

Geosci. Model Dev. Discuss., community comment CC2
<https://doi.org/10.5194/gmd-2020-428-CC2>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.



Reply on CC1

Klaus Wyser

Community comment on "The SMHI Large Ensemble (SMHI-LENS) with EC-Earth3.3.1" by
Klaus Wyser et al., Geosci. Model Dev. Discuss.,
<https://doi.org/10.5194/gmd-2020-428-CC2>, 2021

Hej John---

Thanks for your comment. I think you refer to the 3rd sentence of the abstract: "Thus, it is currently the only large ensemble that allows for analyzing the effect of delayed mitigation actions versus no mitigation efforts and versus earlier efforts leading to similar radiative forcing at year 2100." and my guess is that you wonder why we state that SMHI-LENS is the only large ensemble that allows for studying the effect of delayed or no mitigation efforts. We are well aware of the large CanESM5 ensemble that is available on the ESGF. However, one of the strength of the SMHI-LENS is that comprises SSP5-3.4over that allows to study the effect of a delayed mitigation effort that doesn't start before the mid of the 21st century. Comparing SSP5-3.4over against SSP4-3.4 allows us to investigate the impact from overshooting during a few decades and the benefits from early mitigation vs delayed mitigation. Comparing SSP5-3.4over against SSP5-8.5 allows us to investigate the impact from delayed mitiagtaion vs no mitigation. These were the motivations for selecting these uncommon scenarios, and therefore we think our scenario is unique and the only one that allows for studying delayed mitigation efforts.

Best regards,

Klaus