



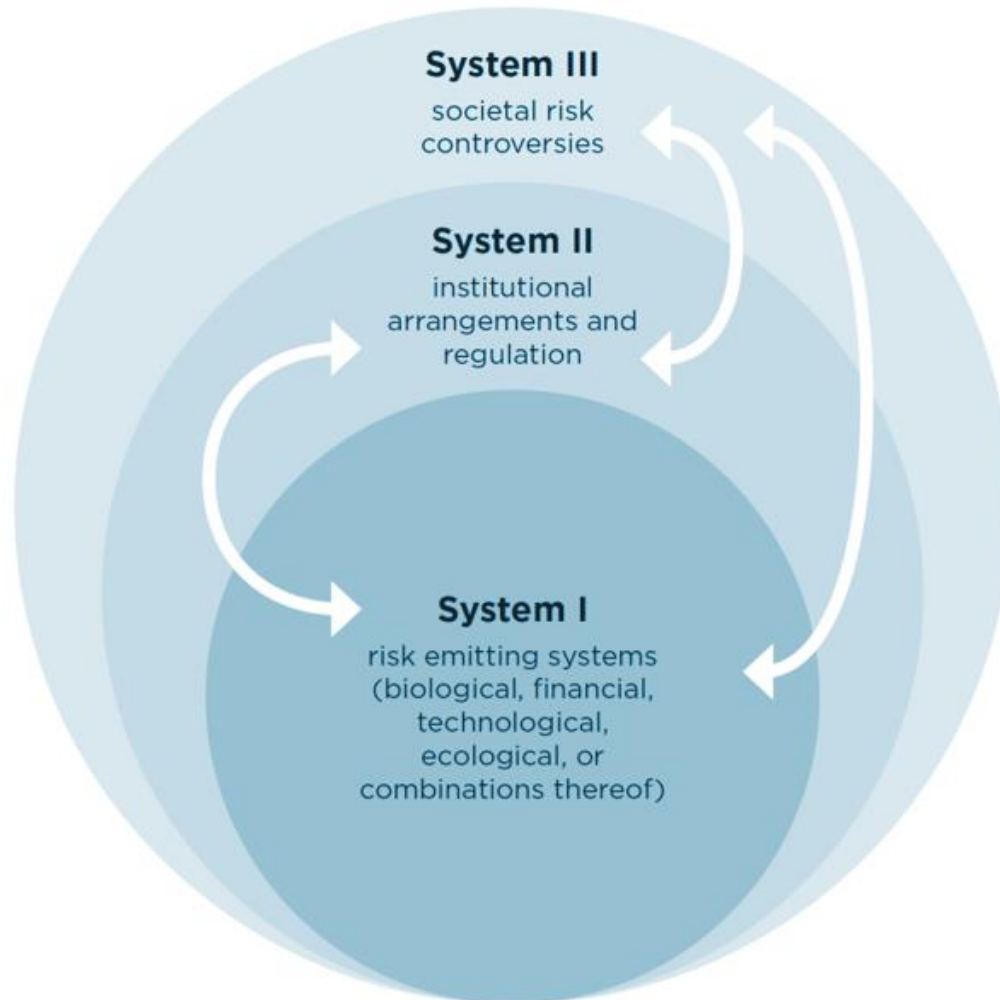
Identifying, Assessing, and Governing Systemic Risks: Towards an Integrative Framework
Cascades Conference

