. Hendriks (2021). "Towards a systematic method for assessing the impact of chemical pollution on ecosystem services of water systems." *Journal of Environmental Management* 281: 111873. <https://doi.org/10.1016/j.jenvman.2020.111873>
139. Rorije, E., P. H. N. Pim N.H. Wassenaar, J. Jaap Slootweg, L. Van Leeuwen, F. A. Van Broekhuizen and L. Posthuma (subm.). "Characterization of risks from unintentional mixture exposures calculated from European freshwater monitoring data: forwarding prospective chemical risk management."
140. Oste, L., W. Verweij, S. Van den Berg, P. J. Van den Brink, T. Pronk, M. L. De Baat, L. Posthuma and I. Van Driezum (subm.). "Het vaststellen van toxische druk als basis voor identificatie van bronnen en het nemen van maatregelen."
141. Mielke, K. P., A. M. Schipper, T. Heskes, M. C. Zijp, L. Posthuma, M. A. J. Huijbregts and T. Claassen (subm.). "Discovering ecological relationships in flowing freshwater ecosystems."

Reports

1. Notenboom, J. and L. Posthuma, Validatie toxiciteitsgegevens en risicogrenzen bodem: voortgangsrapportage 1993. 1994: Bilthoven, The Netherlands.
2. Posthuma, L., et al., Heavy metal toxicity in *Eisenia andrei* exposed in soils from a gradient around a zinc smelter (Budel), and comparison with toxic effects in OECD-artificial soil. 1994, RIVM: Bilthoven, The Netherlands.
3. Notenboom, J. and L. Posthuma, Validatie toxiciteitsgegevens en risicogrenzen bodem: voortgangsrapportage 1994. 1995: Bilthoven, The Netherlands.

4. Posthuma, L., An inventory on delayed effects of toxicants in biological systems. 1995, RIVM: Bilthoven, the Netherlands.
5. Posthuma, L., et al., Methods for the extrapolation of laboratory toxicity data to target species relevant for nature management policy (In Dutch: Methoden voor de extrapolatie van toxiciteitsgegevens uit laboratorium-studies naar doel- of aandachtsoorten). 1995, RIVM, Bilthoven the Netherlands.
6. Posthuma, L. and J. Notenboom, Effects of heavy metals in the oligochaetes *Eisenia andrei* and *Enchytraeus crypticus* in OECD-artificial soil and in soil from a field site polluted by zinc smelter activities, in Progress Report 1994 on the Project "Validation Toxicity Data and Risk Levels of Soil Contamination". 1995. p. 24-36.
7. Posthuma, L., L. Weltje, and J. Notenboom, Mixtures of toxicants and their effects on soil animals, in RIVM Annual Scientific Report 1994. 1995. p. 137-138.
8. Verboom, J., et al., Milieuverkenningen en fauna; op weg naar multiple-stress modellen. 1995, IBN-DLO [etc.]: Wageningen.
9. Weltje, L., et al., Toxische effecten van combinaties van cadmium, zink en koper op terrestrische oligochaeten in relatie tot bodem-chemische interacties. 1995, RIVM, Bilthoven, the Netherlands.
10. Janssen, R.P.T., et al., Equilibrium partitioning of heavy metals in Dutch soils: prediction of metal accumulation in earthworms. 1996: Bilthoven, The Netherlands.
11. Posthuma, L. and J. Notenboom, Toxic effects of heavy metals in three worm species exposed in artificially contaminated soil substrates and contaminated field soils. 1996.
12. Posthuma, L., L. Weltje, and F.A. Antón-Sánchez, Joint toxic effects of cadmium and pyrene on reproduction and growth of the earthworm *Eisenia andrei*. 1996: Bilthoven, The Netherlands.
13. Bakker, J., L. Posthuma, and R. Baerselman, Toxische effecten van zink op de worm *Eisenia andrei*: resultaten van proefveldexperimenten Amsterdam 1995 en 1996. 1997, National Institute for Public Health and the Environment-National Institute for Public Health and the Environment: Bilthoven, the Netherlands.
14. Traas, T.P., et al., Programmeringsstudie voor de ecologische consequenties van normoverschrijding (ECN). 1997: Bilthoven, The Netherlands.
15. Posthuma, L. and R. Baerselman, Field relevance of the *Eisenia andrei* reproduction soil toxicity test, in Validation of Toxicity Data and Risk Limits for Soils: Final Report. 1998. p. 95-110.
16. Posthuma, L., et al., Validation of toxicity data and risk limits for soils: final report. 1998, National Institute for Public Health and the Environment: Bilthoven, The Netherlands.
17. Smit, C.E., et al., Heavy metal behaviour in OECD artificial soil Budel gradient soils and experimental field plot soil-methodological aspects and soil chemical characterisation of contamination, in Validation of Toxicity Data and Risk Limits for Soils: Final Report. 1998. p. 230.
18. Van Gestel, C.A.M., et al., General discussion, in Validation of Toxicity Data and Risk Limits for Soils: Final Report. 1998.
19. Dirven-Van Breemen, E.M. and L. Posthuma, Joint effects of cadmium and zinc on survival and body weight of the springtail *Orchesella cincta* (L.). 1999, National Institute for Public Health and the Environment - National Institute for Public Health and the Environment: Bilthoven, The Netherlands.
20. Posthuma, L., et al., Beoordeling van de ecotoxicologische risico's van de verspreiding van baggerspecie op land. Pilot-toetsing van de invloed van bodemeigenschappen op biobeschikbaarheid van metalen en PAKs in veldbodems, in Determinating ecotoxicological risks of spreading dredged sediments on land. Pilot-assessment of the influence of soil characteristics on the bioavailability of metals and PAHs in field soils. 1999, Rijksinstituut voor Volksgezondheid en Milieu RIVM and STOWA: Bilthoven, the Netherlands.
21. Van Dijk, S., et al., Vergelijking van de voorspelde metaalgehalten in standaardbodems met (eco)toxicologische risiconiveaus. 1999, National Institute for Public Health and the Environment-National Institute for Public Health and the Environment: Bilthoven, The Netherlands.
22. Peijnenburg, W., et al., Ecotoxicologische risico's van de verspreiding van baggerspecie uit regionale wateren op land: Vervolgonderzoek naar de ecologische betekenis van normoverschrijding, in Ecotoxicological risks related to the spreading of sediments from regional waters on soils: additional research on the ecological significance of exceedance of quality standards. 2000, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
23. Peijnenburg, W., et al., Ecotoxicologische risico's van de verspreiding van baggerspecie uit regionale wateren op land: Vervolgonderzoek naar de ecologische betekenis van normoverschrijding. 2001.

