

Project Plan / Gantt Chart

Duration: 3 months (October - December 2026) | Total cost: GBP 50,000

			October 2026				November 2026					December 2026			
WP	Task	Cost	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13
WP1	Formalise Lyapunov energy functions														
	Prove bounded energy convergence														
	Empirical stability tests (10 profiles)														
	100-hour continuous operation test														
	M1: Convergence proofs complete	GBP 16,000					M								
WP2	Build 100K evaluation corpus														
	Implement baseline benchmarks														
	Run benchmarks at 1K/10K/50K/100K														
	30-day degradation simulation														
	Statistical analysis (30 runs/baseline)														
	M2: Benchmark report complete	GBP 18,000									M				
WP3	Design shared memory architecture														
	Conflict resolution simulation														
	Phase 2 technical specification														
	Partner engagement outreach														
	M3: Multi-agent spec complete	GBP 12,000												M	

Hippo: Biologically-Inspired Memory Architecture for Foundation Model Agents

WP4	Progress reporting														
	Financial management														
	Final report to Innovate UK	GBP 4,000													

Key Milestones and Deliverables

ID	When	Milestone	Success Criteria
M1	Week 5 (end Oct)	Convergence proofs complete	Lyapunov stability proofs verified; all 10 workload profiles converge; 100hr test passed
M2	Week 9 (end Nov)	Benchmark report complete	MRR > 0.70, NDCG > 0.75 at 100K entries; statistical significance across 30 runs; degradation < 5%
M3	Week 12 (mid Dec)	Multi-agent specification complete	Architecture document finalised; conflict resolution simulated; 2+ potential partners engaged
M4	Week 13 (end Dec)	Final report submitted	All deliverables compiled; Innovate UK report submitted; Phase 2 consortium proposal drafted

Dependencies

- WP2 depends on WP1: convergence analysis may identify parameter adjustments affecting benchmark configuration.
- WP3 depends on WP2: benchmark results inform the multi-agent scaling architecture design.
- WP4 runs throughout all three months. Partner engagement (WP3) is independent of technical work.
- Critical path: WP1 (M1) -> WP2 (M2) -> WP3 (M3) -> Final report (M4).