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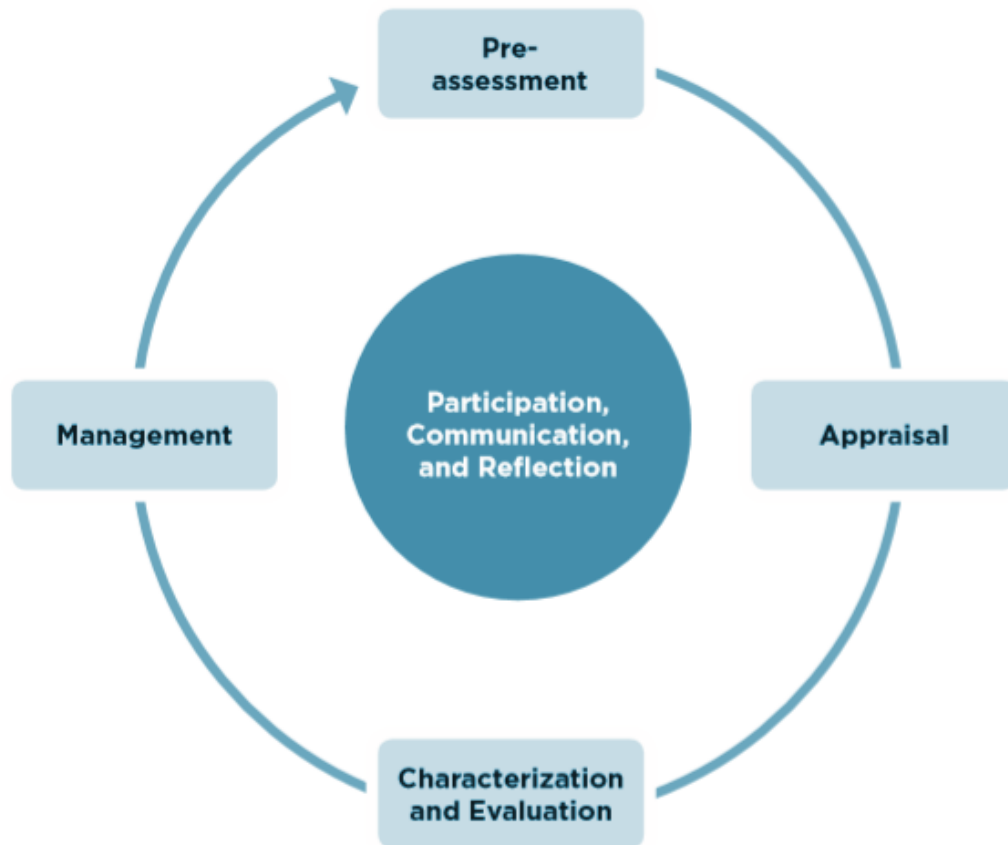
- Complex interdependencies
- Transboundary effects
- Nonlinearity
- Tipping points
- Attenuation/amplification of risk perception and lag in policymaking

(Renn et al. 2022; Schweizer 2021)

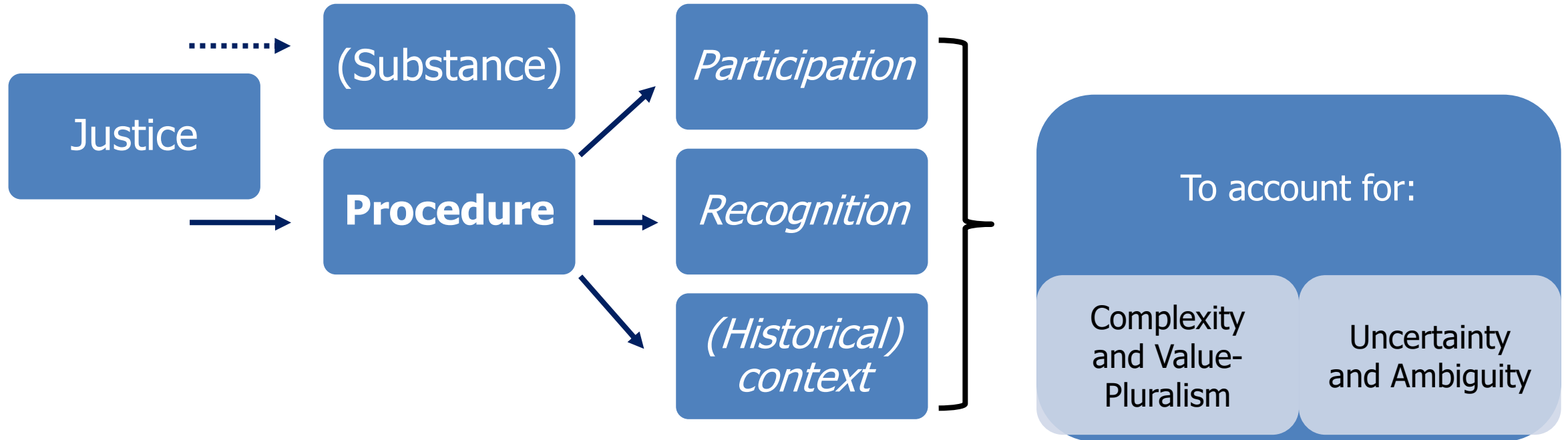


- Boundary analysis
- Interdisciplinary and cross-sectoral cooperation
- Decision landscapes and actor networks

