Passed 1st stage SAFERA proposal seeks partners for AI & XR risk modelling

Summary

Profile type	Company's country	POD reference
Research & Development Request	**Spain**	**RDRES20260608007**

Profile status	Type of partnership	Targeted countries
PUBLISHED	**Research and development cooperation agreement**	• **Italy** • **Germany** • **France** • **Finland**

Contact Person	Term of validity	Last update
Enrico FRANZIN	**8 Jun 2026** **8 Jun 2027**	**12 Jun 2026**

General Information

Short summary

Spanish SME urgently seeks 1–2 partners to join a SAF€RA Joint Call 2026 proposal (Topic 3) already selected in first stage. The project will co-develop an AI system transforming XR behavioural data into dynamic, explainable risk indicators for industrial safety. Partners with expertise in explainable AI, behavioural analytics or occupational safety validation are invited to join a high-potential proposal (deadline: 30 June 2026). Fast-track entry, near-submission consortium..

Full description

This project introduces a novel approach to occupational risk assessment by combining AI with behavioural data captured in extended reality (XR) simulations.

The proposed R&D project aims to develop an artificial intelligence-based system able to translate high-resolution behavioural data into dynamic, individual and interpretable risk indicators for occupational and industrial safety.

This proposal offers a unique opportunity to join a high-potential consortium:
- Already selected in the first stage of the SAF€RA call (reduced risk)
- Access to unique high-resolution behavioural datasets from XR simulations
- Opportunity to co-develop a novel approach at the intersection of AI, safety and human behaviour
- Strong positioning for future Horizon Europe and industrial applications
- Fast integration into a nearly complete consortium

Urgent partner search due to upcoming full proposal deadline (30 June 2026)

Unlike traditional approaches, the project uses behavioural data as a core input for risk assessment, enabling dynamic and individualised risk modelling.

Occupational and industrial risk assessment is still largely based on historical accident statistics, expert judgement and static evaluations. While valuable, these approaches often fail to capture how individuals actually behave in critical situations and how risk evolves dynamically during training or simulated operational scenarios.

The project integrates three complementary data layers:
- sectoral accident statistics and historical safety data
- existing occupational and industrial risk assessments
- behavioural data generated during immersive XR simulations

The technical approach combines machine learning, explainable artificial intelligence and uncertainty quantification to provide transparent, auditable and reliable outputs suitable for safety-critical environments.

The system will generate dynamic individual risk indicators, support adaptive training logic, and improve decision-making by safety managers, trainers and industrial prevention teams.

The Spanish SME involved in the proposal provides an advanced extended reality platform and access to structured behavioural datasets generated in immersive simulations.

The proposal has successfully passed the first stage of the SAF€RA Joint Call 2026 and now requires at least one international partner from a participating SAF€RA country for the full proposal.

Main partner roles sought:

Task 2 – Behavioural analytics and explainable AI (priority profile)
The partner will co-develop the analytical core of the system, including:
- processing heterogeneous behavioural and safety datasets
- developing machine learning models
- applying explainable AI methods
- integrating uncertainty quantification approaches
- supporting risk modelling and validation

Task 3 – Occupational safety, adaptive training and validation
The partner will contribute to:
- translating model outputs into occupational risk assessment logic
- defining adaptive training and decision-support mechanisms
- ensuring alignment with safety frameworks and standards
- validating results in real or realistic industrial environments

Advantages and innovations

The project proposes a shift from static and general risk assessment approaches towards dynamic, individualised and data-driven occupational safety assessment. Key innovations include:

* use of high-resolution behavioural data captured in immersive extended reality simulations;
* integration of behavioural, historical and risk assessment data into a common analytical framework;
* application of explainable artificial intelligence to make risk indicators understandable and auditable;
* use of uncertainty quantification to increase reliability in safety-critical decision-making;
* potential generation of personalised training pathways based on individual behavioural risk patterns;
* improved evidence base for occupational safety professionals, trainers and industrial risk managers.

The expected impact is a more accurate, transparent and actionable approach to occupational and industrial risk assessment, with potential benefits for worker safety, prevention planning, industrial training and risk-based decision-making.

Technical specification or expertise sought

The project is seeking partners with one or more of the following capabilities:

PRIORITY PROFILE - Behavioural analytics and explainable artificial intelligence

* machine learning applied to behavioural, sensor, simulation or heterogeneous datasets;
* explainable artificial intelligence methods;
* uncertainty quantification, probabilistic modelling or confidence-aware artificial intelligence;
* risk modelling and predictive analytics;
* experience in European collaborative R&D projects;
* ability to work with behavioural data generated in immersive or simulated environments.

