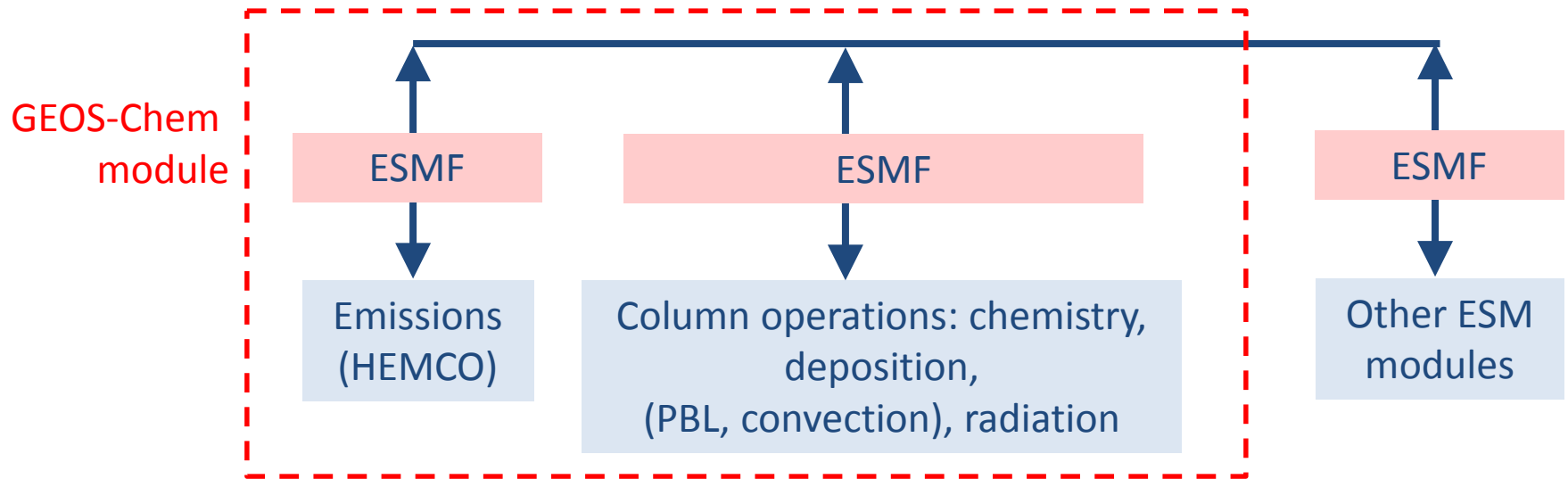


# GEOS-Chem as chemical module for Earth System Models

- GEOS-Chem code consisting of HEMCO emissions and grid-independent chemistry operating on vertical columns can now be interfaced through ESMF to any ESM and this is presently used in the NASA GEOS ESM and DAS
- GEOS-Chem delivers chemical/aerosol concentration updates for troposphere+stratosphere, and couples to external ESM code for atmospheric dynamics and transport, ocean processes, terrestrial processes, etc.
- GEOS-Chem chemical module uses exactly the same code as the stand-alone GEOS-Chem chemical transport model used and developed by a community of over 100 groups worldwide
- In this manner, the GEOS-Chem module is automatically and continuously updated to the latest referenced GEOS-Chem version: it remains state-of-science in perpetuity



M.S. Long, R. Yantosca, J. E. Nielsen, C.A. Keller, A. da Silva, M.P. Sulprizio, S. Pawson, D. J. Jacob, Geosci. Model. Dev., 8, 595-602, 2015.

