

2026: Coupled 1-year Roadmap (Jan 2026 - Dec 2026)

Major Goal	Epics	Start Date	Due Date
v3.LR: E3SMv3 standard resolution (~110 km atm, 30 km ocean, 1/2 deg land)			
v3.LR Overview papers	Overview of E3SMv3 Coupled System (Part 2)	Nov. 2025	Mar. 2026
	Overview of E3SMv3 historical LE (large ensemble) (Part 3)	Jan. 2026	June 2026
v3.LR Topical papers	Alternating approach for coupled model spinup	Dec. 2025	May 2026
	Analysis of surface dimming and brightening	Dec. 2025	May 2026
	Response of dust aerosols to climate changes	Dec. 2025	May 2026
	Characterization of Marine Heat Waves in v3.LR	Dec. 2025	May 2026
	Assessment of stratosphere and QBO in v3.LR simulations	Dec. 2025	May 2026
	Irrigation in E3SMv3.LR	Jan. 2026	July 2026
v3.RRM: E3SMv3 regionally refined (110 → 26 km atm, 1/4 deg land)			
v3.RRM simulation campaign	Finish v3.RRM simulation campaign	Jan. 2026	Apr. 2026
v3.RRM Overview paper	v3.RRM analysis and overview paper	Apr. 2026	July 2026
v3.HR: E3SMv3 high resolution (26 km atm, 18-6 km ocean, 1/4 deg land)			
v3.HR	v3.HR spinup simulation	Nov. 2025	May 2026
	v3.HR simulation campaign	May 2026	Dec 2026
	Collaborate on AI v3.HR emulator	July 2026	Dec 2026
	v3.HR physical model overview paper based on HighResMIP2	Sep. 2026	Dec 2026
	Analysis papers	Sep. 2026	Dec 2026
v4 development: E3SMv4 (13 km EAMxx atmosphere, 18-6 km OMEGA ocean, unified ocean-land mesh)			

v4 development	<ul style="list-style-type: none"> • Initial coupling of ne256 EAMxx with v3.HR land/ocean/seaice • Performance optimization • Debugging • Tuning • Coupled evaluation • Ocean evaluation • Sea-ice evaluation • New feature integration and testing 	Jan. 2026	on-going effort
<p>Timelines for integration and testing of component features below depend on the respective deliverables</p> <p>Current start times based on projected delivery times</p>			
v4 new feature integration and testing	Coupled tests with unified land ocean mesh .	Starting no later June 2026 .	
	Incorporate MOAB as coupler.	Starting no later July 2026 .	
	Incorporate full feature EAMxx (ZM/GWD, ...).	Starting no later August 2026 .	
	Replace MPAS-O ocean model with OMEGA . Plus necessary changes for sea ice.	Starting no later August 2026 .	
	Add dynamic lake model to solve negative run-off issues.	Starting no later September 2026 .	
	Updated sea-ice model .	Starting no later September 2026 .	
	Incorporate MALI (GrIS).	Starting no later October 2026 .	
	Replace ELMv3 with full feature ELMv4 .	Starting no later November 2026 .	
	Tune and debug	Finalize entire model	