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What is the social plausibility assessment, and how can it contribute to the discussion of desirable scenarios?



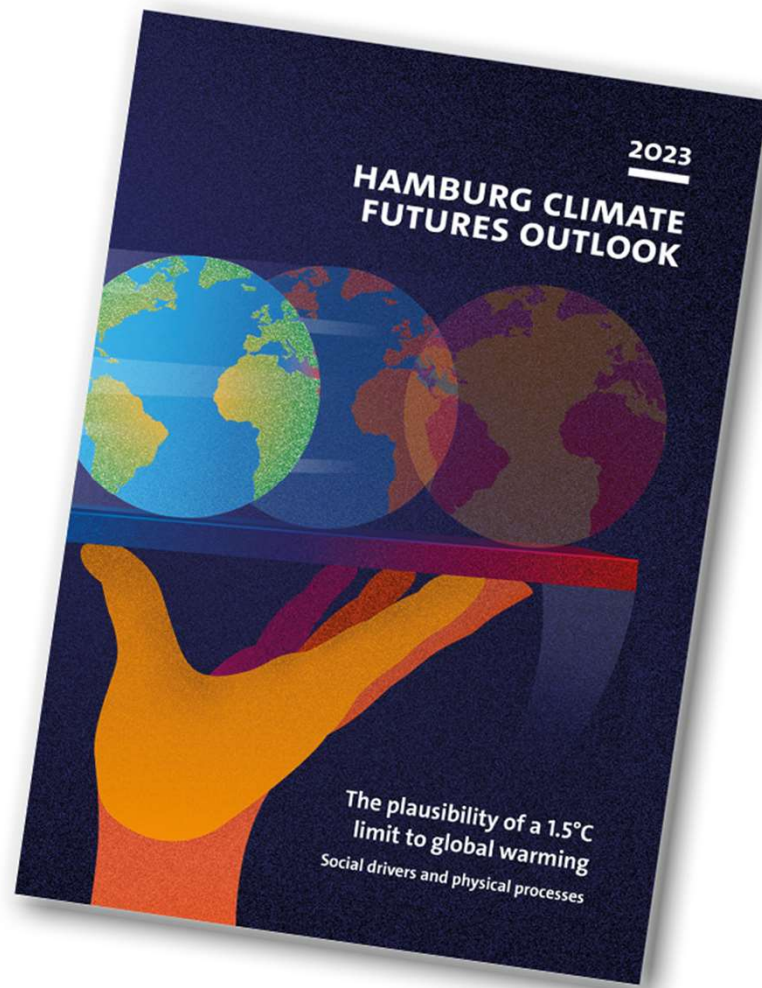
**MAX-PLANCK-INSTITUT
FÜR METEOROLOGIE**





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CLIMATE, CLIMATIC CHANGE,
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Hamburg Climate Futures Outlook 2023

The plausibility of keeping the 1.5°C limit to global warming – Social drivers and physical processes

- An integrated assessment of the plausibility of attaining the Paris Agreement goals
- Analyzing 10 social drivers + 6 physical processes
- 62 authors from different disciplines
- DOI: 10.25592/uhhfdm.11230