24. Peijnenburg, W.J.G.M., et al., Huidige mogelijkheden en inzichten voor implementatie van metaalbiobeschikbaarheid in de risicobeoordeling van landbodems. 2001, National Institute for Public Health and the Environment: RIVM, Bilthoven.
25. Rutgers, M., et al., Ecologische risicobeoordeling van verontreinigde (water)bodem - voorstellen ter verbetering van de urgentiesystematiek, in Ecological risk assessment of contaminated soil and sediment - proposals for improvement of the Dutch urgency system. 2001, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
26. Dirven, E.M., et al., Pilot studie naar toetsing van ecologische relevantie van soorten voor normstelling. 2002, National Institute for Public Health and the Environment: Bilthoven.
27. Mesman, M. and L. Posthuma, Ecotoxicity of toxicant mixtures in soils. Recommendations for application in the Dutch regulatory context, as derived from a scientific review on approaches, models and data. 2003, National Institute for Public Health and the Environment: Bilthoven, The Netherlands. p. 70.
28. Posthuma, L., C. Cuypers, and J. Harmsen, Bagger en Bodem - samenvatting van onderzoek tot 19 november 2003 t.b.v. kernteam Bagger en Bodem en StuWaBo. 2003, National Institute for Public Health and the Environment, RIZA, Alterra: Bilthoven.
29. Posthuma, L., et al., Bagger en Bodem. Onderbouwend onderzoek voor de wijziging van concentratie- naar risicogestuurd baggerbeleid, in LER-notices, RIVM-Laboratory for Ecological Risk Assessment, Editor. 2004, National Institute for Public Health and the Environment: Bilthoven, The Netherlands.
30. Posthuma, L., et al., Bagger en Bodem - onderbouwend onderzoek voor de wijziging van concentratie- naar risicogestuurd baggerbeleid. Deel I. Motieven voor- en inpassing van risicogestuurd verspreidingsbeleid (concept voor intern gebruik opdrachtgever). 2004, National Institute for Public Health and the Environment/RIZA/Alterra: Bilthoven.
31. Posthuma, L., et al., Inhoudelijk en financieel projectplan 2004, Bagger en Bodem (2004). Versie "extern" 15 april 2004. 2004, National Institute for Public Health and the Environment: Bilthoven, The Netherlands.
32. Posthuma, L., MENGSELS. Een notitie over mengsels t.b.v. NOBO, dd. 11 maart 2005 verzonden aan NOBO. 2005, National Institute for Public Health and the Environment: Bilthoven.
33. Posthuma, L., OVER (BIO)BESCHIKBAARHEID. Notitie t.b.v. NOBO, verzonden 11 maart 2005 aan NOBO. 2005, National Institute for Public Health and the Environment: Bilthoven.
34. Posthuma, L., et al., Briefrapport Onderzoek voor Bagger en Bodem. Selectie van resultaten tot 15 maart 2005 met IRA-sed.v1. 2005, National Institute for Public Health and the Environment: Bilthoven.
35. Posthuma, L., et al., Ecotoxicological models for Dutch environmental policy. 2005, National Institute for Public Health and the Environment: Bilthoven, The Netherlands.
36. Swartjes, F., L. Posthuma, and M. Rutgers, Ecotoxicological Risk Assessment: The European Way. . 2005, Report of the NICOLE Workshop State of the Art of (Ecological) Risk Assessment, 15-16-17 June 2005, Stockholm. p. 14-16.
37. van Vlaardingen, P.L.A., R. Posthumus, and C.J.A.M. Posthuma-Doodeman, Environmental risk limits for nine trace elements, in Environmental Risk Limits for Nine Trace Elements. 2005.
38. van Vlaardingen, P.L.A., R. Posthumus, and J.A.M. Posthuma-Doodeman, RIVM report 601501029/2005, in Environmental Risk Limits for Nine Trace Elements. 2005.
39. Noort, P., et al., Beslissen over bagger op bodem. Deel 2. Onderbouwing stofgedragmodellering en voorspelde landbodemconcentraties na verspreiding bagger op land. 2006.
40. Otte, P.F., et al., De onderbouwing van Lokale Maximale Waarden met de Risicotoolbox Bodem. De eerste set verkennende case studies met verontreinigde bodemzones. 2006, Projectgroepen Risicotoolbox en Lokale Bodemambities, briefrapport.
41. Posthuma, L., et al., Beslissen over bagger op bodem. Deel 1. Systeembenadering, model en praktijkvoorbeelden. 2006, National Institute for Public Health and the Environment: Bilthoven, the Netherlands.
42. Posthuma, L., et al., Cross-validation of two methods for eco-epidemiological analysis of monitoring data that show magnitudes of impacts and their probable causes (Poster Abstract), in SETAC-US. 2006, SETAC-Press: Montreal.
43. Posthuma, L., et al., Beslissen over bagger op bodem. Deel 3. Modellering van risico's na verspreiding bagger. 2006, National Institute for Public Health and the Environment: Bilthoven, the Netherlands.
44. Rutgers, M., et al., Ecological effects of soil contamination. Cost benefit analysis of soil remediation. 2006, RIVM: Bilthoven, The Netherlands.
45. Rutgers, M., et al., Ecologische effecten van bodemverontreiniging. Maatschappelijke kosten en batenganalyse bodemsanering, in Ecological effects of soil contamination. Cost benefit analysis of soil remediation. 2006, Rijksinstituut voor Volksgezondheid en Milieu RIVM.

