

Dr. Guido Reinhardt

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Personal information

- Year of birth: 1959 in Heidelberg, Germany
- Nationality: German
- Language skills:
 - German (mother tongue)
 - English (very good)
 - French (fair)

University education

- Graduation in mathematics and chemistry at the University of Heidelberg
- PhD in Natural Sciences at the University of Heidelberg (1991)
- Scientific assistant at the University of Heidelberg (1986-1991)
- Lecturer and leader of outside-university workshops (since 1986)

Professional Experience

Main working field: Life cycle assessments and sustainable developments of biobased materials, bioenergy and food systems.

- Since 1991: Institute for Energy and Environmental Research (IFEU), Heidelberg, Germany.
- Since 1994: Scientific director and member of the board of directors of the Institute for Energy and Environmental Research (IFEU), Heidelberg, Germany.
- More than 25 years of experience in the acquisition and coordination of large-scale projects (client communication, budgeting, subcontracting, report writing and editing).
- Co-ordinator and project leader, respectively, of numerous national and international projects and co-operations.
- Consultant for national and international institutions like OECD, UNFCCC, FAO, UNEP, UNIDO, European Commission, International Energy Agency, Federal Ministries etc. (see also below: “Membership”).
- Author and co-author, respectively, of a number of books, dozens of final reports and a few hundred publications and expertises related to the issue.

Membership in advisory committees etc. (selection)

- Scientific Advisory Board about energy and industrial crops of the Ministry of Agriculture of Lower Saxony, Germany, since 1995
- Member of the Working Group of the VDI about the VDI directive 4600 “Cumulative Energy Demand: Terms, Definitions, Methods of Calculation”, since 1995
- Scientific Technical Board of FUELS, 2001 - 2016
- Board of Directors of the International Energy Foundation, www.ief-energy.org, 2003 - 2015
- National Expert to International Energy Agency, IEA - Bioenergy, Task 39: Liquid Biofuels, 2004
- Associate editor of *Agronomie: Agriculture and Environment*, 1999 - 2013
- Editorial Board of *Focus Energy Economy*, www.energy.de, 2003 - 2011
- Member of the Working Group on Sustainability of the European Biofuels Technology Platform (EBTP), 2008 ff
- Member of the Working Group on Biomaterials and Bioenergy of the EC-US Taskforce on Biotechnology Research, 2009 ff
- Scientific Committee of several conferences such as *Algae Europe*, *EUBCE* and *Biofuels 2019*
- Evaluator for programs and projects for many stakeholders such as EC, FNR, Postdoc Academy of Robert-Bosch-Stiftung etc.

Invited speaker at expert panels and international conferences (selection)

- 5th Latin American Congress on Biorefineries, Concepcion, Chile, 2019
- 9th Annual Congress and Expo on Biofuels and Bioenergy, Dubai, VAE, 2018
- 13th Intl. Conf. on Renew. Ressources & biorefineries, Wroclaw, Poland, 2017
- Bioeconomy, BBW ForWerts, Annweiler, Germany, 2017
- 3rd EABA Conf. & 10th Intl. algae congress, AlgaEurope, Madrid, Spain 2016
- 3rd Europ. WS on LCA of Algal Biofuels & Biom., Brussels, Belgium 2015
- 8th Intl. Conf. on Renew. Ressources & Biorefineries, Toulouse, France, 2012
- LCM 2011, Life Cycle Management Conf., Berlin, Germany 2011
- ICBF, Intern. Conf. on Biofuel Crop Prod. & Dev., Zamorano, Honduras, 2010
- IPOSC Intern. Palm Oil Sustainability Conf., Kota Kinabalu, Malaysia, 2010
- BioEnergy Markets West Africa, Accra, Ghana, 2009
- XVI Intern. Oil Palm Conference, Cartagena, Colombia, 2009
- Intern. Workshop “Land Use Change and Bioenergy”, Vonore, TN, USA, 2009
- OECD Workshop “Sustainable Biobased Products”, Montreal, Canada, 2009
- Intern. Workshop “Sustainable Value Chains in Africa”, Lusaka, Zambia, 2009
- COMPETE International Workshop, Bamako, Mali, 2008
- Intern. Symp.: Biofuels and food security, Salvador da Bahia, Brazil, 2008
- German-Argentinean Workshop on biofuels, Argentina, 2007
- 4th International Biofuels Conference, India, 2007
- 5th European Motor BioFuels Forum, United Kingdom, 2006
- EU - BioEnergy NoE Workshop, France, 2006
- Intern. Conf. on Biodiesel, Seoul, Korea, 2006
- German-Brazilian Workshop on biofuels, Brazil, 2004
- Asian conference about biofuels, Thailand 2004
- IEA-Task 39 on Biofuels, Japan, 2004
- 1st Intern. Conf. on Energy and Environment, Changsha, China, 2003

