# THE MODELLING OF ENERGY TRANSITION CULTURES | VISIONS | NARRATIVES

International LMET Conference Funded by the Volkswagen Foundation

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#### A SOCIAL MISSION

Energy transition is a social mission striving to correct a social failure: the effects of climate change. It operates within a zone of conflicts, of political uncertainty and ecological awareness, yet is eager to establish a zone of consent. Fifty years from its initial set-up by the Club of Rome, this wake-up call revealing the entanglement of economics, old and new technology and the environment has turned into a global movement. Stake-holders and public discourse, mainstream culture, grassroot movements and the academia have come, it seems, to an agreement on the subject matter: *Energy transition must not fail*. And yet the ways in which this strange alliance would achieve their common goal are still highly contentious.

This intersectional conference will offer a deep probe of the variety of technical and social layers pertinent to energy transition and technology assessment alike. It will investigate their modelling of narratives, transmedial representations, distribution concepts and communicative strategies. To reach this aim, the conference will bring together experts from a multitude of disciplines who are engaged with or can contribute to facing the intriguing challenges of energy transition in technology and economics, sociology and politics, but also from the point of view of cultural and literary studies, theory of science, and philosophy. In doing so, the conference will offer its participants an opportunity to lay aside, for once, professional or disciplinary restrictions and exchange their views in a cross-over context that, ideally, creates a new collaboration profile for the sciences and the humanities.

# MODEL CRITICISM & THE ENERGY IMAGINARY

Models play a central part in the designs of energy transition and in the attempts and strategies to put them into practice. Thus, the art and craft of fabricating models is a driving force of technological development, but also – and much harder to discern – of social and cultural change. Beyond its instrumental qualities of bringing things about or make them happen, modelling conveys both a creative agency and a conceptual power. Everything related to an absence or a future; everything entangled in complexities beyond the reach of minds and senses; everything that needs to be controlled and ordered; everything that has to be evolved, enhanced or overcome by new conjectures – every object in the border zone of data and imagination needs modelling in the first place. By representing an existing item (object, matrix, archetype) or by conceiving of a future one, all models are supposed to bridge the gap between the facts that ,come in handy' and the consequences that are ,out of hand'. Though model theories are gaining insight into the intricacies of skills and concepts, they still

tend to overlook (or underestimate) the technosocial underpinnings, aims and strategies of modelling. The intersectional approach provided by this conference will contribute to make transparent the intentions and emergences in energy technology and energy transition. Thus, we welcome contributions from technology professionals, administrators and communicators, engineers, ecologists and ecocritics, lawmakers, sociologists and experts in cultural studies, literature and education science, as well as from performers in popular culture and in the arts. Encouraging this wide variety of voices and perspectives, the conference is dedicated to the future energy ,prosumer', to the average consumer that will also act as a producer of renewable energy.

Both as a technological endeavour and as a societal creative claim the modes of energy transition and its modelling are deeply rooted in what may be termed the Energy Imaginary. As a type of modelling the Self, the Other and the World it sets the scene for two familiar narratives: decline as overcome by progress, and apocalypse as conquered by salvation. Greta Thunberg's entry on the stage of a debate that is evolving rapidly into a battle between Good and Evil throws into relief the cultural dimensions of what once had been an expert discourse on effects of science and technology. Evoking images reminiscent of social combats or a children's crusade, movements like Extinction Rebellion or Fridays for Future have reached a level of emotional intensity and moral rigour unexpected by the well-established stakeholders in the political and economic field. Accompanied at last by dire warnings from the academia and promises provided by the industry, these narratives have finally acquired the status of a 21st century myth. They trigger an imaginary power building on scientific facts and rendered into popular representations in a wide variety of modes: in documentaries and mockumentaries, in round table discussions, talk shows, demonstrations, strikes, in novels, movies and computer games. Here, models do not only show their instrumental or heuristic properties but also their aesthetic value, that, in turn, is strengthening their functional value as well. This wealth of narratives connected with the social and aesthetic sides of energy transition modelling has also spawned some new scientific, rather unconventional collaborations, such as the cross-over research of applied technology and literary studies in the LMET project (see below).

# THE CLUB OF NOW

Scientific facts and models notwithstanding, it is time to take into account the apprehensions, expectations and demands of a new global movement, rooted in scientific discourse, (post-)apocalyptic visions and utopian concepts alike. The time has come to analyse their genres, formats and performances as parts of a new type of discourse that may challenge and improve, but also undermine the structure of our democratic societies. However, this assessment has to take into account the aims and strategies, the aporias and solutions of scientific modelling in energy technology, experienced and tackled by the modelling agents themselves. Thus, only with regard to active modelling in energy technology and informatics, engineering and production can an intersectional approach to Energy Transition make a difference.