46. De Zwart, D., et al., New diagnostic and predictive modelling tools for an advanced and integrated evaluation of chemical, ecological, and ecotoxicological monitoring data. In: "European Rivers at Risk", ModelKey workshop report. . 2007, UFZ: Leipzig. p. 145-152.
47. Mulder, C., D. De Zwart, and L. Posthuma, Toxic effects, multiple stress and butterfly abundance trends in a nature area in the Netherlands. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 133-138.
48. Mulder, C., et al., Analysis of compiled microbial functional traits. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 123-126.
49. Posthuma, L. and H. Eijsackers, System-oriented Ecotoxicological Research: background information. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 31-34.
50. Posthuma, L., C. Mulder, and D. De Zwart, Analysing data from monitoring networks: the role of toxic compounds and other stressors in shaping natural assemblages of fish species. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 139-144.
51. Posthuma, L., et al., Naar een Grondwatermodule voor de RisicotoolboxBodem.nl. Discussienotitie over inhoudelijke aspecten en implementatieplanning. 2007, RIVM.
52. Posthuma, L. and M.G. Vijver, Exposure and effects of toxic mixtures at field-relevant concentrations. Model validation and integration of SSEO programme. 2007, RIVM: Bilthoven, The Netherlands.
53. Posthuma, L., M.G. Vijver, and H.J.P. Eijsackers, Conclusions from integrating SSEO. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 185-190.
54. Posthuma, L., et al., Dissemination and regulatory issues. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 173-184.
55. Posthuma, L., et al., Validation of operational ecotoxicological models. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 161-172.
56. Posthuma, L., M.G. Vijver, and F. Kuenen, Integrating scientific findings of the SSEO programme. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 2007, RIVM: Bilthoven, the Netherlands. p. 149-160.
57. Posthuma, L., M.G. Vijver, and F. Kuenen, General introduction. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 27-29.
58. Posthuma, L., M.G. Vijver, and F. Kuenen, Validation of ecotoxicological models. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 49-56.
59. Posthuma, L., M.G. Vijver, and F. Kuenen, Characteristics of the compiled data sets. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 147-148.
60. Rutgers, M., et al., Pollution-Induced Community Tolerance as an ecotoxicological model to demonstrate effects? In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 119-122.
61. Van Dijk, S., et al., FEAT: The Flash Environmental Assessment Tool of use in the first hours to days following natural disasters. FEAT training november 2007. 2007, VROM: Den Haag.

62. Vijver, M.G., et al., Natural background and anthropogenic enrichment. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 59-60.
63. Vijver, M.G., et al., Chemical availability for uptake. In: Exposure and Ecological Effects of Toxic Mixtures at Field-Relevant Concentrations: Model Validation and Integration of the SSEO Programme, in RIVM Report 860706002 L. Posthuma and M.G. Vijver, Editors. 2007, RIVM: Bilthoven, the Netherlands. p. 61-64.
64. Wezenbeek, J., et al., Ken uw (water)bodemkwaliteit, de risico's inzichtelijk. 2007, Grontmij: Bilthoven, the Netherlands.
65. Wintersen, A., et al., Naar een BioBase. Database voor (kosten) effectief inzetten van bioassays en ecologische waarnemingen bij saneringsgevallen. 2007.
66. Wintersen, A. and L. Posthuma, Voortgangsrapportage ontwikkeling en beheer risicotoolboxBodem.nl. 2007, RIVM: Bilthoven.
67. De Nijs, A.C.M., et al., Het webportaal: www.risicotoolboxBodem.nl. Modelbeschrijving. 2008, RIVM: Bilthoven, the Netherlands.
68. De Zwart, D. and L. Posthuma, Application of developed models to a limited number of well-documented case studies for validation purposes. 2008, RIVM / UFZ: Bilthoven / Leipzig.
69. De Zwart, D., L. Posthuma, and E. Pemberton, Understanding ecological impacts in rivers in England and Wales and identifying their possible causes. Part 1 - the Effect and Probable Cause (EPC) method. 2008, Environment Agency.
70. Henning-de Jong, I., et al., Report on the impact of an additional ecotoxicity test when deriving environmental quality standards, in D. 4.1. 2008.
71. Huijbregts, M.A.J., et al., Toxicity, in In: ReCiPe 2008, A life cycle impact assessment method which comprises harmonised category indicators at the midpoint and the endpoint level. First edition. Report I: Characterisation. 2008: The Hague, The Netherlands.
72. Osté, L.A., et al., Nieuwe normen waterbodems. Normen voor verspreiden en toepassen op bodem onder oppervlaktewater. 2008, RIZA: Lelystad.
73. Posthuma, L., et al., Kijk op de Risicotoolbox Bodem : Beoordelen van de actuele bodemkwaliteit en kiezen van Lokale Maximale Waarden. 2008, RIVM: Bilthoven, the Netherlands.
74. Posthuma, L., A. Wintersen, and S. Lukács, Visie op de Risicotoolbox Bodem. 2008, RIVM.
75. Rutgers, M., et al., Risico's voor het ecosysteem in stap twee van het Saneringscriterium. 2008, RIVM.
76. Rutgers, M., et al., Ecological risks of soil contamination in the second step of the remediation criterion, in Report 711701072. 2008.
77. Van Dijk, S., et al., FEAT - Flash Environmental Assessment Tool to identify acute environmental risks following disasters. The tool, the explanation and a case study. . 2009, RIVM - Dutch National Institute for Public Health and the Environment: Bilthoven, the Netherlands.
78. Lijzen, J., et al., Verkenning doelstelling voor herstel verontreiniging met PFOS. 2011, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
79. Posthuma, L., et al., KRW-maatlat macrofauna voor zoet getijdenwater (R8) nadere analyses. (WFD-metric tidal surface waters reanalyzed) (In Dutch). 2011, National Institute for Public Health and the Environment: Bilthoven.
80. Posthuma, L., et al., Beoordeling risico's gevaarlijke stoffen voor natuurgebieden. Grondslagen en randvoorwaarden. (Risk assessment of hazardous chemicals for nature areas. Principles and conditions.). 2012, RIVM: Bilthoven, the Netherlands.
81. Rutgers, M., et al., Bodembiodiversiteit op de kaart van Noord-Brabant, in Soil biodiversity on the map of the province North Brabant. 2012, Rijksinstituut voor Volksgezondheid en Milieu RIVM, Alterra, Louis Bolk Instituut, WUR Bodemkwaliteit.
82. Verhoeven, J.K., et al., From risk assessment to environmental impact assessment of chemical substances. Methodology development to be used in socio-economic analysis for REACH. 2012, RIVM: Bilthoven, The Netherlands.
83. Vonk, J., et al., Assessment of a GM-crop impact on soil systems using the DNA barcode-based tool for nematode community analysis, in Richtlijn om effecten van GM-gewassen te bepalen met DNA van bodemaaltjes. 2012, Rijksinstituut voor Volksgezondheid en Milieu RIVM, Wageningen University: Bilthoven, the Netherlands.
84. Ehlert, P.A.I., et al., Appraising Fertilisers: Origins of current regulations and standards for contaminants in fertilisers. 2013, Alterra: Wageningen, the Netherlands.