Publications: > 500. **Selection:** 2018 - 2021 only. For more: see www.ifeu.de

2021

J. Senn, H. Keller, G. Reinhardt, N. Rettenmaier:

Environmental assessment of biocommodities from biomass pyrolysis. Proceedings of the International conference on Renewable Resources and Biorefineries RRB 2021, September 6-8, 2021, Aveiro, Portugal

S. Haertlé, G. Reinhardt:

Umweltauswirkungen von Milchprodukten und deren pflanzlichen Alternativen. (Environmental impacts of dairy products and vegetarian alternatives). Milchmagazin

G. Reinhardt:

Ökologischer Fußabdruck von Milchsubstituten im Vergleich zu Milchprodukten. (Environmental footprints of dairy substitutes compared to dairy products). 19. Ahlemer Fachtagung als Online-Veranstaltung „Einsatz von pflanzlichen Rohstoffen als Milchsubstitute: Überlegungen zur Nachhaltigkeit“ am 1./2. Juni 2021.

M. Speck, L. Wagner, X. Mourabit, M. Scharp, G. Reinhardt and 4 co-authors:

Klima- und energieeffiziente Schulküche: Schulverpflegung klimagesund und kindgerecht gestalten. (Guidelines for climate efficient school catering). Ernährungs Umschau international, 07/2021

N. Rettenmaier, H. Keller, C. Zinke, G. Reinhardt:

Life cycle assessment of electromicrobial production of renewable hydrocarbon fuels. Proceedings of "29nd European Biomass Conference and Exhibition", June 26-29, 2021. www.etaflorence.it/proceedings

H. Keller, N. Rettenmaier, G. Reinhardt:

New method attributional land use and land use change (aLULUC) applied to biofuels. What can it do better than iLUC and dLUC? Proceedings of "29nd European Biomass Conference and Exhibition", June 26-29, 2021. www.etaflorence.it/proceedings

G. Reinhardt:

Der CO₂-Fußabdruck meiner Ernährung: Bestimmung und Tipps zur CO₂-Einsparung. (CO₂ footprint of nutrition diets. Calculation and recommendation to reduce the CO₂ footprint). Tagungsunterlagen der Online-Veranstaltung "Wie mein Essen das Klima beeinflusst" der Akademie Ländlicher Raum Baden-Württemberg bei der Landesanstalt für Landwirtschaft, Ernährung und Ländlichen Raum (LEL), 21. April 2021

G. Reinhardt, C. Grehl:

Übersichts-Treibhausgasbilanz von Äpfeln unterschiedlicher Herkunft. (Screening greenhouse gas balances of apples from different locations). Im Auftrag des Futurium Berlin, Heidelberg 2021

J. Senn, G. Reinhardt:

Basisdaten für die Wanderausstellung "Klimagourmet". (Primary data for the German touring exhibition „Climate gourmet“). Im Auftrag von stiefeldesgin, Heidelberg 2021

G. Reinhardt, S. Gärtner, H. Keller, J. Senn, C. Zinke:

Umweltwirkungen ausgesuchter Lebensmittel für das Deutsche Museum. (Environmental impacts of several food items for the exposition at the German Museum, Munich). Im Auftrag des Deutschen Museums München, Heidelberg 2021

