Supplementary Information for "First Assessment of the Earth Heat Inventory Within CMIP5 Historical Simulations"

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1 Introduction

Additional Figures and Tables used in the manuscript "First Assessment of the Earth Heat Inventory Within CMIP5 Historical Simulations".

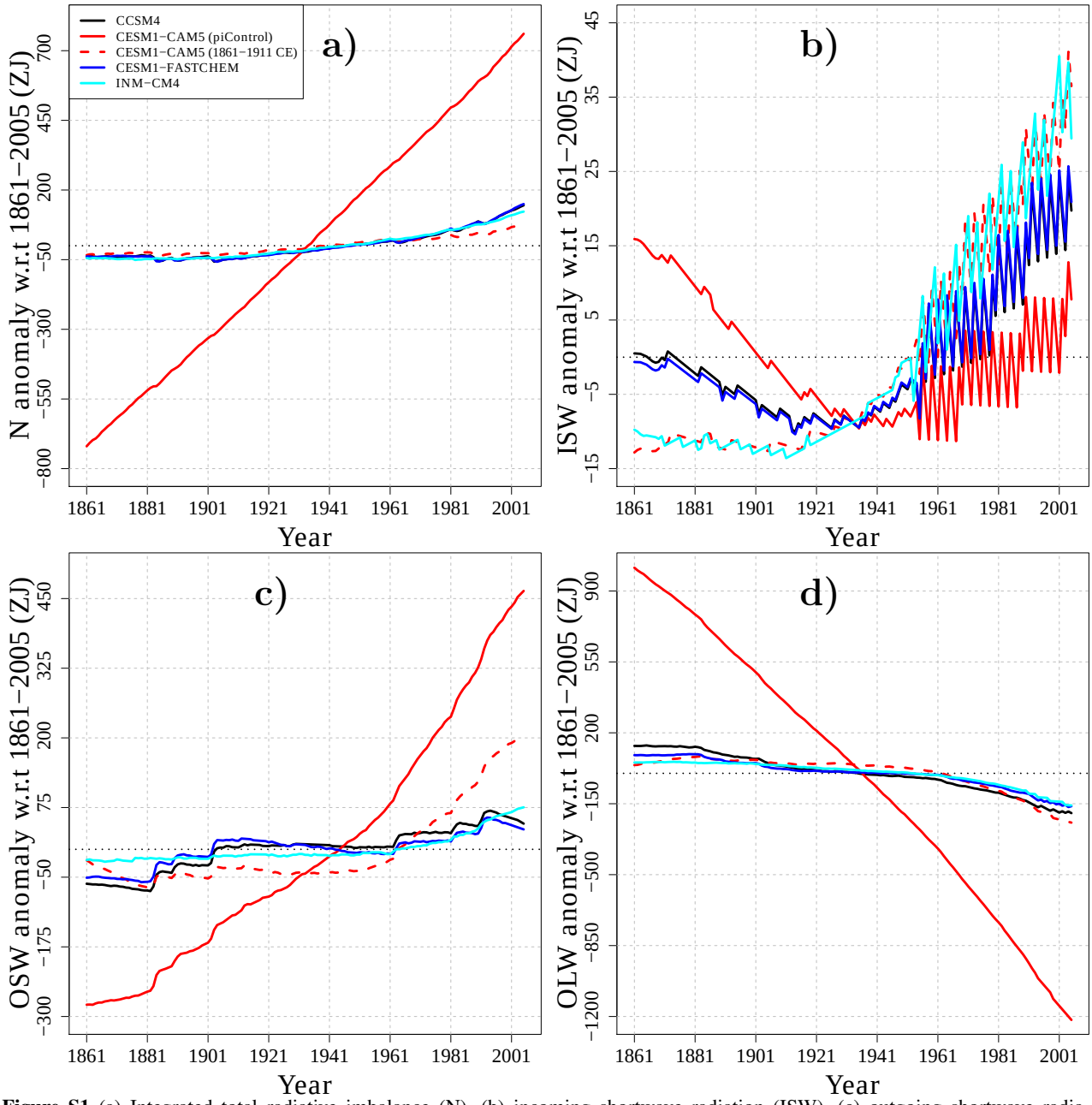

Figure S1 (a) Integrated total radiative imbalance (N), (b) incoming shortwave radiation (ISW), (c) outgoing shortwave radiation (OSW) and (d) outgoing longwave radiation (OLW) at the top of the atmosphere for the CCSM4, CESM1-CAM5, CESM1-FASTCHEM and INM-CM4 Historical simulations. Data from the CESM1-CAM5 are dedrifted using the preindustrial control simulation (solid red lines) or the first five decades of the Historical simulation (dashed red lines). Data from the rest of models are dedrifted using the corresponding preindustrial control simulation.