85. Ehlert, P.A.I., et al., Protocol beoordeling stoffen Meststoffenwet. Versie 3.1, in WOt-werkdocument 335. 2013, Commissie Deskundigen Meststoffenwet: Wageningen, the Netherlands.
86. van der Voet, E., et al., Environmental challenges of anthropogenic metals flows and cycles. 2013, United Nations Environment Programme.
87. Belanger, S., et al., Estimating toxicity thresholds for aquatic ecological communities from sensitivity distributions. Editors: Belanger, S.; Craig, P.; Dyer, S.D.; Galay-Burgos, M.; Hamer, M.; Hart, A.; Marshall, S.; Posthuma, L.; Whitehouse, P. . 2014, ECETOC: Brussels, Belgium.
88. Posthuma, L., Sense, simplicity and successes of SSDs in environmental protection, assessment and management, in Estimating toxicity thresholds for aquatic ecological communities from sensitivity distributions, Workshop 11-13 February 2014, Amsterdam, E.a.E. Agency, Editor. 2014, ECETOC and Environment Agency: Brussels, Belgium. p. 5-6.
89. Rydberg, T., et al., Towards a common conceptual framework for chemical footprint bridging Risk Assessment and Life Cycle Assessment: Short review and way forward. 2014, IVL (Swedish Environmental Research Institute): Stockholm, Sweden.
90. Heezen, P.A.M., et al., Feitenrelaas rond de aspecten 'Gezondheid en Veiligheid' van biovergisting. . 2015, RIVM: Bilthoven, the Netherlands.
91. Munthe, J., et al., Conceptual framework as basis for implementation in RiBaTox and the toxicant knowledge base on the basis of specified stakeholder problems and requirements. 2015, SOLUTIONS-project (www.solutions-project.eu): Leipzig, Germany.
92. Posthuma, L., et al., Report describing substance information flows. 2015: Leipzig, Germany (www.solutions-project.eu).
93. Mulder, C. and L. Posthuma, SOLUTIONS Internal Deliverable ID M5.4. Progress report on food web vulnerability in ERA. 2016: Leipzig, Germany (www.solutions-project.eu).
94. Posthuma, L., et al., Ecologische Sleutelfactor Toxiciteit. Deel 2: Kalibratie: toxische druk en ecologische effecten op macrofauna <https://www.stowa.nl/sites/default/files/assets/PUBLICATIES/Publicaties%202016/STOWA%202016-15/STOWA%202016-15B.pdf>. 2016, STOWA: Amersfoort, the Netherlands.
95. Posthuma, L., et al., Water systems analysis with the ecological key factor 'toxicity'. Part 2. Calibration. Toxic pressure and ecological effects on macrofauna in the Netherlands (in Dutch) <https://www.stowa.nl/sites/default/files/assets/PUBLICATIES/Publicaties%202016/STOWA%202016-15/STOWA%202016-15B.pdf>. 2016, STOWA: Amersfoort, the Netherlands.
96. Posthuma, L., et al., Ecologische Sleutelfactor Toxiciteit. Deel 3: Technische handleiding en tips ESF-toxiciteit Chemie tool. 2016, STOWA: Amersfoort, the Netherlands.
97. Posthuma, L., et al., Ecologische Sleutelfactor Toxiciteit. Deel 1: Methode voor het in beeld brengen van de effecten van giftige stoffen in oppervlaktewater. 2016, STOWA: Amersfoort, the Netherlands.
98. Posthuma, L., et al., Water System Analysis with the Ecological Key Factor "Toxicity". Part 1: The approach, its underpinning and its utility. 2016, STOWA: Amersfoort, the Netherlands.
99. Posthuma, L., et al., SOLUTIONS Internal deliverable: ID M5.2 Progress report on multi-species ERA via SSD. 2016, The SOLUTIONS-project (www.solutions-project.eu): Leipzig, Germany.
100. Posthuma, L., et al., Progress report on multi-species ERA via SSD. Reprot 2016, www.solutions_project.eu: Leipzig, Germany.
101. Van Broekhuizen, F.A., L. Posthuma, and T.P. Traas, Addressing combined effects of chemicals in environmental safety assessment under REACH - A thought starter. 2016, RIVM, Dutch National Institute for Public Health and the Environment; RIVM Letter report 2016-0162.
102. Dencica, I., et al., Assessing the assessment tools: comparing the environmental impacts of early-stage and commercial production of lactic acid (SafeBBE report, confidential). 2017.
103. Fantke, P., et al., USEtox® 2.0 Documentation (Version 1.1) UNEP/SETAC scientific consensus model for characterizing human toxicological and ecotoxicological impacts of chemical emissions in life cycle assessment. 2017, © USEtox® International Center (Technical University of Denmark): Lyngby, Denmark.
104. Moritz, S., et al., Developments in society and implications for emerging pollutants in the aquatic environment. 2017, Oeko-Institut Freiburg, Germany.
105. Analisten Netwerk Nationale Veiligheid (adviser Posthuma_ecologie), Margriet Drent (Instituut Clingendael) Redactie, and R. Minke Meijnders (Instituut Clingendael), Horizonscan Nationale Veiligheid 2018. 2018, RIVM 2018.
106. Kortenkamp, A., et al., Common assessment framework for HRA and ERA higher tier assessments including fish and drinking water and multi-species ERA via SSD, population-level ERA via IBM and food web vulnerability ERA.