2020

G. Reinhardt:

Flächenfußabdruck von Biokraftstoffen. (Land use footprint of biofuels for transportation). In: NRW-Biokraftstofftagung 2020 - Nachhaltige Kraftstoffe für die Zukunft. 26. Oktober 2020

G. Reinhardt:

Comparison of the indirect land use change (iLUC) risk and the attributional land use & land use change concept (aLULUC) for major oil crops. In: International Palm Oil Sustainability Conference 2020, Virtual IPOSC 2020's Module 2, October, 12-20, 2020 – MPOC, Malaysia

G. Reinhardt, J. Senn:

Environmental footprint results of food products: quo vadis? In: LCA FOOD 2020, 12th International Conference on Life Cycle Assessment of Food, 13th – 16th October 2020, www.virtual.lcafood2020.com

G. Reinhardt, C. Zinke:

First time ever results for footprints of qualified land use and phosphorus towards more conclusive LCAs of food. In: LCA FOOD 2020, 12th International Conference on Life Cycle Assessment of Food, 13th – 16th October 2020, www.virtual.lcafood2020.com

G. Reinhardt:

Sustainability aspects around bio-derived materials in formulation: a LCA perspective. In: Online symposium series: Unlocking the innovation potential of formulated products – Dos, don'ts, tools and current trends, September 15-16, 2020 – RISE, Sweden

G. Reinhardt

Übersichtsökobilanz von Textilien an den Beispielen Hemd, Poloshirt und Bettwäsche. (Screening life cycle assessment of textiles covering shirts, polo shirts and bedclothes). In: Produktpräsentation: Kreislauffähige Berufsbekleidung &

Bettwäsche für Gewerbe, Gesundheitswesen und die öffentliche Hand, 10.9.2020 in Berlin 2020, www.ditex-kreislaufwirtschaft.de

H. Keller, B. Franke, S. Gärtner, G. Reinhardt:

Techno-economic assessment of nanotextured surfaces for membranes, protective textiles, friction pads and abrasive materials. In: Nanotextsurf project reports, supported by the EU's Horizon 2020 programme under GA No. 760601, IFEU - Institute for Energy and Environmental Research Heidelberg, Heidelberg, Germany, 2020

H. Keller, G. Reinhardt, S. Gärtner, M. Hemmen, T. Wagner:

Environmental assessment of nanotextured surfaces for membranes, protective textiles, friction pads and abrasive materials. In: Nanotextsurf project reports, supported by the EU's Horizon 2020 programme under GA No. 760601, IFEU - Institute for Energy and Environmental Research Heidelberg, Heidelberg, Germany, 2020

S. Gärtner, G. Reinhardt, T. Wagner:

CO₂-Fußabdrücke ausgewählter Mensagerichte der Hochschule Trier. (Carbon footprints of selected meals at the canteen of the University of Trier, Germany). Im Auftrag der Hochschule Trier, IFEU-Institut Heidelberg, 2020

G. Reinhardt, S. Gärtner, N. Rettenmaier, C. Zinke:

CO₂-Bilanzierung bei der Ertüchtigung von Hochwasserdämmen. Im Auftrag des Regierungspräsidiums Karlsruhe, Abteilung 5, Referat 53.1. IFEU-Institut Heidelberg, 2020

G. Reinhardt, H. Keller, S. Gärtner, & N. Rettenmaier:

Life cycle greenhouse gas emissions of five major vegetable oils including all co-products and land use aspects. Commissioned by the Malaysian Palm Oil Council (MPOC), ifeu – Institute for Energy and Environmental Research Heidelberg, Heidelberg, Germany, 2020

G. Reinhardt, T. Wagner, H. Keller, S. Gärtner:

Übersichtsökobilanz: Wasserlinsenmehl als Futtermittel in Aquakulturen zur Substitution von Soja. (Ground duckweed as feed for aquaculture to substitute soy). Im Auftrag der Uniper SE. IFEU-Heidelberg 2020