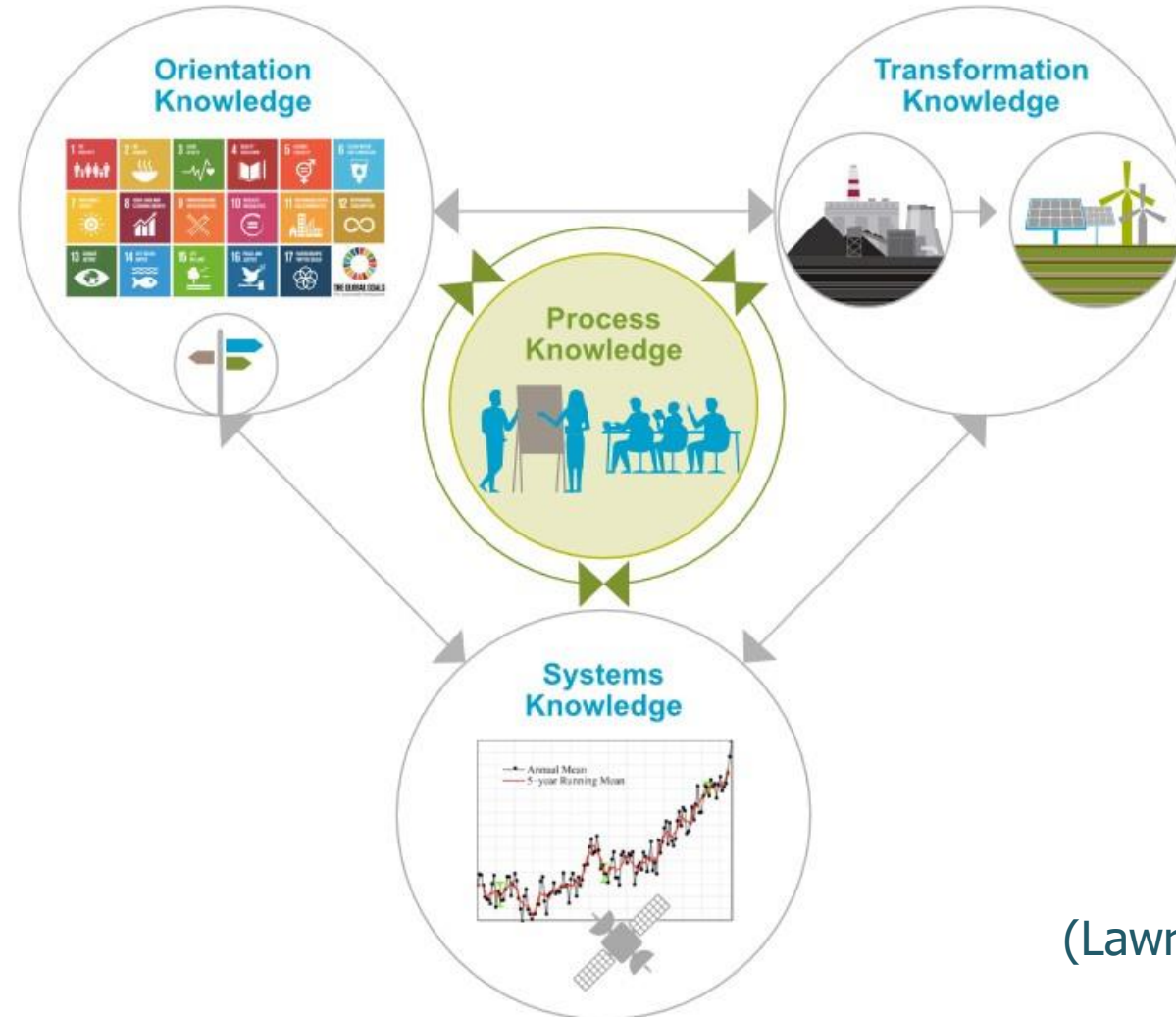
(Schweizer, Goble, & Renn 2021)



- Adaptability
- Reflection
- Iteration
- Inclusion
- Transparency
- Accountability

