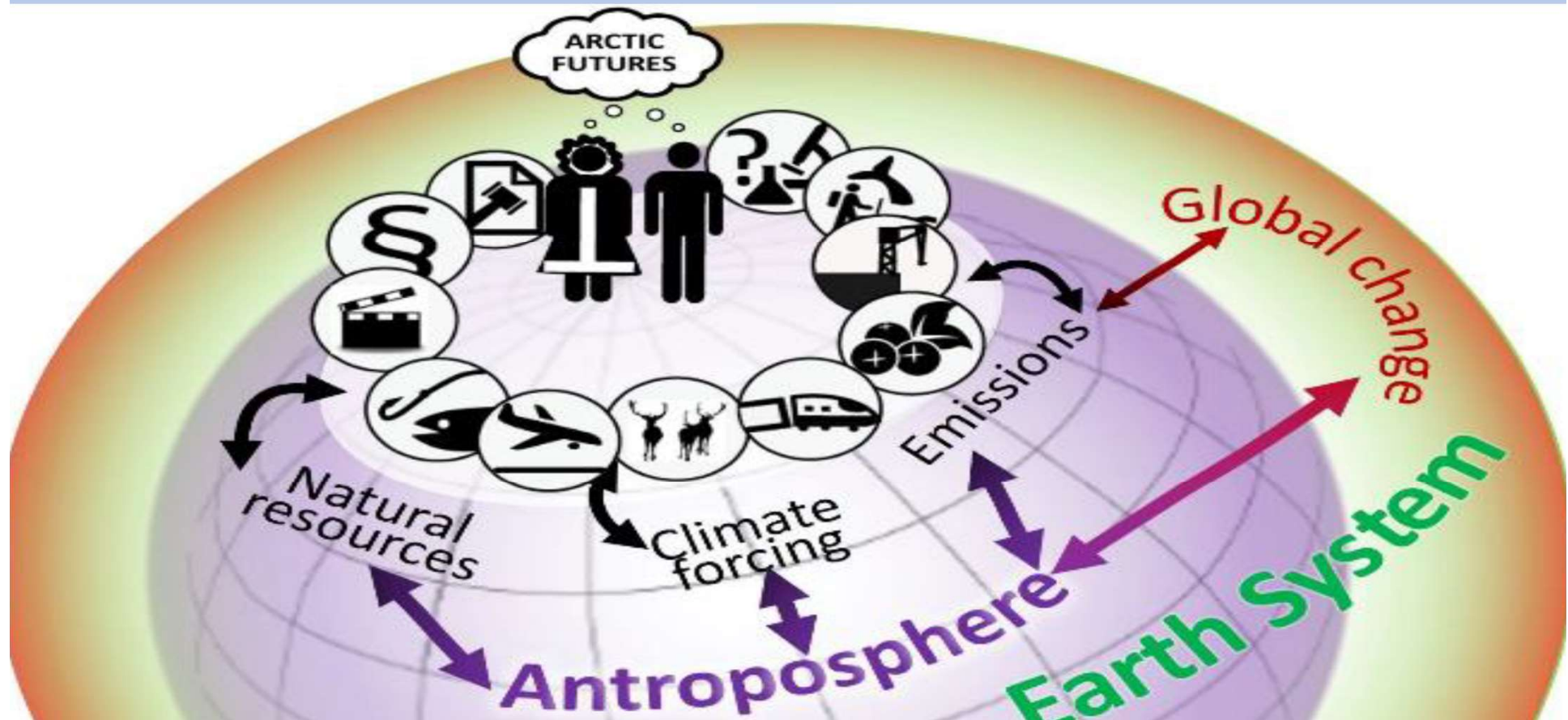


FutArcSoc as a Novel Inter & Transdisciplinary Research Concept for an Analysis of Arctic Environment & Societies

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The FutArcSoc aims...

- .. to promote a holistic, critical and policy-oriented approach to the trend of slow progress and inefficient state policies in climate change mitigation & implementation of sustainability in the Arctic; and..
- .. to create & develop an active transdisciplinary dialogue-based platform, and not-yet-done experimental method, for policy-shaping & making.

Behind 1: An 'Arctic Paradox'

- Melting of Arctic sea ice leads to a 'huge temptation' to exploit hydrocarbons & use new sea routes => will further accelerate climate change by CO₂ emissions => better access to resources => further endanger the Earth's global habitability (*Palosaari 2011*).
- Causes a shift from environ protection to economic development by the states and TNCs & SOEs.
- Behind an ambivalence is 'Political inability' to tackle climate change, and a belief on ecosystem-based management, and science & technology.
- Whether 'industrial civilization' is capable of slowing down, and stopping fossil fuel-based development?

Behind 2: Trends based on Policies

- An ambivalence of Arctic development whenever a balance is being sought between environmental protection & climate change mitigation vis-à-vis economic activities - ‘political inability’;
- State domination supported by geopolitical stability & sovereignty vis-à-vis globalization based on international treaties;
- Focus on science for problem-solving due to climate change & ambivalence;
- New interrelationship between the Arctic and Space.

(IIASA Analysis on Arctic policies, Heininen et al. 2020)

From the North Pole of Today...



.... to the Arctic Ocean of Tomorrow?



Behind 3: Ecological Crises

- Nuclear accidents demonstrated the multiple character of ecological crises, and the vulnerability of a 'risk' society.
- The environment a material basis for human existence in a danger to be destroyed as a result of human activities, and a common factor to describe problems of relations between a man and a nature => 'politicization' of the environment.
- "The environment cannot be isolated as a specific policy field - within the society" (*Haila&Heininen 1995*).
- It matters what kind of order (e.g. Covid-19) – a 'new discipline for disciplining', or solidarity?

