

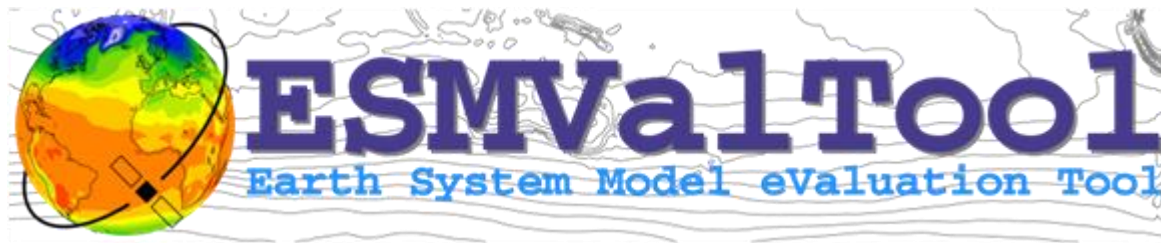
Adding PRIMAVERA metrics to ESMValTool

Work Package 1

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BSC

- Development of diagnostic and metrics for analysing PRIMAVERA simulations
- Add diagnostic and metrics from PRIMAVERA to the ESMValTool framework
- ESMValTool is also developed in CRESCENDO, APPLICATE and C3S-Magic projects, among others



ESMValTool is a community diagnostics and performance metrics tool for the evaluation of Earth System Models (ESMs).

Allows for routine comparison of single or multiple models, either against predecessor versions or against observations.

ESMValTool will be one of the main tools for analysing CMIP6 data.

ESMValTool 2.0

Version 1.1 (current) has performance problems (high RAM and CPU consumption).

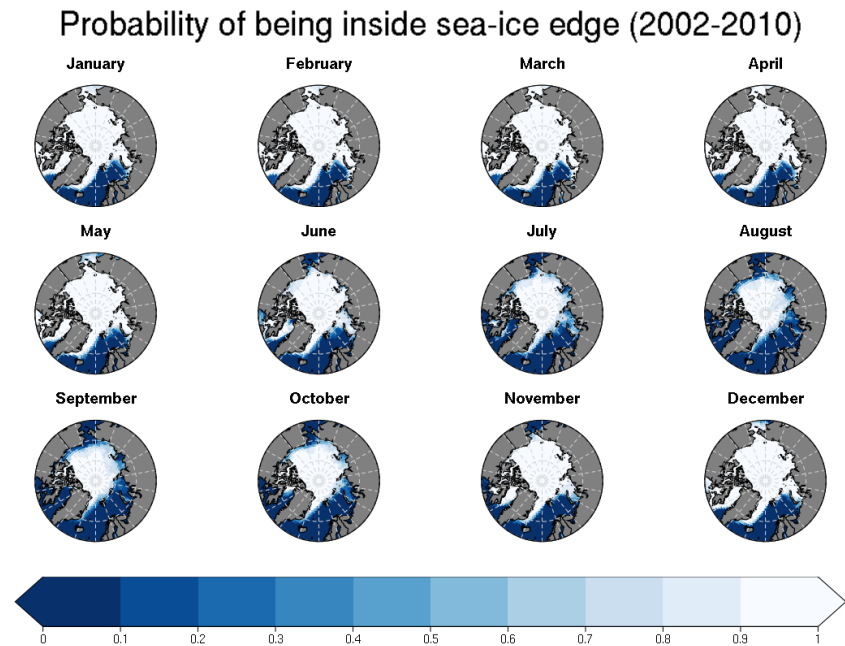
To solve this, a full rework of its preprocessing step is being done.

Version 2.0 is working now, but is not stable yet: development is ongoing and everything is subject to change

Diagnostics in ESMValToll 2.0

A couple of diagnostics has already been added to the new version:

- Sea-ice negative feedback (Python)
- Sea-ice edge (R)



What to expect in the future

- ESMValTool 2.0 becoming stable in the next few months
- A few more metrics will be added until we achieve a representative set to test the tool
- After that, ESMValTool performance with PRIMAVERA data will be evaluated
 - If it is good enough, metrics integration will continue
 - If not, metrics integration will be stopped and all the efforts will be spend in improving the tool