G. Reinhardt, S. Gärtner, T. Wagner:

Ökologische Fußabdrücke von Lebensmitteln und Gerichten in Deutschland. (Environmental footprints of food and meals in Germany). www.ifeu.de/themen/biomasse-und-ernaehrung/. IFEU-Institut Heidelberg, 2020

T. Wagner, S. Gärtner, M. Hemmen, G. Reinhardt:

CO₂-Fußabdrücke ausgewählter Lebensmittel in Europa und Afrika. (Carbon footprint of selected food items in Europe and Africa). Im Auftrag des Heidelberger Instituts für Global Health (HIGH) des Universitätsklinikums Heidelberg. IFEU-Institut Heidelberg, 2020

H. Keller, N. Rettenmaier, G. Reinhardt:

Evaluierung der BTS/BIFA-Studie „Bewertung des Konzepts Kabel-Zero“. Im Auftrag der Kabel-Natur-Stiftung. IFEU-Institut Heidelberg, 2020

2019

T. Wagner, G. Reinhardt, C. Zinke:

Klimagasbilanz verschiedener Burger-Pattys auf der Basis von Fleisch, Erbsen bzw. Insekten (Greenhouse gas balance of several burger patties based on meat, peas and insects). IFEU-Institut, Heidelberg, 2019

G. Reinhardt, S. Gärtner:

Klimagasemissionen von wichtigen Alltagslebensmitteln. In: „Klimaschutz auf dem Teller“, Artikel im Mannheimer Morgen, Ausgabe 26.09.2019

G. Reinhardt, S. Gärtner, T. Wagner:

CO₂- und Wasserfußabdruck von Avocados aus verschiedenen Ländern und von unterschiedlichen Produktionsformen (carbon and water footprints of avocados from conventional and organic farming in different countries). IFEU-Institut, Heidelberg, 2019

Fehrenbach, N. Rettenmaier, G. Reinhardt:

Festlegung des Indikators für die Bilanzierung der Ressource Fläche in Ökobilanzen. Available in German and English: Land use in life cycle assessment: proposal for an indicator and application guidelines. ifeu papers 2/2019, IFEU Institute, Heidelberg, Germany, www.ifeu.de

G. Reinhardt, S. Gärtner:

Latest improvements of biofuel life cycle assessments by introducing footprints of water, land use, and phosphorus. Proceedings of the International conference on biomass conversion and renewable materials 2019, October 12-15, 2019, Guilin, China

G. Reinhardt, N. Rettenmaier, R. Vogt:

Festlegung des Indikators für die Bilanzierung der Ressource Phosphat in Umweltbewertungen. Available in German and English: Phosphate footprint in life cycle assessment: proposal for an indicator and application guidelines. ifeu papers 1/2019, IFEU Institute, Heidelberg, Germany, www.ifeu.de

G. Reinhardt:

Ökologischer Fußabdruck von Schnittblumen. (Environmental footprint of cut flowers). BGI Verbandstag "Allianzen bilden – Herausforderungen gemeinsam meistern", 14. Sept. 2019, Köln, Germany

G. Reinhardt:

Camelina und Crambe: Nachhaltige Alternativen für die Landwirtschaft? (Camelina and Crambe: sustainable crops in sustainable agriculture?). Proceedings of the 27. C.A.R.M.E.N.-Symposium "Energie- & Ressourcenwende: Impulse aus dem ländlichen Raum", 1. und 2. Juli 2019, Straubing 2019

G. Reinhardt, M. Hemmen:

Phosphatfußabdruck und Flächenfußabdruck: zwei notwendige Erweiterungen zu bisherigen Ökobilanzen von Biokraftstoffen: Methodik und Ergebnisse. (Footprint of phosphate rock and land use: two significant extensions to conventional LCAs of biofuels: methodology and results). In: Schriftenreihe Umweltingenieurwesen Band 87, 13. Rostocker Bioenergieforum, 13. und 14. Juni 2019. Rostock, Germany, S. 73-82

