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## **Community Simulations of the last Millennium (COMSIMM)**

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Knowledge of past climate variability is crucial for understanding current and future climate trends. For the first time, sufficient computational resources are available to carry out millennial-scale simulations with a comprehensive IPCC AR4-style Earth System Model. Within the Community Earth System Modelling (<http://cosmos.enes.org>) initiative, a community effort has been initiated to carry out such simulations. The newly developed version of the COSMOS model consists of the general circulation models ECHAM5 (atmosphere) and MPIOM (ocean) and includes the land vegetation module JSBACH and the ocean biogeochemistry module HAMOCC2. The model is run with interactive carbon cycle. New reconstructions of solar and volcanic variability and for land cover changes are applied as external forcing. The volcanic forcing is applied not only in terms of optical thickness, but also in terms of the effective particle radius. Here we report on the current status of the project and the planned analyzes and sensitivity studies