- SOLUTIONS Deliverable D18.1 https://www.solutions-project.eu/wp-content/uploads/2018/11/D18.1_SOLUTIONS-D18_1-after-peer-review-clean-V2_Kortenkamp_chm_with_annex.pdf. 2018.
107. Van de Meent, D., et al., Screening level estimation of release rates of currently used chemicals to the environment – application to solution-oriented assessment of impacts on aquatic ecosystems, in (submitted as Deliverable D15.1 to EC). 2018.
 108. Van Gils, J., et al., SOLUTIONS D14.2 Europe wide modelling and simulations of emerging pollutants risk including think tank scenarios. 2018: Leipzig, Germany.
 109. Van Gils, J., et al., SOLUTIONS Deliverable D14.1. Modelling framework and model-based assessment for substance screening. UFZ, Leipzig, Germany. 2018.
 110. Owsianiak, M., et al., Ecotoxicity. In: Global guidance on environmental life cycle impact assessment indicators – Volume 2, in UNEP-SETAC Life Cycle Initiative. 2019, UN, Geneva, Switzerland. p. pp. 138-172.
 111. Van Gils, J., et al., SOLUTIONS Deliverable D14.1 Modelling framework and model-based assessment for substance screening. UFZ, Leipzig, Germany. 2019.
 112. Verones, F., et al., Cross-cutting issues. In: Global guidance on environmental life cycle impact assessment indicators – Volume 2, in UNEP-SETAC Life Cycle Initiative. 2019, UN, Geneva, Switzerland. p. pp 42-59.
 113. Wang, J., L. S. Lautz, T. M. Nolte, J. Chai, W. De Cooman, J. Postma, K. R. Koopman, L. Posthuma, J. P. M. Vink, R. S. E. W. Leuven, A. J. M. Ragas, R. Vvan Zelm and A. J. Hendriks (2020). A comparison of chemical, toxicological and ecological monitoring data and modelling tools for the assessment of sediment pollution (Dutch version: Een vergelijking van chemische, toxicologische en ecologische monitoringsgegevens en modelleringsinstrumenten voor de beoordeling van sedimentverontreiniging). Nijmegen, the Netherlands, Radboud University.
 114. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Toxiciteit van Nederlandse oppervlaktewateren in de periode 2013-2018. Amersfoort, the Netherlands, STOWA-rapport 2021-43.
 115. Posthuma, L. and J. Brand (2021). Nieuw zicht op toxische druk in Nederlands oppervlaktewater. Nature Today: <https://www.naturetoday.com/intl/nl/nature-reports/message/?msg=28378>.
 116. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Toxische druk in Nederlandse oppervlaktewateren (2013-2018). Nature Today: <https://bit.ly/3rbrMxD>.
 117. Leopold, A., A. Bloor, H. Sanderson, B. Campos, K. Groh, P. Thomas and L. Posthuma (2021). "How SETAC Europe Is Contributing to the Chemicals Strategy for Sustainability". SETAC Globe. 22 (9). <https://globe.setac.org/how-setac-europe-is-contributing-to-the-chemicals-strategy-for-sustainability/>.
 118. Weyers, A., B. Escher, M. Junghans, T. Backhaus and L. Posthuma (2021). "Field evaluation of real-world mixtures and regulatory approaches to real-world mixtures." SETAC-Globe 22(7): <https://globe.setac.org/mixtox-i-ii/>

Electronische publicaties

1. Van Wezel, A. P. and L. Posthuma (2021). Podcast: "Hoe meten we de giftigheid van water?". Nature Today: <https://spoti.fi/3FOUYyB>.
2. Van Driezum, I., Posthuma, L. and Van der Wal, B. "Chemical pollutants matter!" (Toxische stoffen doen er toe!). Kennisfestival "Do facts matter", STOWA, February 4, 2021. <https://www.youtube.com/watch?v=4iLb7P12cpE>
3. Postma, J., Slootweg, J., Posthuma, L. and Van der Wal, B. (2021) "The toxic condition of aquatic systems of the Netherlands" (De toxische toestand van Nat Nederland). <https://www.youtube.com/watch?v=zuM6h8YTrOQ>
4. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Atlas Natuurlijk Kapitaal – map of the mixture toxic pressure of all measured chemicals (2013-2018) ([Map all chemicals, \(2013-2018\)](#)).
5. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Atlas Natuurlijk Kapitaal – map of the mixture toxic pressure of metal mixtures (2013-2018) ([Metal mixtures 2013-2018](#))
6. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Atlas Natuurlijk Kapitaal – map of the mixture toxic pressure of pesticide mixtures (2013-2018) ([map of pesticide mixtures, 2013-2018](#))
7. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Atlas Natuurlijk Kapitaal – map of the mixture toxic pressure of PAH mixtures (2013-2018) ([Map of PAH mixtures, 2013-2018](#))
8. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Atlas Natuurlijk Kapitaal – map of the toxic pressure of NHx (2013-2018) ([map of NHx, 2013-2018](#))

9. Postma, J., R. Keijzers, J. Slootweg and L. Posthuma (2021). Atlas Natuurlijk Kapitaal – map of the mixture toxic pressure of other organic chemicals (2013-2018) ([map of other organic contaminants, 2013-2018](#))