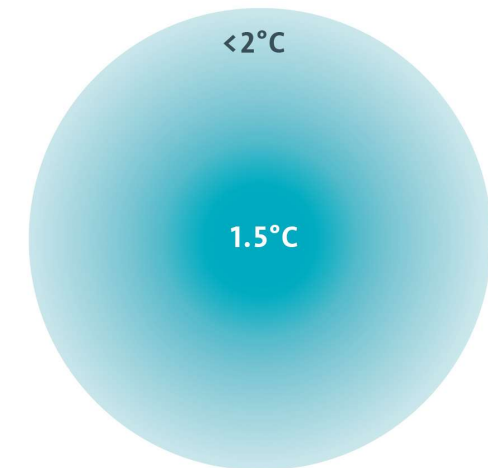


www.cliccs.uni-hamburg.de/results/hamburg-climate-futures-outlook.html

Climate Future Scenario

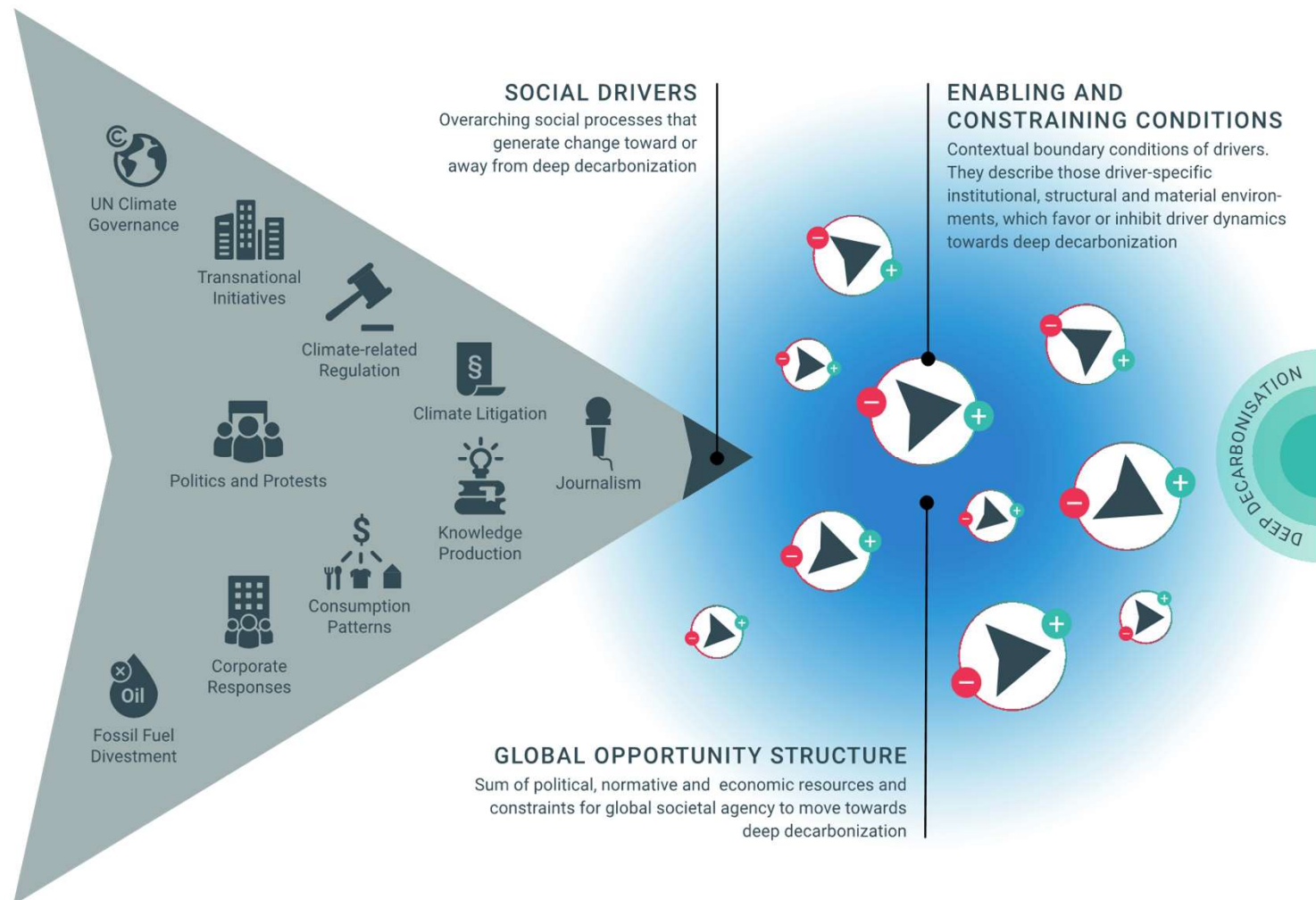
The circle represents the climate future scenario of the 2023 Outlook, which combines deep decarbonization by 2050 with the Paris Agreement temperature goals.

