Institute for Advanced Sustainability Studies
IASS in Potsdam

IASS Project Systemic Risks

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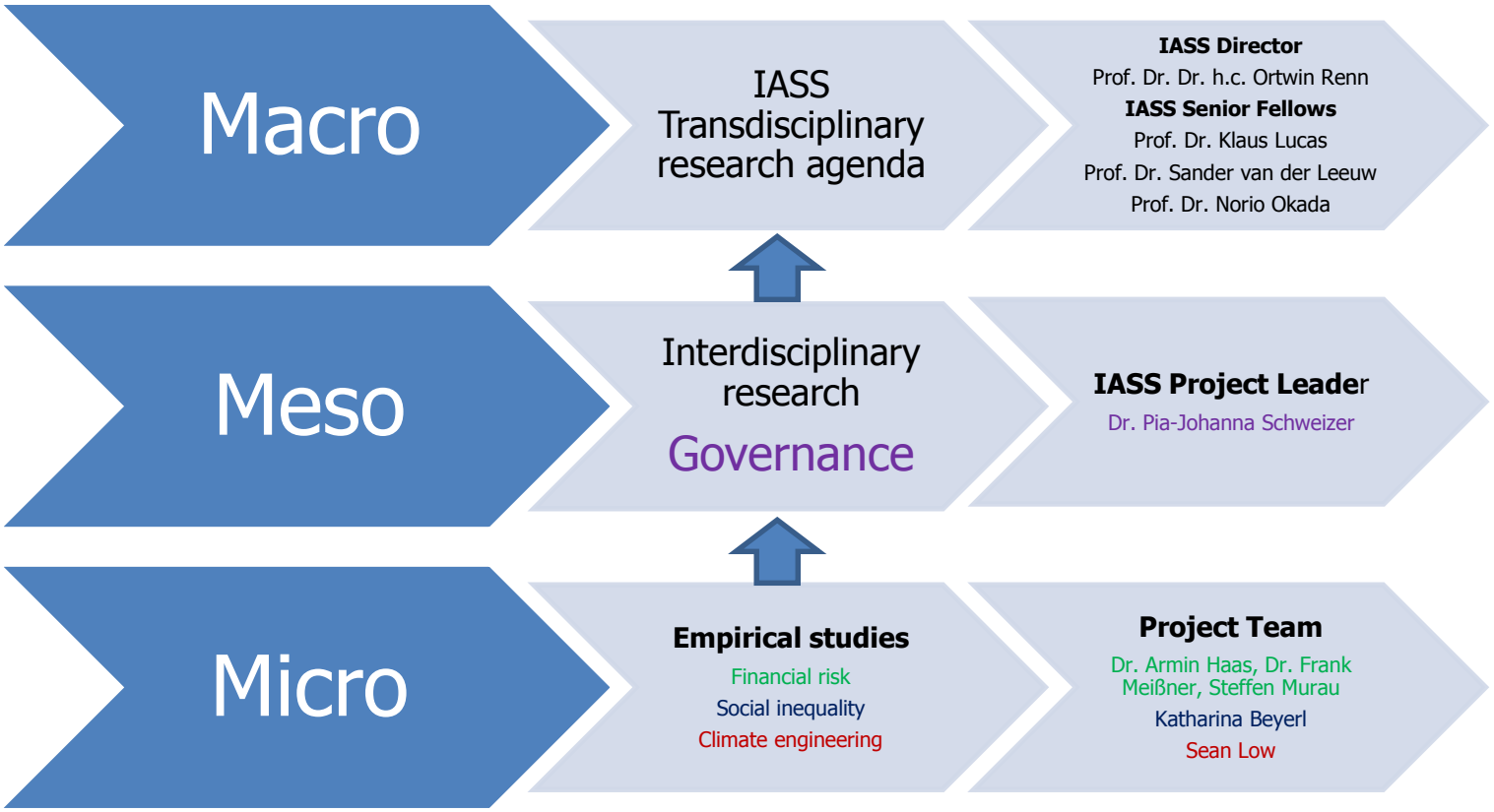
IASS project „Systemic Risks“

Overview

Aims

- Agent based modelling of systemic risks
- Integrative concept of emerging systemic risks
- Identification of tipping points leading towards system change
- Improved governance of systemic risks
- Transformative risk research

Project Structure



IASS project „Systemic Risks“

Thematic Focus

Definitions

- „Risk is uncertainty about and severity of the consequences (or outcomes) of an activity with respect to something that humans value.“ (Aven and Renn 2008: 1)
- The term systemic risk describes the extent to which a risk is embedded in the larger contexts of societal processes (Renn et al 2011).
- Systemic risk refers to the “risk or probability of breakdowns in an entire system, as opposed to breakdowns in individual parts or components, and is evidenced by co-movements (correlation) among most or all parts” (Kaufmann and Scott 2003: 372).

Concepts of systemic risk

- Epistemological Challenges
  - Complexity
  - Uncertainty
  - Ambiguity
- Transboundary hazards
- Transgression of system boundaries
- Non-linear development

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Methodology

Interdisciplinary research methodology

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Research agenda

Activities and events

- EU-projects “Green Win” and “Dolfins”
- Research initiative “Systemische Risiken als Prototypen Dynamischer Strukturbildung“ together with Berlin-Brandenburgische Akademie der Wissenschaften (BBAW)
- Annual meeting with International Risk Governance Council at IASS
- IASS will host Society for Risk Analysis Europe‘s annual meeting 2019
- Handbook „Risk and Technology“ Edward Elgar Publishing

Networks

- Berlin-Brandenburgische Akademie der Wissenschaften
- Global Climate Forum
- Arizona State University
- Society for Risk Analysis
- International Risk Governance Council

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