Book and book sections

1. Van Wensem, J. and L. Posthuma, Resistentie tegen metaalbelasting bij ongewervelde dieren. , in Leerboek Oecotoxicologie. , V.S. N.M. and V. J.A.C., Editors. 1991, VU Uitgeverij: Amsterdam, the Netherlands. p. 225-234.
2. Posthuma, L., H. Boonman, and R. Baerselman, Effecten van zware metalen op de worm *Eisenia andrei* in OECD-kunstgrond en Budelgrond, in Validatie toxiciteitsgegevens en risicogrenzen bodem: voortgangsrapportage 1993, J. Notenboom and L. Posthuma, Editors. 1994, National Institute for Public Health and the Environment: Bilthoven. p. 20-31.
3. Posthuma, L., Effects of toxicants on population and community parameters in field conditions, and their potential use in the validation of risk assessment methods, in Ecological risk assessment of contaminants in soil, N.M. Van Straalen and H.E. Løkke, Editors. 1997, Chapman and Hall. p. 85-123.
4. Posthuma, L., et al., Soil acidity as major determinant of zinc partitioning and zinc uptake in two oligochaete worms (*Eisenia andrei* and *Enchytraeus crypticus*) exposed in contaminated field soils., in Progress in earthworm ecotoxicology., S.C. Sheppard, et al., Editors. 1998, SETAC Press: Pensacola, FL, USA. p. 111-127.
5. Sheppard, S., et al., Advances in Earthworm Ecotoxicology. 1998: Pensacola, FL: Society of Environmental Toxicology and Chemistry (SETAC).
6. Posthuma, L., et al., Forecasting effects of toxicants at the community level. Four case studies comparing observed community effects of zinc with forecasts from a generic ecotoxicological risk assessment method., in Forecasting the environmental fate and effects of chemicals., P.S. Rainbow, S.P. Hopkin, and M. Crane, Editors. 2001, John Wiley: Chichester, UK. p. 151-175.
7. Hamers, T.H.M., T.P. Traas, and L. Posthuma, The Interactive Poster Session 'Use of Species Sensitivity Distributions in Ecotoxicology', in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W.I. Suter, and T.P. Traas, Editors. 2002, Lewis Publishers: Boca Raton, FL, U.S.A. p. 511-524.
8. Huijbregts, M., et al., Ecotoxicological impacts in life cycle assessment, in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W. Suter, II, and T.P. Traas, Editors. 2002, Lewis Publishers: Boca Raton, FL, U.S.A. p. 421-436.
9. Leeuwen, C.J., J. Jaworska, and L. Posthuma, Effects assessment of fabric softeners: the DHTDMAC case, in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W. Suter, II, and T.P. Traas, Editors. 2002, Lewis Publishers: Boca Raton, FL, U.S.A.
10. Posthuma, L., G.W.I. Suter, and T.P. Traas, Species sensitivity distributions in ecotoxicology. Lewis Publishers. 2002, Boca Raton, FL, U.S.A.: CRC-Press. 616.
11. Posthuma, L., et al., Conceptual and technical outlook on species sensitivity distributions, in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W.I. Suter, and T.P. Traas, Editors. 2002, CRC Press: Boca Raton, FL, U.S.A. p. 475-510.
12. Posthuma, L., T.P. Traas, and G.W. Suter, II, General introduction to species sensitivity distributions, in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W.I. Suter, and T.P. Traas, Editors. 2002, CRC Press: Boca Raton, FL, U.S.A. p. 3-10.
13. Sijm, D., et al., Environmental risk assessments in the Netherlands, in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W. Suter, II, and T.P. Traas, Editors. 2002, Lewis Publishers: Boca Raton, FL, U.S.A.
14. Suter, G.W., T.P. Traas, and L. Posthuma, Issues and practices in the derivation and use of Species Sensitivity Distributions, in Species Sensitivity Distributions in Ecotoxicology, L. Posthuma, G.W. Suter, and T.P. Traas, Editors. 2002, CRC Press: Boca Raton, FL, U.S.A. p. 437-474.
15. Traas, T.P., et al., The Potentially Affected Fraction as a measure of ecological risk., in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W.I. Suter, and T.P. Traas, Editors. 2002, CRC Press: Boca Raton, FL, U.S.A. p. 315-344.
16. Van den Brink, P.J., T.C.M. Brock, and L. Posthuma, The value of the species sensitivity distribution concept for predicting field effects: (Non-)confirmation of the concept using semi-field experiments, in Species sensitivity distributions in ecotoxicology, L. Posthuma, G.W.I. Suter, and T.P. Traas, Editors. 2002, CRC Press: Boca Raton, FL, USA. p. 155-198.

17. Jager, D.T., et al., Toxicokinetics of polycyclic aromatic hydrocarbons in *Eisenia andrei* (Oligochaeta) using spiked soil, in *Worming your way into bioavailability*, D.T. Jager, Editor. 2003: Utrecht, the Netherlands. p. 79-94.
18. Solomon, K., et al., Extrapolation practice for ecological effect characterization of chemicals (EXPECT). 2005.
19. Posthuma, L., et al., Guidance on the application of extrapolation methods in ecological exposure and effects characterization of chemicals., in *Extrapolation practice for ecotoxicological effect characterization of chemicals*, K.R. Solomon, et al., Editors. 2008, CRC-Press: Boca Raton, FL, USA. p. 281-322.
20. Posthuma, L., et al., Mixture extrapolation approaches, in *Extrapolation practice for ecotoxicological effect characterization of chemicals*, K.R. Solomon, et al., Editors. 2008, CRC-Press: Boca Raton, FL, USA. p. 135-186.
21. Solomon, K.R., et al., Extrapolation for criteria setting and risk assessment, in *Extrapolation practice for ecotoxicological effect characterization of chemicals*, K.R. Solomon, et al., Editors. 2008, CRC-Press: Boca Raton, FL, USA.
22. Solomon, K.R., et al., Introduction, in *Extrapolation practice for ecotoxicological effect characterization of chemicals*, K.R. Solomon, et al., Editors. 2008, CRC-Press: Boca Raton, FL, USA. p. 1-33.
23. Solomon, K.R., et al., eds. *Extrapolation practice for ecotoxicological effect characterization of chemicals*. 2008, CRC-Press: Boca Raton, FL, USA.
24. Solomon, K.R., et al., Conclusions, in *Extrapolation practice for ecotoxicological effect characterization of chemicals*, K.R. Solomon, et al., Editors. 2008, CRC-Press: Boca Raton, FL, USA. p. 223-256.
25. Posthuma, L. and G.W.I. Suter, Ecological risk assessment of diffuse and local soil contamination using Species Sensitivity Distributions, in *Dealing with contaminated sites. From theory towards practical application.*, S. F.A., Editor. 2011, Springer Science+Business Media. p. 625-691.
26. Ragas, A.M.J., et al., Human and ecological risk assessment of chemical mixtures, in *Mixture Toxicity: Linking approaches from Ecological and Human Toxicology*, C.A.M. Van Gestel, et al., Editors. 2011, CRC-Press: New York. p. 157-215.
27. Mol, G., L. Posthuma, and J. Spijker, Ecotoxicologische risico's van metalen in de bodem, in *Geochemische bodematlas van Nederland*. 2012. p. 39-46.
28. Salminen, R., et al., Metals in the environment., in Chapter 2. In: *UNEP (2013) Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles, A Report of the Working Group on the Global Metal Flows to the International Resource Panel*. van der Voet, E.; Salminen, R.; Eckelman, M.; Mudd, G.; Norgate, T.; Hirschier, R. 2013.
29. Van der Voet, E., et al., Introduction, in *UNEP (2013) Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles, A Report of the Working Group on the Global Metal Flows to the International Resource Panel*. van der Voet, E.; Salminen, R.; Eckelman, M.; Mudd, G.; Norgate, T.; Hirschier, R. 2013.
30. Van der Voet, E., et al., Conclusions and Recommendations, in Chapter 7. In: *UNEP (2013) Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles, A Report of the Working Group on the Global Metal Flows to the International Resource Panel*. van der Voet, E.; Salminen, R.; Eckelman, M.; Mudd, G.; Norgate, T.; Hirschier, R. 2013.
31. Posthuma, L. and D. De Zwart, Species Sensitivity Distributions, in *Encyclopedia of Toxicology*, 3rd edition. 2014, Elsevier Inc., Academic Press. p. 363–368.
32. Von der Ohe, P.C., et al., Monitoring Programmes, Multiple Stress Analysis and Decision Support for River Basin Management, in *Risk-Informed Management of European River Basins*, J. Brils, et al., Editors. 2014, Springer Berlin Heidelberg. p. 151-182.
33. Posthuma, L. and D. De Zwart, Species Sensitivity Distributions., in *Environmental toxicology, an open online textbook* (<https://www.merlot.org/merlot/viewMaterial.htm?id=501319930>). 2019.
34. Posthuma, L. and D. De Zwart, Eco-epidemiology, in *Environmental toxicology, an open online textbook* (<https://www.merlot.org/merlot/viewMaterial.htm?id=501319930>). 2019.
35. Walia, A., Menoni, S., Dell'Aringa, M.F., Bakon, M., Rovnak, M., Milenov, K., Dyulgerov, A., Radkov, R., Posthuma, L., Shopov, T, Markov, K., van and C. de Guchte, Altamirano, M.A., Wagenaar, D., (2020). Methodologies for disaster impact assessment. *Science for Disaster Risk Management 2020: acting today, protecting tomorrow*. A. Casajus Valles, Marin Ferrer, M., Poljanšek, K., Clark, I. (eds.). EUR 30183 EN, Publications, Office of the European Union, Luxembourg.

