

Hungarian med-tech provider seeks IT and AI expertise for sensor integration and data analytics under supplier or investment agreements.

Summary

Profile type

Business request

Company's country

Hungary

POD reference

BRHU20260709012

Profile status

PUBLISHED

Type of partnership

**Investment agreement
Supplier agreement**

Targeted countries

• All countries

Contact Person

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Term of validity

**13 Jul 2026
13 Jul 2027**

Last update

13 Jul 2026

General Information

Short summary

A Hungarian med-tech company specializing in physiological diagnostics seeks technology partners in the IT and AI sectors. The company requires expertise in sensor integration and data analytics to optimize its human performance management tool. Partners are sought for technical development and testing under supplier or investment agreements to enhance diagnostic efficiency and operational standards.

Full description

This Hungarian med-tech specialist operates in the research and development of physiological diagnostics, with a heritage in aviation and space industry safety standards. The company provides data-driven management of human performance, focusing on fatigue, stress, and neurological readiness in high-stakes environments.

The company is seeking to enhance its existing diagnostic platform by integrating advanced IoT sensors and AI-driven data analytics. The goal of this international partnership is to transition the current technology from pilot validation into a fully integrated, scalable operational tool capable of real-time efficiency monitoring.

The cooperation is envisaged in two phases:

- Phase 1 (Development): Partners will provide specialized hardware (sensors) or software components to improve data collection stability and interpretive accuracy.
- Phase 2 (Integration): Technical integration of these components into the company's existing IT infrastructure to support a target 10–20% improvement in organizational diagnostic efficiency.

A Business Request was selected because the company requires external technological expertise that is not currently available in-house to meet industry-specific standards in aviation and defence. Investment agreements are considered to support long-term strategic scaling and joint R&D activities.

Advantages and innovations

Aviation-Grade Scientific Standards: The underlying technology is derived from Research and Development (R&D) within the aviation and space industries, ensuring a methodology characterized by high precision and zero tolerance for error.

Objective Instrument-Based Analytics: Unlike industry-standard performance management that relies on subjective self-reporting, this system uses instrument-based physiological measurements to provide auditable and measurable data.

Early-Stage Predictive Detection: The tool is capable of identifying physiological and psychological warning signs, such as neurological overload or "internal resignation", well before visible performance decline or absenteeism occurs.

Cross-Sector Validation: The core diagnostic method is highly adaptable and has already been validated in diverse high-performance environments, including elite sports, defence, and commercial aviation.

Actionable Decision Support: The system does not merely collect raw data; it translates complex signals into structured insights that directly support operational decisions regarding personnel allocation, recovery planning, and workload distribution.

Strategic Integration Potential: The platform is designed for high scalability, providing a robust framework into which new AI algorithms and sensor hardware can be integrated to achieve a measurable competitive advantage.

Technical specification or expertise sought

The sought technology partners must demonstrate proven expertise in developing Artificial Intelligence (AI) and Machine Learning (ML) algorithms specifically tailored for the interpretation of non-linear physiological signals.

Expertise in processing complex biometric data, such as heart rate variability (HRV) or neurological readiness indicators, is required to ensure the system can distinguish between routine fatigue and critical cognitive overload.

The requested hardware components must be non-invasive, high-precision IoT sensors capable of maintaining stable data collection in high-performance environments (e.g., flight decks or tactical field drills). Key technical requirements include:

- **Data Integrity:** High sampling rates and low signal-to-noise ratios suitable for medical-grade analytics.
- **Connectivity:** Robust WiFi or Bluetooth integration capable of real-time data transmission to the central diagnostic platform.
- **Durability:** Hardware must be resilient enough to operate under varying professional conditions without frequent recalibration.

Software solutions must offer robust API capabilities to facilitate seamless integration with existing enterprise infrastructures, specifically Human Resources (HR) and operational scheduling systems. The partner's technology should support automated data flow to enhance real-time decision-support efficiency.

Due to the high-stakes sectors involved, all requested solutions must be strictly GDPR-compliant regarding biometric data handling. Additionally, technology must meet the auditability requirements and cybersecurity standards of the aviation and defence industries.

To avoid irrelevant Expressions of Interest (EoIs), it is noted that the client is not seeking general wellness applications, standard commercial fitness trackers, or HR consultancy services that lack instrument-based physiological measurement and data-driven diagnostic capabilities.

Stage of development

Available for demonstration

IPR Status

No IPR applied

IPR Notes

Sustainable Development goals

- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 8: Decent Work and Economic Growth**
- **Goal 3: Good Health and Well-being**

Partner Sought

Expected role of the partner

The company is seeking to collaborate with technology-driven SMEs (SME <10 or SME 11-49) and specialised R&D institutions. Ideal partners are those that operate at the cutting edge of medical technology integration, biometrics, or high-stakes industrial IT systems.

The sought partners should possess a proven track record in the following fields:

- **Sensor Hardware Development:** Expertise in manufacturing or supplying non-invasive, medical-grade IoT sensors that can maintain data integrity in demanding environments such as aviation flight decks or sports training facilities.
- **Data Science and AI:** Proven capabilities in designing Artificial Intelligence and Machine Learning algorithms specifically for the interpretation of non-linear physiological signals (e.g., heart rate variability, cognitive load indicators).
- **Systems Integration:** Experience in developing robust API infrastructures to enable seamless interoperability between specialised diagnostic tools and enterprise HR or scheduling software.

The partner's responsibilities are defined by the envisaged cooperation framework:

Under a Supplier Agreement:

Technical Provision: The partner is expected to supply the necessary hardware (sensors) or software components (AI modules) required to enhance PHAPA's diagnostic platform.

Integration Support: The provider must offer technical guidance and support during the integration and testing phases to ensure that all components meet the required industry-specific standards for auditability and safety.
Regulatory Compliance: The partner is responsible for ensuring that all provided technology is strictly GDPR-compliant regarding the handling of sensitive biometric data.

Under an Investment Agreement:

Strategic Co-development: The partner is expected to act as a strategic enabler, providing both capital and specialised technical resources to support the long-term scaling of the diagnostic network.

Joint R&D Activities: The investor will collaborate on continuous Research and Development to adapt the technology to new regional regulations or industrial requirements, potentially establishing a new legal entity for global market expansion.

Type of partnership

Investment agreement

Supplier agreement

Type and size of the partner

• **SME <=10**

• **SME 11-49**

• **R&D Institution**

• **University**

• **SME 50 - 249**

Dissemination

Technology keywords

Market keywords

- **05004004 - Medical instruments**
- **05007007 - Other medical/health related (not elsewhere classified)**
- **05004001 - Electromedical and medical equipment**
- **03007003 - Other analytical and scientific instrumentation**
- **03007002 - Other measuring devices**

Targeted countries

Sector groups involved

- **All countries**

- **Digital**
- **Health**
- **Electronics**