Partner search

Date (17-06-26)

- **Relevant topic(s) in work programme**

HORIZON-CL3-2026-02-CS-ECCC-01: "Approaches and tools for security in software and hardware development and assessment**"**

- **Quick description of the project concept**

TRUST-EDGE — Full-Stack Security-by-Design for Sovereign SASE Edge Platforms

Objectives

TRUST-EDGE will develop an integrated, European-sovereign security framework for SASE edge platforms on production-grade Ekinops routers, addressing HORIZON-CL3-2026-02-CS-ECCC-01 (software supply chain security and PQC on edge hardware). Led by Ekinops SA (France), 36 months, EUR 3–4M. Five objectives:

(O1) security-by-design SDLC, SBOM/provenance and PQC-aware updates for SASE stacks;
(O2) unified validation toolchain combining formal verification and AI-assisted testing;
(O3) PQC migration across the HSM-to-edge trust chain (NIST/ETSI hybrid schemes);
(O4) PQC-ready hybrid IPsec and TLS for SD-WAN;
(O5) operator-validated demonstrators aligned with CRA, NIS2 and EU certification, strengthening European strategic autonomy in edge networking cybersecurity.

Activities

Research spans six work packages over 36 months around three pillars:

- HSM-to-edge PQC compliance;
- PQC-ready IPsec/TLS;
- resilient firmware and software supply chain security.

WP1 — project management, stakeholder requirements, CRA/NIS2 and EU certification alignment.
WP2 — cryptographic inventory, HSM PQC signing architecture, edge verification prototypes, five-year compliance roadmap.
WP3 — hybrid ML-KEM IPsec and TLS for SD-WAN tunnels and management planes, performance benchmarking, mixed-fleet interoperability, operator pilot validation.
WP4 — security-by-design SDLC, SBOM/provenance, AI-augmented vulnerability triage, secure attestable OTA updates, formal verification of critical firmware modules.
WP5 — integration, three production-grade demonstrators, open methodologies, ETSI/IETF contributions and exploitation.

Partners already involved

• Ekinops SA (France) — coordinator candidate: European edge router design and manufacturing (Massy), unified OneOS6 platform, single-vendor SASE portfolio under Bridge plan (SD-WAN, SSE, U-ZTNA), HSM-centric signing and provisioning, ISO 27001-certified key management, operator relationships for realistic pilot validation.

For end-user validation (European operator), Ekinops will seek a partner among its existing client base to validate PQC IPsec/TLS and SD-WAN/SASE migration scenarios in operational environments.

Partners requested

We are actively seeking partners from academic research — universities and public research institutes — to complement our industrial capabilities:

• Formal verification and security-by-design methodologies (WP4 lead support)
• Post-quantum cryptography and hybrid scheme implementation (WP2–WP3)
• AI-driven security testing and vulnerability discovery (WP4)
• Hardware security assessment and certification methodology

Optional: certification or standardisation contributor (ETSI, IETF, ENISA).

Consortium building through Q2 2026; submission deadline 15 September 2026. Contact: brice.tetu@ekinops.com

- **Description of the expertise requested/proposed (up to 1000 characters)**

Ekinops proposes coordinator/WP leadership on PQC migration, edge cryptographic implementations and SASE software supply chain security. We design and manufacture European edge routers (Massy, France), develop OneOS6 and a converging single-vendor SASE stack (SD-WAN, SSE, universal ZTNA) under our Bridge plan. Security is governed by an HSM-centric model: boot/recovery images, OneOS6 releases and device certificates are centrally signed before staging. We offer production platforms for validating hybrid PQC IPsec/IKE and TLS, crypto-agility, throughput benchmarking on real hardware, and operator-scale SD-WAN pilots. We seek academic research partners — universities and research institutes — for formal verification, PQC schemes, AI security testing, and hardware security assessment. For end-user validation, Ekinops will engage a European operator from its existing client base.

- **Keywords describing the expertise requested/proposed (up to 10 words)**

SASE supply chain PQC IPsec TLS formal verification HSM edge SD-WAN

Organisation information

Organisation and country: Ekinops SA — France
Type of organisation: ☑ Enterprise □ SME □ Academic □ Research institute □ Public Body □ Other: Association
Former participation in European projects? ☑ Yes □ No 5GENESIS, UNICORE, BATS, QuantumShield (grant agreement processing)
Web address: https://www.ekinops.com
Description of the organisation: Ekinops is a leading European supplier of telecommunications and network security solutions, specialising in optical transport, edge connectivity and SASE (SD-WAN, SSE, ZTNA). The company designs and manufactures edge routers in France, develops the unified OneOS6 platform, and serves operators and enterprises in 70+ countries. Recent acquisitions (Olfeo, Chimere) reinforce its European sovereign cybersecurity positioning. ISO 27001-certified key management and secure boot/signed firmware practices underpin TRUST-EDGE.

Contact details

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