

Dr. Guido Reinhardt

IFEU – Institute for Energy and Environmental
Research Heidelberg

Wilckensstrasse 3
D – 69120 Heidelberg

Phone: +49-6221-4767-0 / -31
Fax: +49-6221-4767-19
E-mail: guido.reinhardt@ifeu.de
Internet: www.ifeu.de



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 as well as renewable energy 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 30 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:** 2020 - 2025 only. For more: see www.ifeu.de

2025

H. Karg, G. Reinhardt, M. Breyer, S. Gärtner:

Recommendations to reduce environmental impacts of the Indonesian textile industry. In: Enatex final project reports, supported by the German national ministry BMFTR, Heidelberg, Germany 2025, www.ifeu.de & www.enatex.com

M. Breyer, S. Gärtner, H. Keller, G. Reinhardt, N. Wallmann:

Environmental assessment of offshore floating photovoltaic systems. In: Surewave final project reports, supported by the European Union's Horizon Europe Research and innovation funding programme under GA No. 101083342., IFEU - Institute for Energy and Environmental Research Heidelberg, Heidelberg, Germany, www.ifeu.de

G. Reinhardt, M. Breyer:

Ungenutzte nachhaltige Biomasse kann enorme Mengen CO₂ einsparen: Eine Synopse am Beispiel der Reststoffe aus der Palmölproduktion. (Today unused sustainable biomass can save big quantities of greenhouse gases: a synopsis exemplifying residues from palm oil production). In: Schriftenreihe Umweltingenieurwesen Band 93, 19. Rostocker Bioenergieforum, 19. und 20. Juni 2019. Rostock, Germany, S. 81-90

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

Renewable electricity for bio-methanol or synthetic methanol? A comparison of efficiencies and prospective environmental impacts. Proceedings of the 33th European Biomass Conference & Exhibition 2025, June 9-12, 2025, Valencia, Spain

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

Electrification as a game changer: efficiencies and prospective environmental impacts of bio-based vs. synthetic methanol Proceedings of the International conference on Renewable Ressources and Biorefineries RRB 2025, June 2-4, 2025, Turku, Finland

G. Reinhardt:

Environmental Life Cycle Assessment applications: Benefits for the Indonesian textile industry. Proceedings of the International Conference of the German-Indonesian Enatex Project, February 11-12, 2025, Jakarta, Indonesia. www.enatex.com

G. Reinhardt:

Methodology of environmental life cycle assessments for applications in the textile sector. Proceedings of the International Conference of the German-Indonesian Enatex Project, February 11-12, 2025, Jakarta, Indonesia. www.enatex.com

2024

M. Breyer, S. Gärtner, G. Reinhardt:

Ökologische Auswirkungen einer Teildeckung des Strombedarfs der indonesischen Textilindustrie durch Strom aus Photovoltaik (Environmental impacts associated with electricity production by photovoltaic for the Indonesian textile sector). Heidelberg, 2024

S. Gärtner, H. Karg, G. Reinhardt:

Ökologische Auswirkungen einer Vortrocknung von Kohle zum Einsatz in der indonesischen Textilindustrie (Environmental impacts associated with processing coal for energy provision in the Indonesian textile sector towards dry conditions). Heidelberg, 2024

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

Life cycle assessment of hemicellulose-based products. Report published within the European Commission funded project "Biorefining of sugars via Process Intensification", GA number 887226, Heidelberg, 2024

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

Integrated sustainability assessment of hemicellulose-based products. Report published within the European Commission funded project "Biorefining of sugars via Process Intensification", GA number 887226, Heidelberg, 2024

M. Breyer, G. Reinhardt:

How to achieve huge greenhouse gas savings by using all by-products of palm oil production at its best. Proceedings of the 32th EU Biomass Conference & Exhibition, June 24-27, 2024, Marseille, France

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

Process Intensification - A Beacon of Hope for Lower Environmental Impacts? Proceedings of the 32th EU Biomass Conference & Exhibition, June 24-27, 2024, Marseille, France

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

Reduced environmental impacts through process-intensified conversion of lignocellulosic biomass? Proceedings of the International conference on Renewable Ressources and Biorefineries RRB 2024, June 5-7, 2024, Brussels, Belgium

G. Reinhardt:

Significant reductions in greenhouse gas emissions by optimized use of by-products from palm oil production: a comprehensive assessment. Proceedings of the International conference on Biomass, IConBM2024, May 19-22, Palermo, Italy

G. Reinhardt:

Maßnahmen zur CO₂-Reduktion bei der Erzeugung von Obst und Gemüse in Deutschland (Measures to reduce greenhouse gases along the production chain of fruit and vegetables in Germany). Vortrag bei der Sitzung der Qualität und Sicherheit Bonn, 11. April 2014, Berlin

2023

G. Reinhardt:

Significant reductions in greenhouse gas emissions by optimized use of by-products from palm oil production: a comprehensive assessment. Proceedings of the 3rd World Conference on Byproducts of Palms and Their Applications. November 5-8, 2023, Riyadh, Saudi Arabia

G. Reinhardt:

Wie nachhaltig ist unsere Ernährung ?

