



EXPRESSION OF INTEREST: HORIZON EUROPE PILLAR II COLLABORATION

Opportunity Summary: Applied EQ Services (an eligible Australian Associated Country SME partner) and Monash Business School offer Tier 1 Consortium Coordinators a dedicated, modular, zero-disruption Horizon Europe Pillar II Work Package. As the global defense and industrial sectors transition into an AI-driven "10x project economy," complex multi-partner engineering programs remain highly vulnerable to critical project management performance failures and "Status Theatre" - where lagging project controls mask operational friction until delivery timelines fail. This joint initiative integrates our privacy-first platform - EQ SCOTi™ - to passively quantify real-time team "Friction Tax" (

$T_f = \sum (V_d \cdot \delta_{sync})$) across active operational workflows without raw text storage or employee surveillance. By benchmarking real-time, metadata-driven interaction patterns directly against established psychometric baselines (such as Bar-On EQ-i 2.0 and MSCEIT), the Work Package validates a continuous, non-invasive alternative to static surveys. This optimizes human-AI teamwork, prevents uncritical AI "rubber-stamping," and provides early warning indicators of operational strain (including "Radio Silence" and the "Lone Wolf Effect") to de-risk multi-partner project delivery - advancing the platform from TRL 4/5 pilot validation to TRL 6/7 field trials inside host industrial testbeds.

1. High-Stakes Operational Validation in Safety-Critical Environments

Large-scale operations, commercial aerospace programs, and complex engineering consortia rely heavily on dynamic group emotional intelligence (EQ) and mutual trust to maintain operational velocity. However, these environments are structurally vulnerable to extreme execution delays, communication silos, and "Status Theatre" (or "Phantom Green" reporting)—where project milestones appear completely healthy on lagging financial spreadsheets until delivery timelines catastrophically fail.

This research initiative leverages the rigid hierarchies and extreme task pressures of high-stress civilian operations as a real-world testing ground. By collaborating with the civilian aviation, emergency transport, and human factors divisions of global Tier 1 partners, the project validates and calibrates continuous, non-invasive team telemetry under operational strain.

By building a shared, evidence-based approach across UK, Australian, and European research partners, this project de-risks multi-partner program execution across three primary areas:

- **Tracking Real-Time Communication & Workload:** Tracking team communication and mental strain in real time - showing how well distributed teams coordinate and work alongside AI tools, without invading employee privacy or monitoring individuals.

- **Measuring Hidden Team Friction:** Calculates hidden team drag and delays using a clear mathematical formula $[T_f = \sum (V_d \cdot \delta_{sync})]$ exposing communication bottlenecks and project blocks weeks before deadlines are missed.
- **Spotting Early Warning Signs of Team Strain:** Spots early signs of team distress - such as sudden silence in communications ('Radio Silence') or team members working in isolation ('Lone Wolf Effect') - allowing teams to self-correct and leaders to act preventing project failures and protecting staff from burnout.

2. The 'Group Fitbit' Utility: Zero-Persistence Privacy Architecture

High-stress civilian and aerospace environments demand the most stringent security and compliance standards. To overcome the privacy and data-leakage anxieties that typically block AI analytics in high-security environments, EQ SCOTi™ is engineered as an agentless, privacy-by-design Small Language Model (SLM). Rather than reading, parsing, or storing raw conversational text, our platform operates strictly on low-level structural metadata and syntax style markers. It provides high-level group dashboards while driving organic team alignment via automated, private, and localized "Alignment Nudges" directly to team members.

To ensure seamless integration into high-security Tier 1 environments, this Horizon Europe Work Package includes the co-development and verification of the **Pathway 3 Zero-Persistence Architecture** (advancing the platform to TRL 6/7):

- **Hardware-Enforced Ephemeral RAM Enclaves:** Engineering on-the-fly feature extraction inside volatile memory enclaves so raw text is never written to physical storage.
- **Cryptographic Identity Hashing:** Stripping personal identifying data immediately at ingestion and replacing identities with one-way cryptographically hashed tokens.
- **Volatile Memory Purge Certificates:** Generating cryptographically signed erasure logs upon each analytical cycle, mathematically proving data destruction for absolute GDPR and sovereign compliance.

3. Horizon Europe Pillar II Specific Call Alignment

The EQ SCOTi™ Work Package provides immediate strategic value across target 2026–2027 Pillar II Work Programmes. Structured for rapid integration into host workflows, the module satisfies European Commission requirements for user-industry operational testing:

Work Programme & Call ID	Strategic EU Focus	EQ SCOTi™ Work Package Contribution
Cluster 4: Digital, Industry & Space Topic: HORIZON-CL4-2027-04-DIGITAL-EMERGING-04	Challenge-Driven AI Innovation in Aerospace: Funding practical AI tools for the aerospace sector to solve real operational challenges and streamline complex program delivery.	De-Risks Multi-Site Program Delivery: Functions as a passive team alignment utility across multi-partner consortia. Calculates real-time Friction Tax (T_f) and identifies communication silos or artificial status reporting weeks before milestones are impacted.
Cluster 4: Digital, Industry & Space	Human/AI Collaboration for the Workforce of the Future: Developing natural interaction models and studying cognitive	Automating AI Readiness & Teaming Frameworks: Evaluates how operational teams adapt to AI integration. By tracking subtle linguistic markers (such as hedging frequency and pronominal shifts), the platform provides

Work Programme & Call ID	Strategic EU Focus	EQ SCOTi™ Work Package Contribution
Topic: HORIZON-CL4-2027-02-DIGITAL-EMERGING-52	ergonomics to support Human-AI teamwork and control complexity.	continuous data on team trust, cognitive load, and psychological safety.
Cluster 1: Health Destination: Living & Working Environment	Upstream Psychosocial Occupational Health: Prioritising real-world evidence and digital tools to identify, understand, and reduce upstream occupational and social risk factors that trigger chronic stress and mental burnout.	Continuous Psychosocial Risk Telemetry: Replaces subjective, periodic surveys with continuous, non-invasive group behavioral metrics. Quantifiably maps team emotional capability and tracks the psychosocial impact of organizational workflow design to reduce occupational strain and mitigate burnout.

4. SME Eligibility & Consortium Integration

Under Australia’s formal association with Horizon Europe Pillar II, Applied EQ Services participates as a fully eligible Associated Country SME beneficiary. This status enables our organization to receive direct European Commission funding, lead dedicated Work Packages, and contribute core IP without adding administrative complexity for the Consortium Coordinator. Operating alongside Monash Business School, we deliver a low-friction, audit-compliant partnership that strengthens the consortium's international research footprint while safeguarding local IP governance.

CONSORTIUM COLLABORATION & MATCHMAKING INQUIRIES

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