

## Resume Prof. Dr.-Ing. Werner Lang

Vice President for Sustainable Transformation

**Research areas:** Life-Cycle Assessment + Life Cycle Costing (LCA+LCC), Energy Efficiency in the Construction Industry, Sustainable Planning and Construction, Environmental and Climate Impact, Building Materials and Construction Technology

### Academic and professional career

since 2023	Vice President for Sustainable Transformation at the Technical University of Munich (TUM)
since 2010	Full Professor for Energy-Efficient and Sustainable Design and Construction, TUM
since 2010	Director of the Oskar-von-Miller-Forum, Munich
2010 – 2017	Director of the Center for Sustainable Building, TUM
2008 – 2010	Professor for Sustainable Design at the University of Texas at Austin, School of Architecture, USA
2000	Doctorate on the topic “Typological and experimental investigation of the construction of double-skin facades in tall buildings with particular consideration of their importance for the energy balance and the possibility of using environmental energies”, TUM, Chair for Building Technology, Prof. Dr. (Univ. Roma) Thomas Herzog, Overall grade: <i>summa cum laude</i>
1990	Master of Architecture – M. Arch. II, University of California, Los Angeles (UCLA), USA
1988	Diploma in Architecture, TUM
1985 – 1986	Architectural Association London, Extension Studies

### Key publications

- 1) Banihashemi F, Reitberger R, Lang W. “Investigating Urban Heat Island and Vegetation Effects under the Influence of Climate Change in Early Design Stages.” Proceedings of the 27th International Conference on Computer-Aided Architectural Design Research in Asia (CAADRIA). 2022. 679-688.
- 2) Lang W, Reitberger R, Fellner J, Petzold F. “Life Cycle Assessment of Vertical Building Extensions in Early Design Stages.” 11th Energy Colloquium of the Munich School of Engineering. 2021. 60: 1-10.
- 3) Vollmer M, Theilig K, Lang W. “Impact and Allocation of Building Emissions.” Journal of Physics: Conference Series. 2021. 2042(1): 1-9.
- 4) Marx D, Reitberger R, Kleeberger M, Lang W. “Automated Workflow for Simulating the Effect of Green Façades on Indoor Thermal Comfort.” IOP Conference Series: Earth and Environmental Science. 2021. 1: 1-10.
- 5) Lang W, Geyer P, Petzold F, König M. “Consistent Management and Evaluation of Building Models in the Early Design Stages.” Journal of Information Technology in Construction. 2020. 25: 212-232.
- 6) Lang W, Heinrich MA. “Capture and Control of Material Flows and Stocks in Urban Residential Buildings.” IOP Conference Series: Earth and Environmental Science. 2019. 225(1): 012001.
- 7) Anderson JE, Wulffhorst G, Lang W. “Energy Analysis of the Built Environment: A Review and Outlook.” Renewable and Sustainable Energy Reviews. 2015. 44: 149-158.
- 8) Shao Y, Geyer P, Lang W. “Integrating Requirement Analysis and Multi-Objective Optimization for Office Building Energy Retrofit Strategies.” Energy and Buildings. 2014. 82: 356-368.

- 9) Weißenberger M, Jensch W, Lang W. "The Convergence of Life Cycle Assessment and Nearly Zero-Energy Buildings: The Case of Germany." Energy and Buildings. 2014. 76: 551-557.
- 10) Herzog T, Krippner R, Lang W.: "Facade Construction Manual." Basel: Birkhäuser, 2004. Revised and expanded editions, including the 3rd edition, reprinted in 2018.

### **Most important prizes and awards**

2024	Best Paper Awards at WSBE24 Conference:
2022	TUM Sustainability Award
2019	"Doce et Delecta" awarded by the Student Council BGU for the best teaching (second prize) in the category "Lecture" for the Bachelor of Civil and Environmental Engineering, SS 2018 – WS 2018/2019, "Fundamentals of Sustainable Construction, TUM
2008	International Building Skin-Tech Award 2008 (first prize) for "School Systems for Hot Climates" in collaboration with Prof. Dr. Thomas Herzog, Munich, Dr.-Ing. Kurt Stepan, Munich, and the Center for Applied Energy Research (ZAE Bayern e.V.), Munich
2000	Doctoral Award of the TUM Association of Friends
1990	Award Best Master Thesis M. Arch. II, UCLA
1988	Döllgast Award for Diploma Thesis, TUM

### **Most important memberships and committee activities**

since 2024	Member of the selection committee for the Humboldt Research Fellowship Program of the Alexander von Humboldt Foundation
since 2023	Member of the Board of Trustees of the Center for Applied Energy Research, Würzburg
since 2023	Member of the Scientific Committee of the Sustainability Award of the Nobel Sustainability Trust
2014 – 2018	Member of the Scientific Advisory Board of the Center for Applied Energy Research (ZAE) Bavaria
2013 – 2014	Member of the Expert Group of the Federal Institute for Research on Building, Urban Affairs and Spatial Development at the Federal Office for Building and Regional Planning, BMVBS
since 2013	Associate of PLEA – Sustainable Architecture & Urban Design, international network of Passive Low Energy Architecture

### **Reviewer activities for international journals**

since 2021	Energy Reports, Elsevier
since 2021	Journal of Environmental Management, Elsevier
since 2020	Resources, Conservation & Recycling, Elsevier
since 2019	Sustainable Cities and Society, Elsevier