

Department of Civil and Environmental Engineering Distinguished Seminar Series

Stakeholder-Driven Strategies in Regional Assessment Models: the Case of Energy Transitions in Northwest Germany

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Abstract

Regional assessments of energy and climate change policies increasingly rely on input from stakeholder communities to identify robust strategies for investment and policy-making. In this presentation I provide an example of such an assessment for the identification of low-cost and low-carbon strategies in Germany's Northwest Metropolitan Region in the light of changing technological, socioeconomic and climate conditions. Special emphasis will be placed on the management of uncertainties in stakeholder-guided regional assessment modelling, including uncertainties that surround the translation of stakeholder inputs for uses in scenario development and policy guidance.

Bio

Dr. Matthias Ruth is the director of the School of Public Policy and Urban Affairs and a full professor in the School and in the Department of Civil and Environmental Engineering at Northeastern University.

Professor Ruth holds a Master's degree in Economics from the University of Heidelberg, Germany and a PhD in Geography from the University of Illinois, where he also received training in engineering and biology. His research focuses on dynamic modeling of natural resource use, industrial and infrastructure systems analysis, and environmental economics and policy. His theoretical work heavily draws on concepts from engineering, economics and ecology, while his applied research utilizes methods of non-linear dynamic modeling as well as adaptive and anticipatory management.

Applications of his work cover the full spectrum from local to regional, to national and global environmental challenges, as well as the investment and policy opportunities these challenges present. Professor Ruth has published 15 books and over 130 papers and book chapters in the scientific literature.

He is a member of the European Academy of Sciences, serves on the boards of numerous journals and scientific organizations, is a founding Co-editor in-Chief of the journal <u>Urban Climate</u>, and collaborates extensively with scientists and policy makers worldwide.



Matthias Ruth, PhD

Professor and Director, School of Public Policy and urban Affairs Professor, Department of Civil & Environmental Engineering

NORTHEASTERN UNIVERSITY

Education

- PhD, Geography, University of Illinois
- MS, Economics, UNIVERSITY OF HEIDELBERG, GERMANY

Research Interests

- Ecological economics
- Dynamic modeling
- Microeconomics & policy
- Resource & environmental economics and policy
- Industrial & infrastructure systems analysis

Selected Service and Awards

- Director, Resilient Cities Lab
- Author or editor of 12 books
- Instructor, Dynamic Modeling for Environmental Investment and Policy Making
- Founding Co-editor in-Chief, <u>Urban Climate</u>
- Lead or Contributing Author, National Climate Assessment, Washington D.C.