By viewing Energy Transition as a social discourse with disruptive qualities, the conference will look into the intricate relations between energy transition models, cultural performances and social narratives. Thus, it will contribute to extricate the Energy Imaginary from a multitude of voices and representations, crossing boundaries between the sciences, humanities, and arts. In doing so, the conference takes up and builds upon the challenges identified and tackled by the Club of Rome, reviewing and adjusting their contemporary forms in order to communicate their underlying models, both to politics and to the public at large.

## **KEYNOTE:**

Professor Baas van Fraassen, Princeton University Emeritus

#### POSSIBLE SECTIONS

Sections and panels serve as suggestions for possible topics.

- TECHNOLOGIES: Disruptive Technologies // panel proposals: scaling, regulation & control, critical infrastructures, safety & security, energy systems design, biofuels, sector integration
- II. MODELS: Model Theory, Model Criticism, Model Communication // panel proposals: models & simulations; modelling agencies, models & media, models & literary forms, models & modality
- III. RISKS: Environment, Economy, Law, Finance // panel proposals: consumer, prosumer, flexumer; storage & usage; fusion & confusion (energy mix)
- IV. PROJECTIONS: Administration & Technology Assessment // panel proposals: energy politics; energy markets design; generation, transmission, conversion; sector integration & mobility
- V. REPRESENTATIONS: Imaging, Rhetorics, Visions // panel proposals: sign systems; augmented reality; simulation; gaming & serious games; emergence and immersion
- VI. PLOTS: Myths, Emplotments, Genres // panel proposals: topoi & archetypes; transparency & opacity; smartness; autarky; control; cellularity vs centralisation; popular science; tragedy/comedy/idyll
- VII. FUTURES: Utopian & Dystopian Settings, Esotericism & Alternative Science // panel proposals: unity & totality; essence; authenticity & immediacy; naturromantik & kulturkritik
- VIII. INTERPRETATION: Psychology, Sociology, Art // panel proposals: hermeneutics; ecocriticism; deconstruction; gender
- IX. COMMUNICATION: Education, Pedagogy, Didactics // panel proposals: eco politics; marketing; presentation techniques; textbook; gamification
- X. CONSULTING: Collaboration, Distribution, Support // panel proposals: Club of Rome; Digital Humanities projects; knowledge transfer; systems analysis

# PAPER OR PANEL PROPOSAL, PROPOSAL FOR ROUND TABLE DISCUSSIONS

The conference schedule will provide an opportunity for the respective sections to interact in intersectional round table and panel discussions. Please specify if you would like to provide a section or a panel proposal or/and a panel contribution. Please send your abstract(s) of 500 words by 30/06/2020 to: <a href="mailto:erdbeer@uni-muenster.de">erdbeer@uni-muenster.de</a>

CONFERENCE FEE: 100,- EUR, Conference Dinner included.

#### ABOUT THE CONVENER: THE LMET NETWORK

Literary Modelling and Energy Transition (LMET) is a collaborative research and consulting network at the University of Münster (WWU) and the Karlsruhe Institute of Technology (KIT). Funded by the Volkswagen Foundation, LMET targets one of the most controversial challenges — and most ambiguous topics — of contemporary science and society: the modelling of energy transition. Analysing the transition energies that forcefully emerge whenever long-established strategies, technologies and energy resources are to be replaced by new and non-conventional alternatives, the research group develops a strategic roadmap for a thorough understanding of the process at large. By viewing it both as a technological and as a cultural endeavour, LMET takes into account the hidden or subdued agendas of the technosocial setting in question: of the undisclosed aesthetic, ethical, political, historical and even esoteric values that pervade the Energy Imaginary and its narratives.

### THE LMET TEAM

KLAUS STIERSTORFER, British and American Studies, WWU University of Münster, Project Speaker

ROBERT MATTHIAS ERDBEER, German Literature, WWU University of Münster, Scientific Coordinator

ERIC ACHERMANN, German and Comparative Literature, WWU University of Münster

ARMIN GRUNWALD, Physics, Philosophy, Director of ITAS Institute for Technology Assessment and Systems Analysis, KIT Karlsruhe Institute of Technology

VEIT HAGENMEYER, Cybernetics, Informatics, Director of IAI Institute for Applied Informatics, KIT Karlsruhe Institute of Technology

INES LANGEMEYER, Pedagogy, Teaching & Learning Research, KIT Karlsruhe Institute of Technology