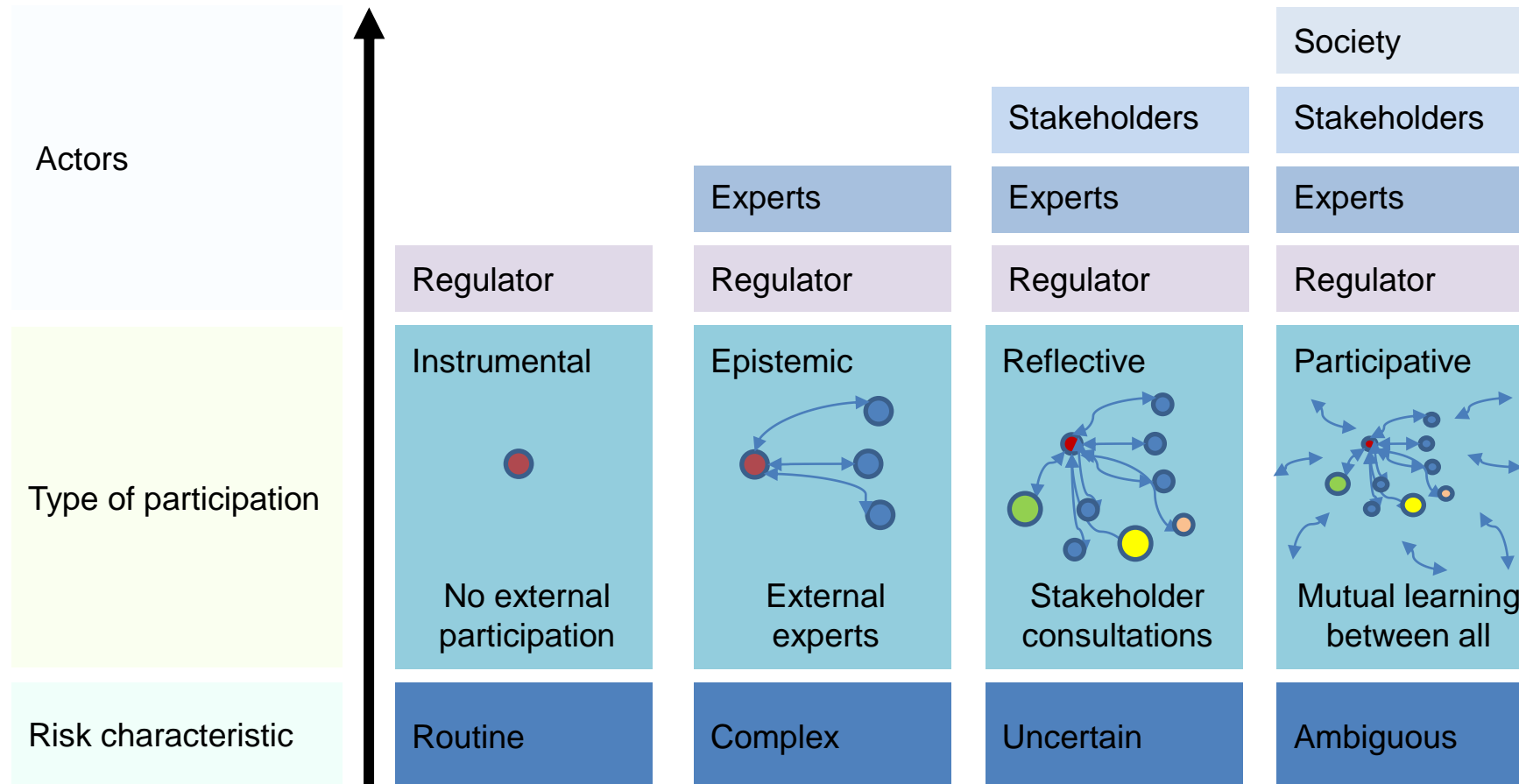


Transdisciplinary Research: Co-creation of Knowledge



(Lawrence et al. 2022)

Framework for Organizing Dialogue and Learning



Based on the risk governance approach of the International Risk Governance Council (IRGC)

Participation and Engagement: Schools of Thought

| Concept | Main objective | Rationale | Formats and tools |
|---------------------------------|--|--|---|
| Functionalist | Improvement of quality of decision output | Representation of all knowledge carriers, integration of systematic, experiential and local knowledge | Delphi, hearing, inquiry, citizen advisory committee |
| Neo-liberal | Representation of all values and preferences in proportion to their share in the affected population | Informed consent of the affected population, seeking Pareto optimal win-win solutions | Referendum, focus group, negotiated rule-making, mediation |
| Deliberative-rational Discourse | Competition of arguments with respect to criteria of truth, normative validity and truthfulness | Inclusion of relevant arguments, reaching consensus through argumentation | Discourse oriented models, e.g., deliberative workshop, mini-public |
| Anthropological | Common sense as ultimate arbiter in disputes (jury model) | Inclusion of non-invested laypersons representing basic social categories such as gender, income, and locality | Consensus conference, citizen jury, citizen's assembly |
| Emancipatory | Empowerment of disenfranchised groups and individuals | Fostering agency of those who suffer most from environmental degradation and systemic inequalities | Action group initiative, community development group, science shop |
| Post-modern | Demonstration of variability, plurality and legitimacy of dissent | Acknowledgment of plural rationalities, no closure necessary, mutually acceptable arrangements are sufficient | Open forum, open space conference |

- Interdisciplinary risk analysis and appraisal incorporating quantitative and qualitative indicators
- Transdisciplinary risk evaluation of risk-risk tradeoffs
- Risk governance targeted towards
 - Sustainability
 - Societal resilience

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