Complementary profile - Occupational safety, adaptive training and industrial validation

* occupational safety and health, industrial safety or process safety expertise;
* experience with occupational risk assessment frameworks, prevention systems or safety management standards;
* knowledge of regulatory or standardisation aspects related to occupational safety and health;
* capacity to define adaptive training logic or decision-support rules;
* access to, or experience with, industrial validation environments;
* ability to transfer research results into practical tools for safety managers, trainers or prevention teams.

The ideal partner may be a university, research and technology organisation, applied research centre, industrial safety organisation, SME or larger company with a strong R&D track record.

Stage of development

Under development

Sustainable Development goals

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

IPR Status

IPR Notes

Partner Sought

Expected role of the partner

The proposal is looking for one or more international partners to join the consortium under a research and development cooperation agreement.

PRIORITY PARTNER ROLE: Behavioural analytics and explainable artificial intelligence

The partner will contribute to the development of the artificial intelligence layer of the system. The expected role may include:

* designing data processing and modelling pipelines for behavioural data captured in extended reality simulations;
* integrating behavioural data with sectoral accident statistics and existing risk assessment information;
* developing machine learning models to identify risk-relevant behavioural patterns;
* applying explainable artificial intelligence techniques to make model outputs understandable for safety professionals;
* incorporating uncertainty quantification or confidence indicators into the models;
* supporting technical validation of the models and interpretation of results.

Suitable partners include universities, research and technology organisations, applied artificial intelligence research groups, SMEs or companies with proven expertise in explainable artificial intelligence, machine learning, risk modelling or data analytics.

Complementary partner role: Occupational safety, adaptive training and industrial validation

The partner will contribute to the transformation of model outputs into practical occupational safety and industrial risk assessment logic. The expected role may include:

* defining how dynamic individual risk indicators can be interpreted in occupational safety contexts;
* contributing knowledge of occupational safety and health frameworks, standards and industrial risk assessment methods;
* supporting the design of adaptive training pathways or decision-support logic;
* validating the proposed approach with industrial use cases, safety professionals or realistic operational scenarios;
* assessing the transferability of project results to industrial environments.

Suitable partners include occupational safety research organisations, industrial safety experts, prevention institutes, companies with safety-critical operations, applied research centres or organisations able to validate results in real or realistic industrial contexts.

COUNTRY-SPECIFIC FUNDING AND ELEGIBILITY

* ITALY- Italian Workers' Compensation Authority (INAIL): Italian universities or recognized Italian Research Institutes
* FRANCE-Institut National de l'environnement industriel et des risques (INERIS): Person-months as in-kind funding for INERIS researchers.
* GERMANY-Bundesanstalt für Materialforschung und prüfung (BAM): Person-month funding for a PhD candidate or Postdoc based in BAM (24 person-months)
* FINLAND-Finnish Work Environment Fund (FWEF): Research organizations and companies whose research may improve Finnish working life.

Type of partnership

Research and development cooperation agreement

Type and size of the partner

- **SME <=10**
- **R&D Institution**
- **Other**
- **SME 11-49**
- **Big company**
- **University**
- **SME 50 - 249**

Call Details

Framework program

Specific actions

Call title and identifier

SAF€RA 2026 "Innovative solutions and technologies to improve safety of workers and emergency responders" -10th joint call SAF€RA

Topic 3: AI, big data and numerical modelling for risk assessment

Submission and evaluation scheme

Two-stage submission. The proposal passed the first stage as a single-nation proposal. The full proposal is now being prepared and requires at least one eligible international partner from a SAF€RA participating country.

Anticipated project budget

Coordinator required

No

Deadline for EoI

19 Jun 2026

Deadline of the call

30 Jun 2026

Project duration in weeks

104

Web link to the call

https://www.safera.eu/joint-calls/10thjointcall

Project title and acronym

AI-based dynamic occupational risk assessment using behavioural data from extended reality simulations.

Dissemination

Technology keywords

- **01005006 - Visualisation, Virtual Reality**
- **11002 - Education and Training**
- **01004017 - Work Hygiene and Safety Management**
- **01003003 - Artificial Intelligence (AI)**
- **01004016 - Analysis Risk Management**

Market keywords

- **02006004 - Data processing, analysis and input services**
- **02006005 - Big data management**
- **02007007 - Applications software**
- **02003 - Specialised Turnkey Systems**

Targeted countries

- **Italy**
- **Germany**
- **France**
- **Finland**

Sector groups involved

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