- Deep decarbonization by 2050
- Paris Agreement temperature goals



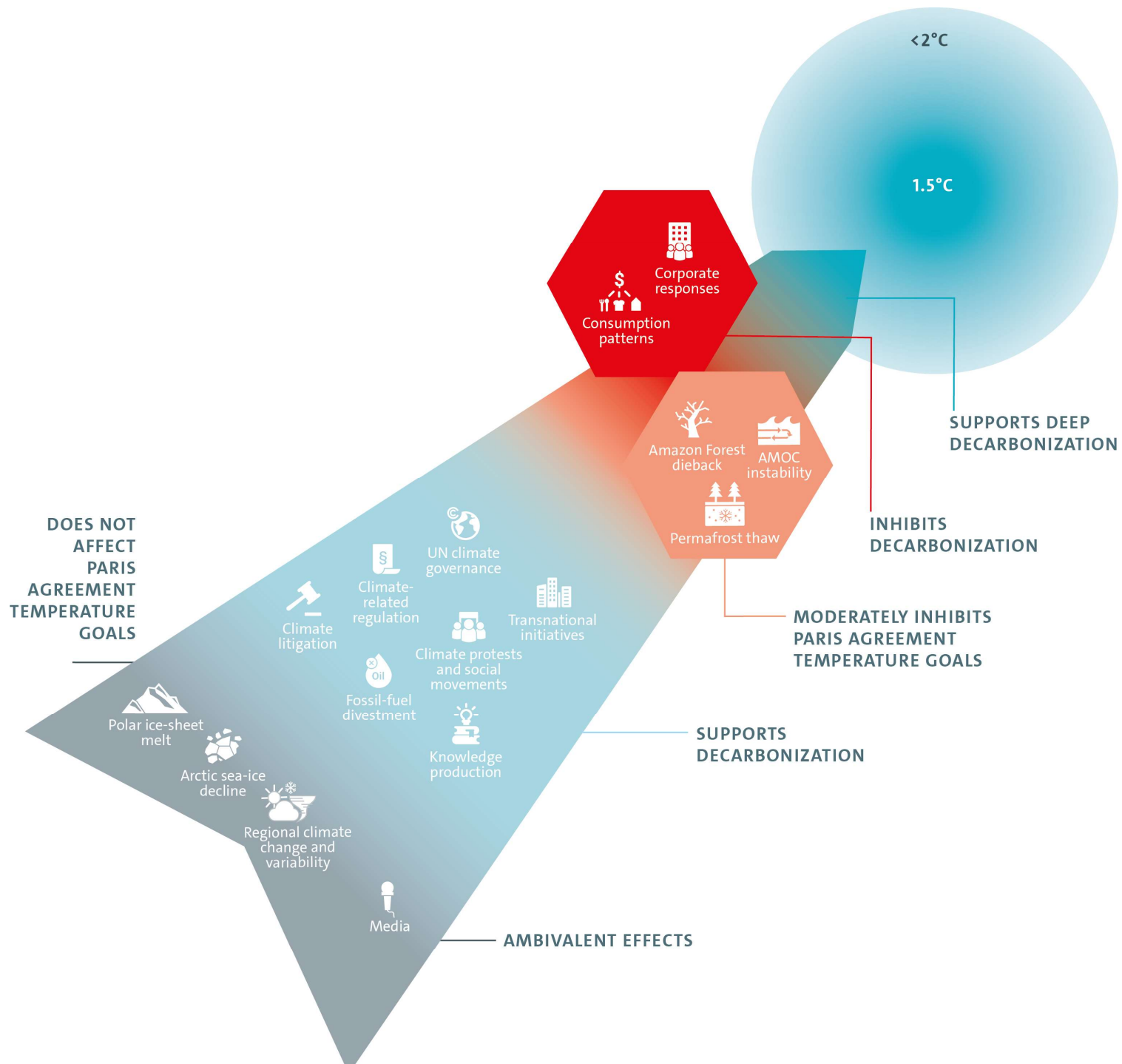
The social plausibility of deep decarbonization is central to limiting global surface temperature increase to 1.5°C above pre-industrial times, whereas the physical plausibility is assessed also with respect to a global surface temperature increase of below 2°C.