Conference proceedings (selected)

1. Weltje, L. and L. Posthuma. Ecotoxicity of heavy metals applied jointly to terrestrial invertebrates. in *Proceedings: Third European Conference on Ecotoxicology*. 1994.

2. Posthuma, L., L. Weltje, and J. Notenboom. Joint toxicity of metals in terrestrial oligochaete worms. in Abstracts of the 5th SETAC-Europe Congress, Copenhagen. 1995.
3. Peijnenburg, W.J.G.M., R.P.T. Janssen, and L. Posthuma, 'The Role of Porewater in the Exposure of Soil Organisms to Heavy Metals', in Workshop on Critical Limits and Effect Based Approaches for Heavy Metals and Persistent Organic Pollutants. 1997.
4. Peijnenburg, W.J.G.M., et al. Implementation of bioavailability for policy and environmental purposes. 1997. Stuttgart: Fraunhofer IRB Verlag.
5. Pol, J.J., E.M. Breemen, and L. Posthuma, Can a Heavy-metal Adapted Springtail Population Survive without Heavy Metals?, in VII Ann. Meet. of SETAC-Europe. 1997. p. 223.
6. Rutgers, M., et al. Pollution-induced community tolerance in terrestrial microbial communities. in Contaminated soil '98 - Proceedings of the 6th International FZK/TNO Conference on Contaminated Soil. 1998. Edinburgh, UK: Thomas Telford.
7. Van Wijnen, H., et al., Confirmation of the species sensitivity distribution concept, in 11th Annual Meeting of SETAC Europe. 2001.
8. Mesman, M., et al. Site-specific ecological risk assessment: the Triad approach in practice. in Conference proceedings: ConSoil. 8th International FZK/TNO conference on contaminated soil. 2003.
9. Posthuma, L., et al. Species sensitivity distributions in a context of practical application for risk-based decisions. 2003. Ghent, Belgium: FZK/TNO.
10. de Zwart, D., et al., Mixture Toxicity and Habitat Alterations Attributed to Effects on Species Composition of Fish in Ohio Rivers, in AGU Spring Meeting Abstracts. 2005. p. 02.
11. Janssen, R., et al., Agricultural problems related to extensive trace metal contents of soil, in Heavy metals, problems and solutions. 2005. p. 3-18.
12. Posthuma, L., et al. Site-specific ecological risk assessment: tiers, targets and tools. 2005.
13. Posthuma, L., et al. Species sensitivity distributions in a context of practical application for risk-based decisions. . in 8, 276-286. 2003. Ghent, Belgium, FZK/TNO. International FZK/TNO Conference on Contaminated Soil. . 2006.
14. Posthuma, L. and A. Wintersen. De Risicotoolbox: het portal om risico's te beoordelen, te begrijpen en te beheersen. in Nationale Bodem Conferentie 2007. 2007. Nieuwegein.
15. Posthuma, L., et al. Novel, broad applications of Species Sensitivity Distributions ask for novel views on implementation decisions. in SETAC Europe 18th Annual Meeting. 25-29 May 2008. 2008. Warsaw: SETAC.
16. Wintersen, A. and L. Posthuma. The risk toolbox - an instrument to support site-specific management of soil quality and soil use. in ConSoil 2008 - Proceedings of the 10th International UFZ-Deltares/TNO Conference on Soil-Water Systems. 2008.
17. Holmes, C., et al., Development of spatially explicit model inputs for evaluating ecological impacts to streams in Ohio. Lecture, SETAC-US, New Orleans. 2009.
18. Holmes, C.M., et al., Development of spatially explicit model inputs for evaluating ecological impacts to streams in Ohio, in ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY. 2009.
19. Posthuma, L., Practical approaches in ecotoxicological mixture risk assessment in support of urgent policy questions, in Expert workshop on combination effects of chemicals, 28-30 January 2009, A. Kortenkamp and U. Hass, Editors. 2009: Hornbæk, Denmark.
20. Posthuma, L., et al., Seveso Directive (chemical accidents) meets Habitat Directive (nature protection): ecotoxicological risks and ecological vulnerability determine safe distances, in SETAC-Europe 20th Annual Meeting. 2010.
21. Posthuma, L. and S.D. Dyer. Risk communication - the link between risk assessment and action. in SETAC-Globe. 2010. SETAC-Annual Meeting.
22. Posthuma, L. and D. De Zwart, Field exposure-response relationship sprovide insight in SSD-model output (toxic pressure) interpretation. 2011: SETAC - US, Boston.
23. Posthuma, L., et al., Towards assessing chemical pollution impacts on biodiversity under the planetary boundaries approach, in Planet under Pressure, London, March 26-29, 2012. 2012.
24. Zijp, M.C. and L. Posthuma, Towards a boundary or footprint for chemical pollution, in SETAC. 2012: Berlin, May 2012.
25. G., M., J. Spijker, and L. Posthuma Are threshold values for metals in soils effective for protecting the soil ecosystem?, in SEvent7th International Workshop on Chemical Bioavailability in the Terrestrial Environment - 3 Nov 2013 → 6 Nov 2013. 2013.