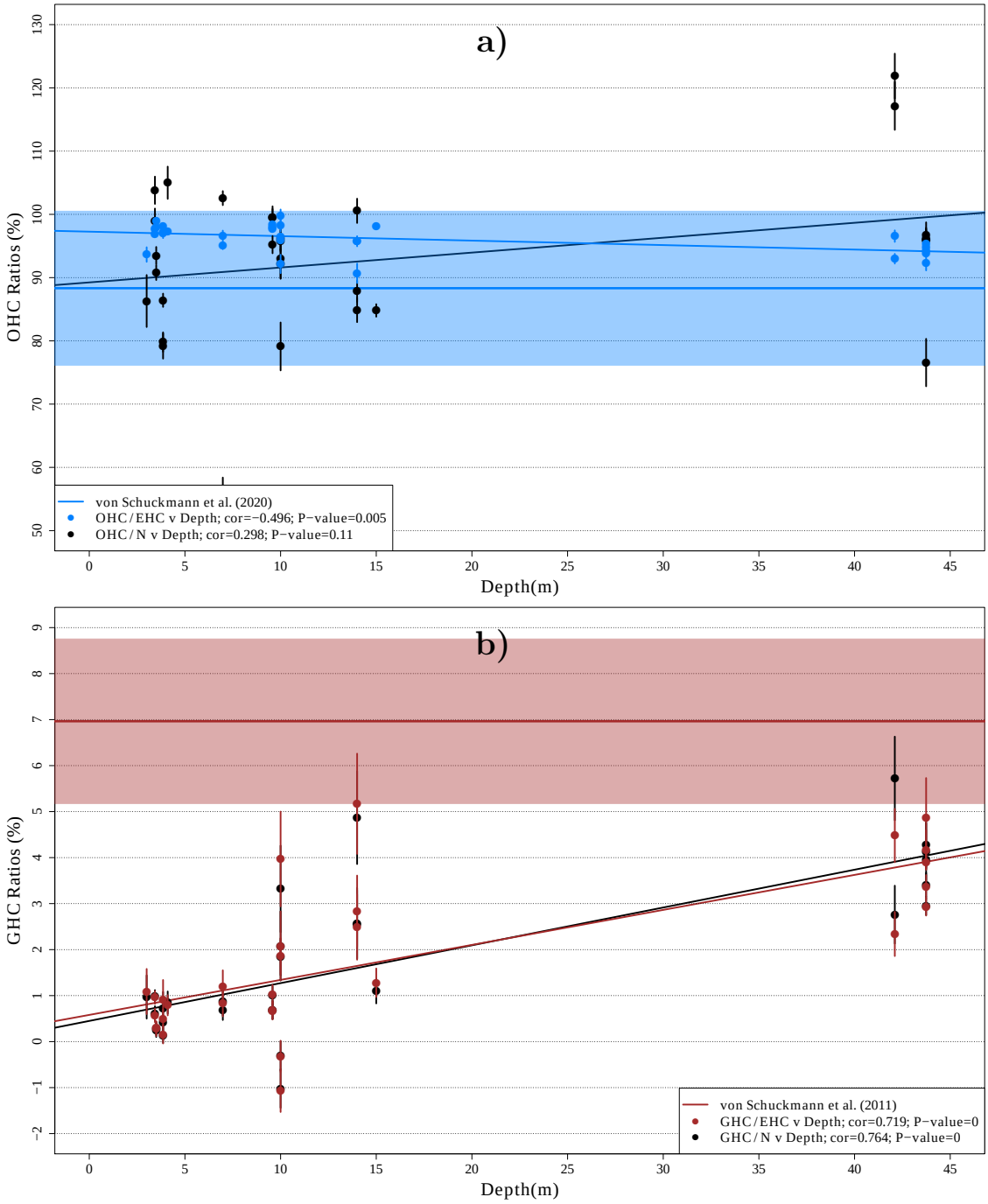

Figure S2 (a) Relationship between the proportion of heat within the ocean and the depth of the used LSM component for the period 1972-2005 CE using EHC (blue dots) and N (black dots) as estimates for the total heat content in the climate system. (b) Relationship between the proportion of heat within the continental subsurface and the depth of the used LSM component for the period 1972-2005 CE using EHC (red dots) and N (black dots) as estimates for the total heat content in the climate system. Observations from **?** are shown as solid horizontal lines and shadows (means and 95% confidence intervals). P-values retrieved considering a two-sided Student's t-distribution.