Research Questions

- Who are the actors in charge of Arctic development, and what their interests?
- What are the main aims, plans, policies and activities of main actors on the environment, climate change, exploitation & societal security? What the ecological and socio-economic impacts of their policies?;
- How do main Arctic actors behave?;
- What kind of new (local, national, regional, global) development and sustainable economies would be needed, how they be implemented and governed?

Who are the actors in charge?



Does a nature have an agency?



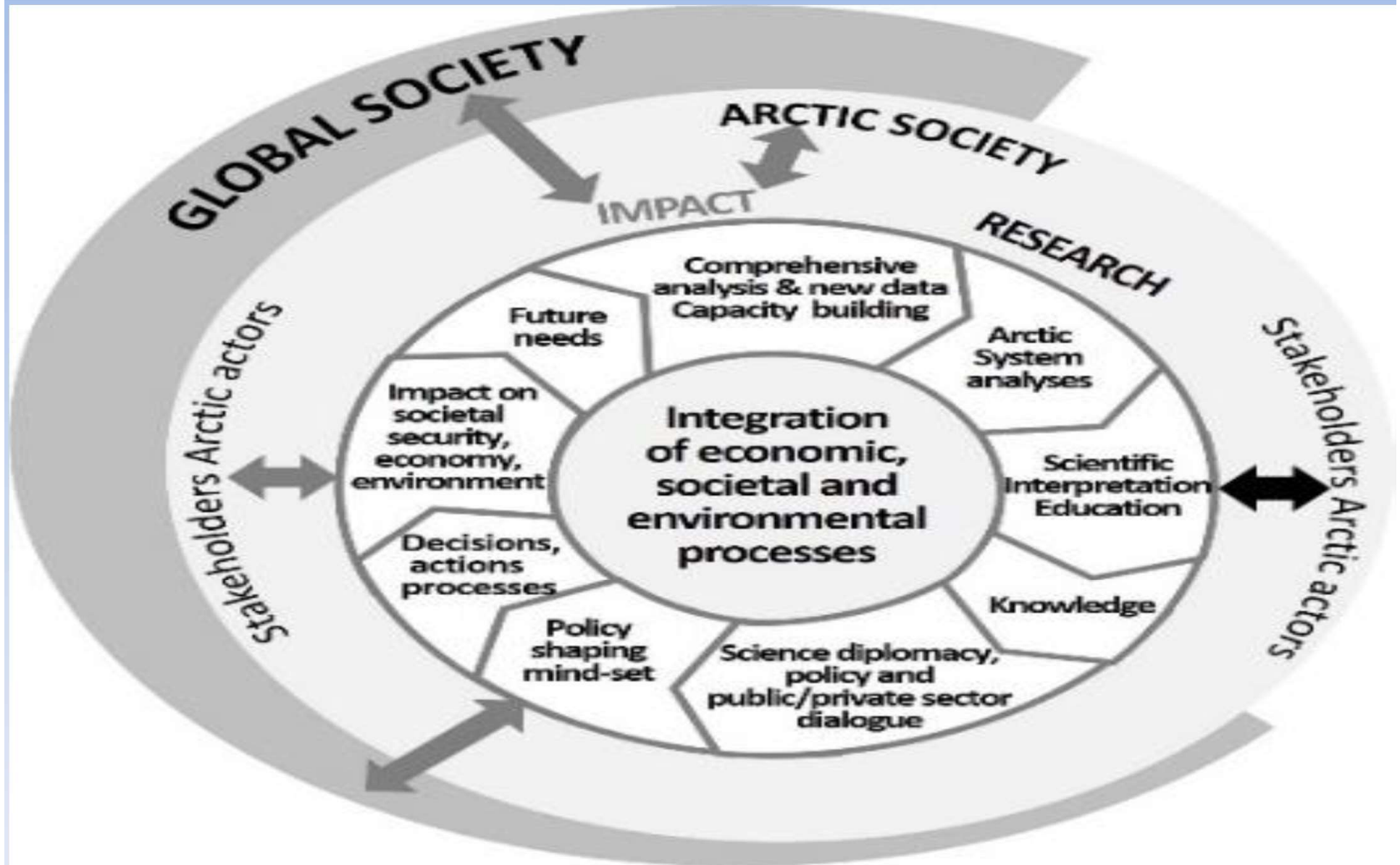
Hypothesis Two-fold

- Environmental challenges, rapid worldwide & multi-dimensional changes deal with security of people & societies => 'Societal security' interpreted as a prerequisite for plausible sustainable future; and
- All stakeholders face these challenges & changes and have knowledge on them => 'Transdisciplinary' defined the best method to find, collect, measure and further develop knowledge about sustainable future.

Methods

- Different methods focused on a) indicators, b) thematic studies & case studies, c) systematic dialogue building itself, d) with a quantitative feedback & system analysis on interconnected challenges, towards a holistic view of the dynamics of Arctic systems in relation to global developments & world politics, and e) joint terminology (priority);
- ‘Societal security’ as the main factor to enhance plausible sustainable future & ‘Transdisciplinarity’ as the key method.

Impact Objectives



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- To support public policy-shaping/making and private decision-making, as well as capacity-building;
- To enhance the Arctic ecosystem integrity, sustainability, and equal delivery of services;
- To cause a shift in mind-set for resilient common solutions on solving an Arctic development puzzle.

Foreseen Results

- A holistic scientific understanding of multiple drivers in the Arctic system: regional analysis is based on trajectories when climate change opens new possibilities & poses significant threats;
- This understanding provides necessary basis for sustainability of human activities + the design of new development – much needed due to the wicked problems & ambivalence in policies.