EGU25-7054, updated on 21 Nov 2025
https://doi.org/10.5194/egusphere-egu25-7054
EGU General Assembly 2025

From carbon to societal footprint : geoscience research in the face of the socio-environmental emergency

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In light of the major socio-environmental challenges of our time, ensuring a safe and just world for humans and non-humans calls for profound changes in our societies. According to the 6th IPCC WG3 report, the scale and speed of actions required to keep global warming below +2°C are unparalleled at both individual and institutional levels. Consequently, no sector nor activity - whether in the Global North or in countries moving toward similar economic trajectories - should be exempt from critical reflection on its suitability for sustainable practices. This also includes scientific research, particularly our Geosciences community at large, which not only brings to light the above challenges, but also increasingly calls for decisive action. Geoscientist communities must therefore critically reflect on the societal impact of their findings and their research practices. These considerations are being increasingly raised by ethics committees at universities and research institutes, as well as in a growing number of opinion pieces, publications, and other forms of expressions within our communities. Here we present our experience of making this pressing issue a standalone chapter in the upcoming 5-year prospective document published by the French Continental Surfaces and Interfaces research community (in French, SIC), coordinated through the French state research organization (CNRS). This marks a significant difference from previous SIC prospective editions where such reflections were largely absent. Here, we address the environmental responsibilities, strategic actions, and systemic transformations required to align SIC research with sustainability goals while maintaining scientific relevance. We argue that the community must uphold transparency and ethical leadership to ensure a balance between the environmental benefits and impacts of research. We also reflect on the potential challenges that arise from reconciling such ethical commitment with the future scientific and instrumental challenges and priorities for the future.