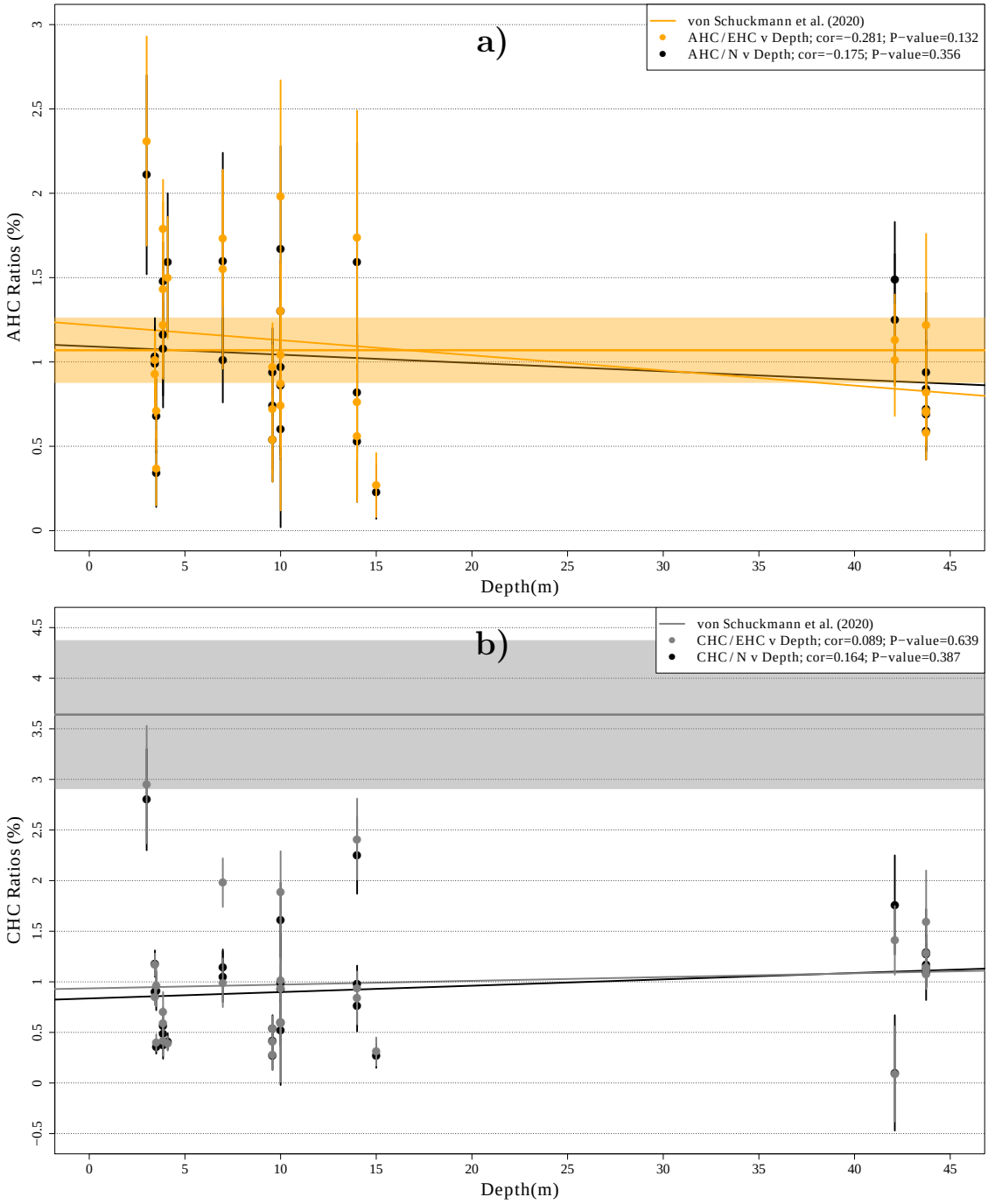

Figure S3 (a) Relationship between the proportion of heat within the atmosphere and the depth of the used LSM component for the period 1972-2005 CE using EHC (orange dots) and N (black dots) as estimates for the total heat content in the climate system. (b) Relationship between the proportion of heat within the cryosphere and the depth of the used LSM component for the period 1972-2005 CE using EHC (light blue dots) and N (black dots) as estimates for the total heat content in the climate system. Observations from **?** are shown as solid horizontal lines and shadows (means and 95% confidence intervals). P-values retrieved considering a two-sided Student's t-distribution.