Vom CO₂-Fußabdruck zum ökologischen Fußabdruck. (How sustainable is our nutrition? From the carbon footprint towards the environmental footprints.). Anlässlich des 27. Heidelberger Ernährungsforums "Mehrheiten und Wahrheit. Gewissheit im Ernährungskontext". 22. – 23. September 2023, Heidelberg

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

Bio-based components for marine fuels: Life cycle environmental impacts and biomass potentials. Proceedings of the International conference on Renewable Resources and Biorefineries RRB 2023, June 1-3, 2023, Riga, Litauen

H. Keller, G. Reinhardt:

Pitfalls in the sustainability assessment of bio-based products for a defossilised economy. Proceedings of the International conference on Renewable Resources and Biorefineries RRB 2023, June 1-3, 2023, Riga, Litauen

H. Karg, G. Reinhardt:

Life Cycle Assessment (LCA) applications can improve the textile sector. Midterm conference of the EnaTex- project „Energie und Nachhaltigkeit in der Textilindustrie – Energieeffizienz und Erneuerbare Energien in Partnerschaft für den Klimaschutz“, 27 October 2023, Bandung, Indonesia

C. Grahl, S. Gärtner, G. Reinhardt:

CO₂-Fußabdruck ausgewählter frischer und verarbeiteter Lebensmittel. (Carbon footprint for selected fresh and processed food items). Angefertigt für HelloGreen, Heidelberg, 2023

C. Grahl, S. Gärtner, G. Reinhardt:

CO₂-Fußabdruck der Herstellung und Zubereitung selbstgemachter und tiefgekühlter Pommes frites. (Carbon footprint for the production and cooking of frozen and home made French fries). Angefertigt für Solis TV, Heidelberg, 2023

S. Gärtner, G. Reinhardt:

CO₂-Fußabdruck eines Erbsenprotein-Burgers und eines Beef-Burgers. (Carbon footprint for a meat-based burger compared to a burger based on protein from peas). Angefertigt für Storyhouse, Heidelberg, 2023

2022

H. Karg, G. Reinhardt:

Life Cycle Assessment to Improve the environmental footprints of garment. Symposium as part of the EnaTex project „Energie und Nachhaltigkeit in der Textilindustrie – Energieeffizienz und Erneuerbare Energien in Partnerschaft für den Klimaschutz“, 24 May 2023, Jakarta, Indonesia

G. Reinhardt, N. Rettenmaier:

CO₂-Bilanzierung bei der Ertüchtigung von Hochwasserdämmen. (Carbon footprint of retrofitting river dams). Proceedings of the conference DWA-Hochwassertag, 8. November 2022, Karlsruhe.

J. Senn, S. Gärtner, G. Reinhardt:

Fact sheet: Ökologische Bewertung von nachhaltigen, kreislauffähigen Textilien. (Environmental assessment of sustainable and recyclable textiles: fact sheet). Erstellt im Rahmen des BMBF-Vorhabens „Digitale Technologien als Enabler einer ressourceneffizienten kreislauffähigen B2B-Textilwirtschaft. Heidelberg 2022

S. Gärtner, G. Reinhardt J. Senn:

Ökobilanz von nachhaltiger, kreislauffähiger Bettgarnitur. (Life cycle assessment of sustainable and recyclable bed linen). Erstellt im Rahmen des BMBF-Vorhabens „Digitale Technologien als Enabler einer ressourceneffizienten kreislauffähigen B2B-Textilwirtschaft. Heidelberg 2022

S. Gärtner, J. Senn, G. Reinhardt, C. Grehl:

Ökobilanz eines nachhaltigen, kreislauffähigen Polo-Shirts. (Life cycle assessment of sustainable and recyclable polo shirts). Erstellt im Rahmen des BMBF-Vorhabens „Digitale Technologien als Enabler einer ressourceneffizienten kreislauffähigen B2B-Textilwirtschaft. Heidelberg 2022

S. Gärtner, G. Reinhardt, J. Senn, S. Haertlé:

Ökobilanz eines nachhaltigen, kreislauffähigen Business-Hemds. (Life cycle assessment of sustainable and recyclable business shirts). Erstellt im Rahmen des BMBF-Vorhabens „Digitale Technologien als Enabler einer ressourceneffizienten kreislauffähigen B2B-Textilwirtschaft. Heidelberg 2022

2021

R. Müller, F. Rubik, G. Reinhardt und 16 Koautoren

Zirkuläre Bettwäsche und Berufskleidung für Gesundheitswesen und öffentliche Hand – Anforderungen und Nachhaltig-

keitseffekte. (Circularity for bed linen and workwear in the healthcare and public sector: requirements and their effects on sustainability). Integrativer Forschungsbericht 2021 im BMBF-Vorhaben „Digitale Technologien als Enabler einer ressourceneffizienten kreislauffähigen B2B-Textilwirtschaft“.

G. Reinhardt:

Ökologischer Fußabdruck unserer Ernährung. (Environmental footprint of our nutrition). Online-Seminar der Verbraucherzentrale Bundesverband „Digitalisierung, Klimaveränderung und Ernährung“, <https://www.vzbv.de/>, am 1. Dezember 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

Etc ...

For more: see www.ifeu.de