EMI R&D PROJECT PROGRESS REPORT

All the following mandatory information needs to be provided. The length should *reflect the complexity and duration* of the project.

Reporting year	2026
Project Title:	Improving the Simulation of Orographic Convection with C-LAEF
Computer Project Account:	spatwast
Principal Investigator(s):	Clemens Wastl
Affiliation:	GeoSphere Austria
Name of ECMWF scientist(s) collaborating to the project (if applicable)	…… ……
Start date of the project:	1 June 2026
Expected end date:	31 December 2028

Computer resources allocated/used for the current year and the previous one

(if applicable)

Please answer for all project resources

		Previous year		Current year	
		Allocated	Used	Allocated	Used
High Performance Computing Facility	(units)			10 M	0,32 M
Data storage capacity	(Gbytes)			5.000	0

Summary of project objectives (10 lines max)

The objectives mentioned in our request were GeoSphere Austria's objectives in the AMCoM proposal jointly submitted with Meteo-France to the ANR (France). Since this proposal has since been rejected, we have started to work on a fallback project that has the same overall goal of improving the simulation of moist orographic convection during summer. We will address the representation of some of the processes known to have the greatest impact, as well as the associated uncertainties.

Summary of problems encountered (10 lines max)

None so far

Summary of plans for the continuation of the project (10 lines max)

Experiments will be conducted with the C-LAEF AlpeAdria forecasting system (formerly C-LAEF 1k) with a grid spacing of 1 km and with an upgraded version of AROME with a grid spacing of 500 m. Comprehensive observations collected during the summer EOP of the TEAMx observational campaign will be used to evaluate model performance.

List of publications/reports from the project with complete references

None yet

Summary of results

We began working on the project only a few days before this report was written. Three experiments have been conducted so far with AROME with a 500-m grid spacing and improved physics relative to C-LAEF AlpeAdria.