26. Zijp, M.C., L. Posthuma, and D. Van de Meent, The Chemical Footprint; calculating and communicating the impact of multiple substances, in SETAC-Life Cycle Assessment symposium, Rome, . 2013.
27. Brack, W., et al. Integrated approach for the identification, prioritisation and abatement of emerging pollutants – a SOLUTIONS - oriented approach. in SETAC-Europe Annual meeting. 2014. Basel.
28. Bunke, D., et al. Pollutants of tomorrow and developments in society. in SETAC-Europe Annual Meeting. 2014. Basel.
29. Oldenkamp, R., et al. Devils in the tails - Assessing mixture toxic pressure (msPAF) and chemical footprinting for emerging chemicals. in SETAC-Europe Annual Meeting. 2014. Basel.
30. Patel, A., E.H.W. Heugens, and L. Posthuma. Tiered decision framework for the development of sustainable chemical products and processes - Application to the biobased economy in SETAC-Europe Annual Meeting. 2014. Basel.
31. Posthuma, L., et al. Solution-focused landscape-level eco(toxico)logical assessment and management. in SETAC-Europe Annual Meeting. 2014. Basel.
32. Posthuma, L., M.C. Zijp, and D. Van de Meent. Towards (planetary) boundaries for chemical pollution. in Defining a safe operating space at a business level. 2014. 4th and 5th November 2014 – Holiday Inn Guildford (Surrey, UK).
33. Van de Meent, D., et al. The SimpleBox Solution. Multi-media mass balance model to predict environmental fate and ecotoxic effects of mixtures of chemical substances in EU river catchments. in SETAC-Europe Annual meeting. 2014. Basel.
34. Van de Meent, D., et al. Present and future emerging pollutant mixtures in European rivers predicted by use pattern emission modeling. in SETAC-Europe Annual Meeting. 2014. Basel.
35. Brack, W., et al., SOLUTIONS for present and future emerging pollutants in land and water resources management - a European Collaborative Project, in The 2nd International Conference on Emerging Contaminants (emcon forum 2015), October 4-7, 2015. 2015: Kaohsiung, Taiwan.
36. Burton, G.A., et al., Overview of the Pellston Workshop on "Simplifying environmental mixtures – an aquatic exposure-based approach via exposure scenarios" 2015, SETAC: Salt Lake City, U.S.
37. Leonards, P. and L.e.a. Posthuma, SETAC Barcelona, TU129 Time Integrative Passive sampling combined with Toxicity Profiling (TIPTOP): an effect based strategy for cost-effective chemical water quality assessment.
38. Munthe, J., et al., A conceptual framework for solutions-oriented prioritization and management of chemical pollutants., in SETAC-Europe, Barcelona. 2015: Barcelona, Spain.
39. Posthuma, L., How to balance agricultural production and environmental quality: a holistic perspective., in Plantekongres 2015. 2015: Herning, Denmark.
40. Posthuma, L. Risicocommunicatie: Beladen Bodem - Van Lik op stuk te Lekkerkerk tot de Laan voor de Leefomgeving? in RIVM - Lezingenserie Risicocommunicatie 2014/2015. 2015.
41. Posthuma, L., Emerging approaches for solution-focused pollution impact reduction, in EDA - Emerge. Final meeting of the EDA-Emerge EU project. (EDA: Effect Directed Analysis). 2015, UFZ-Leipzig-Halle (Invited keynote lecture): Leipzig, Germany.
42. Posthuma, L., et al. Novel toxic pressure assessment for data poor substances by means of ecotoxicological concern level estimation SETAC. in SETAC-Europe Conference. 2015. Barcelona, Spain.
43. Posthuma, L., et al., Solution-focused risk and sustainability assessments: an inspiring paradigm made operational., in Third Paris Risk Group meeting, Bilthoven, June 18th and 19th, 2015. 2015.
44. Posthuma, L., et al. Chemical footprints and local boundaries, the pollutants of tomorrow and abatement strategies. in SOLUTIONS-Workshop on Modeling. 2015. London, U.K.
45. Schafer, R. and L. Posthuma, The ecotoxicological ivory tower, or How ecotoxicology could increase its relevance, in SETAC-German Language Branch, 2015. 2015.
46. Van Wezel, A. and L. Posthuma, Developmen of mitigation and abatement options, in Solutins-Dutch Stakeholder workshop. 2015: Delft, the Netherlands.
47. De Zwart, D., et al., Effect modeling with SSD: "All animals are unequal.", in SOLUTIONS Annual General Assembly 2016. 2016.
48. Van de Meent, D., et al., Inverse posteriorization – a solution? Ecotoxicolometric way forward in EU quest for a non-toxic environment., in SOLUTIONS Annual General Assembly 2016. 2016.
49. Zijp, M.C., et al., Communicating risky outcomes: footprints and boundaries. "All ecosystems are unequal" in SOLUTIONS Annual General Assembly 2016. 2016.
50. Post, P.J., et al., Integrated risk assessment of changing animal production systems in the Netherlands, in 2nd Conference on Impact of Environmental Changes on Infectious Diseases. 2017, <http://indico.ictp.it/event/8119/>: Trieste, Italy.

51. Dorne, J.L.C.M., et al., Harmonised risk assessment for human health, animal health and ecological risk assessment of combined exposure to multiple chemicals: A Food and feed Safety Perspective, in Eurotox conference 2018. 2018.
52. Van de Meent, D., et al., SimpleBoxTreat4Reach. Application of the SOLUTIONS modeling train to Chemical Safety Assessment under REACH. . 2018: Paper presented at the ECHA Workshop on EUSES update needs. Brussels, 4-5 June 2018. .
53. Scott D. Dyer¹, L.P., Colin D. Brown³, Dick de Zwart², Jerome Diamond⁴, Christopher M. Holmes¹, Stuart Marshall⁵, and G. Allen Burton Jr⁶, A Prospective Approach for Assessing Chemical Mixtures in River Catchments with Diverse Land Uses, in SETAC-Finalnd abstract. 2019.
54. Zillien, C., et al., Risk-management tool for environmental prioritization of pharmaceuticals based on emissions from hospitals, in Poster 2019. 2019.
55. Posthuma , L., W. Brack, and M. Lamoree, SETAC-Globe; session report SETAC-Dublin. 2020, SETAC-Globe.