THE 2021 HAMBURG CLIMATE FUTURES OUTLOOK

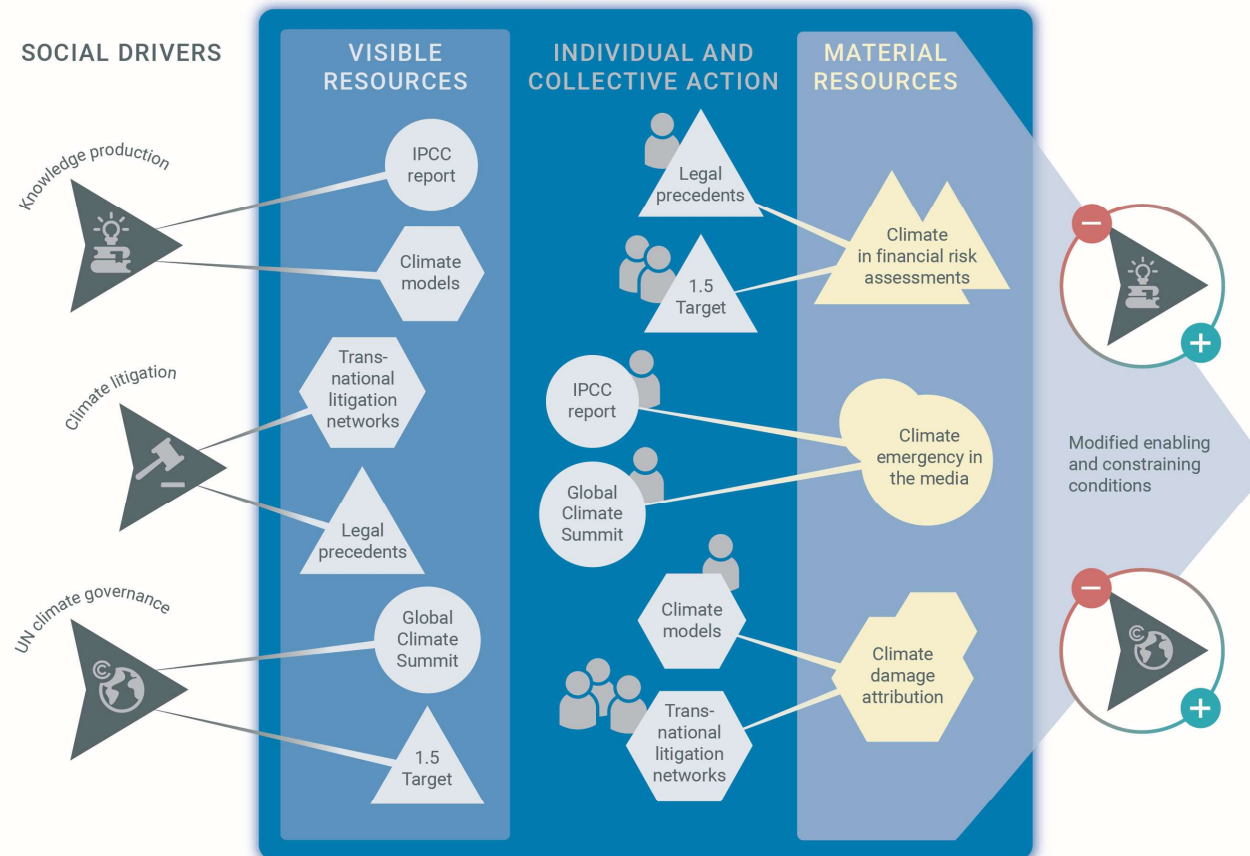


Key Findings Outlook 2023

- Meeting the 1.5°C Paris Agreement temperature goal is not plausible. Limiting the global temperature rise to well below 2°C can become plausible if ambition, implementation, and knowledge gaps are closed.
- None of the ten social drivers support deep decarbonization by 2050. The drivers *corporate responses* and *consumption patterns* continue to undermine the pathways to decarbonization, let alone deep decarbonization.
- The physical processes *permafrost thaw*, *AMOC instability*, and *Amazon Forest dieback* can moderately inhibit the plausibility of attaining the Paris Agreement temperature goals.



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