R. Eyrich, U. Meurer, T. Wagner, E. Buchheim, G. Reinhardt, S. Gärtner, M. Hemmen, S. Monetti, M. Stübner, S. Koch, T. Hildebrandt, M. Scharp:

KEEKS-Web-App – Klimaschonende Schulküche mit vielen Rezepten. (Climate efficient school catering including many recipes). KEEKS-Material 2019-E, Wuppertal, Heidelberg und Heidelberg, 2019

G. Reinhardt, S. Gärtner, H. Keller:

Significant extension of biofuel LCAs by introducing footprints of phosphorus and land use. Proceedings of the „27th EU Biomass Conference & Exhibition“, May 27-30, 2019, Lisboa, Portugal

G. Reinhardt:

How sustainable are Crambe and Camelina pathways? Talk at the side-event session “Camelina & crambe oil crops as sources for the medium-chain oils for speciality oleochemicals” on the occasion of the „27th EU Biomass Conference & Exhibition“, May 27-30, 2019, Lisboa, Portugal

T. Wagner, M. Scharp, G. Reinhardt:

Maßnahmen für eine klimaschonende Schulküche. (Action catalogue for climate efficient school catering). KEEKS-Broschüre, www.keeks-project.de. Heidelberg and Berlin, 2019

J. Muthny, T. Engelmann, M. Scharp, G. Reinhardt and 11 co-authors:

KEEKS-Leitfaden für die klimaschonende Schulküche. (Guidelines for climate efficient school catering). www.keeks-project.de. Friedberg and Berlin, 2019

G. A. Reinhardt, M. Hemmen:

Algae based biorefineries: boon or bane? Lessons learnt from a decade of research and demonstration units worldwide. Keynote talk. In: Proceedings of the 5th Latin American Congress on Biorefineries, January 7-9, 2019, Concepción, Chile, p19f

2018

M. Scharp, G. Reinhardt und 15 Koautoren:

Das KEEKS-Projekt – Eine klimafreundliche Schulküche. (The KEEKS project: climate change friendly school kitchens). IZT-Text 21-2018. ISBN: 978-3-941374-55-3. 2018

G. Reinhardt:

How to improve the sustainability of palm oil by using wooden products such as furniture or plywood from oil palm trunks. In: Proceedings of the 1st World Conference on By-Products of Palm Trees and their application (ByPalma), Aswan, December 15-17, 2018, Egypt

N. Rettenmaier, H. Keller, M. Schmehl, S. Gärtner, G. Reinhardt:

How environmentally and socio-economically sustainable is biomass for bioenergy from marginal lands? SEEMLA Final event, 20 November 2018, Brussels, Belgium,

H. Keller, N. Rettenmaier, G. Reinhardt:

Sustainable exploitation of biomass for bioenergy from marginal lands in Europe: Final report on socio-economic assessment. In: SEEMLA project reports, supported by the EU's H2020 under GA No. 691874, <http://seemla.eu/en/project-deliverables/>, IFEU - Institute for Energy and Environmental Research Heidelberg, Heidelberg, Germany, 2018

N. Rettenmaier, M. Schmehl, S. Gärtner, G. Reinhardt:

Sustainable exploitation of biomass for bioenergy from marginal lands in Europe: Final report on environmental assessment covering LCA & LC-EIA. In: SEEMLA project reports, supported by the EU's Horizon 2020 programme under GA No. 691874, <http://seemla.eu/en/project-deliverables/>, IFEU - Institute for Energy and Environmental Research Heidelberg, Heidelberg, Germany, 2018

S. Gärtner, M. Schmehl, T. Wagner, N. Rettenmaier, G. Reinhardt:

Sustainable exploitation of biomass for bioenergy from marginal lands in Europe: Final report of definitions and settings for WP 4. In: SEEMLA project reports, supported by the EU's Horizon 2020 programme under GA No. 691874, <http://seemla.eu/en/project-deliverables/>, IFEU - Institute for Energy and Environmental Research Heidelberg, Heidelberg, Germany, 2018.

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