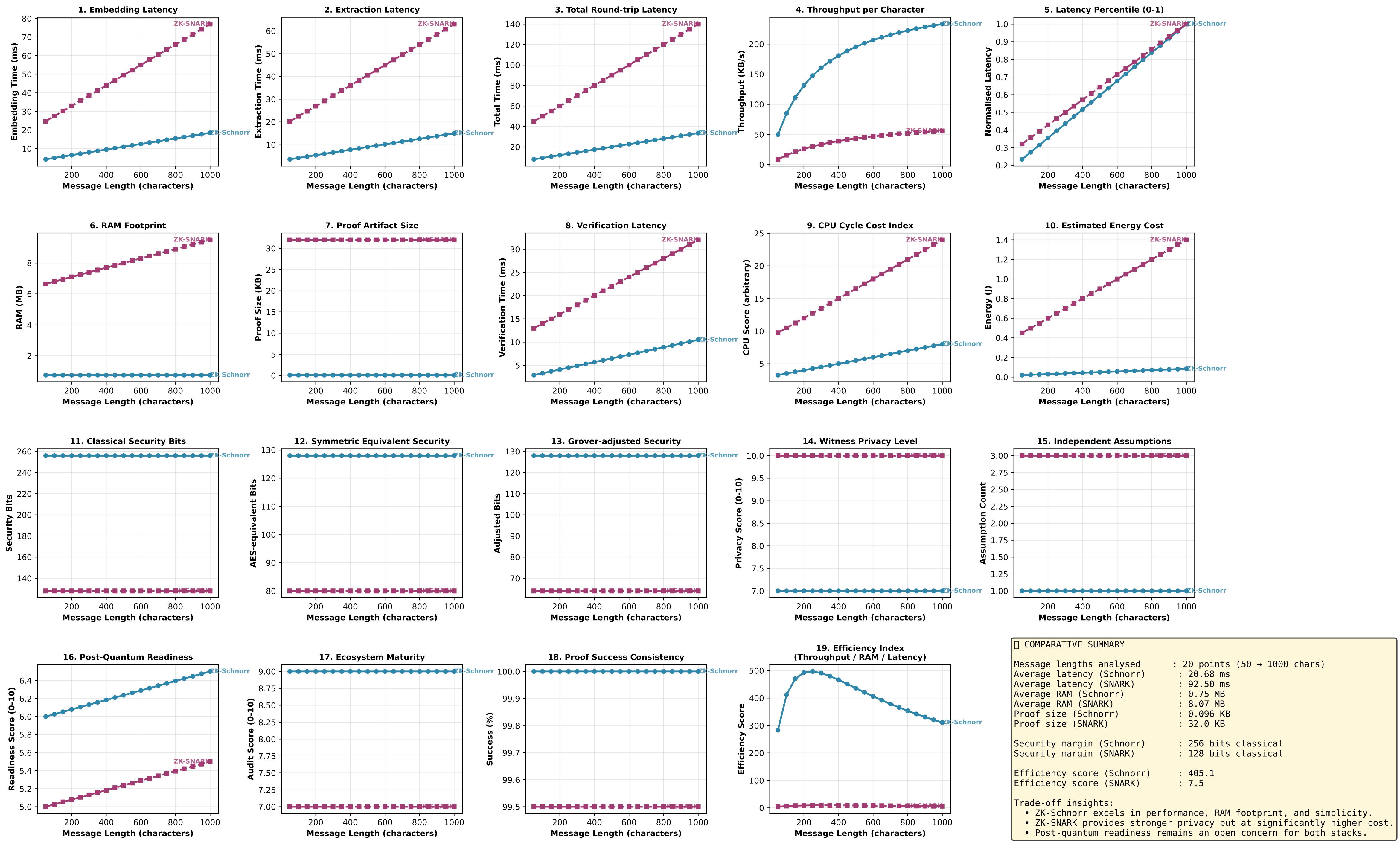


ZK-Schnorr vs ZK-SNARK: Performance, Cost, and Security Trade-offs  
20 comparative points · Generated 20251016\_144135



COMPARATIVE SUMMARY	
Message lengths analysed	: 20 points (50 → 1000 chars)
Average latency (Schnorr)	: 20.68 ms
Average latency (SNARK)	: 92.50 ms
Average RAM (Schnorr)	: 0.75 MB
Average RAM (SNARK)	: 8.07 MB
Proof size (Schnorr)	: 0.096 KB
Proof size (SNARK)	: 32.0 KB
Security margin (Schnorr)	: 256 bits classical
Security margin (SNARK)	: 128 bits classical
Efficiency score (Schnorr)	: 405.1
Efficiency score (SNARK)	: 7.5
Trade-off insights:	
• ZK-Schnorr excels in performance, RAM footprint, and simplicity.	
• ZK-SNARK provides stronger privacy but at significantly higher cost.	
• Post-quantum readiness remains an open concern for both stacks.	

—●— ZK-Schnorr    —■— ZK-SNARK