

A Turkish innovative SME company seeking for miniature optical (infrared) lens & Filter design and development expert (company / institute) partner for a Eureka Eurostars Call 11 March 2026

Summary

Profile type	Company's country	POD reference
Research & Development Request Türkiye		RDRTR20260130004
Profile status	Type of partnership	Targeted countries
PUBLISHED	Research and development cooperation agreement	• World
Contact Person	Term of validity	Last update
<u>Enrico FRANZIN</u>	30 Jan 2026 30 Jan 2027	30 Jan 2026

General Information

Short summary

A Türkiye-based SME active in optical and embedded systems seeks a partner for a Eurostars project to co-develop a compact fire early detection system. The partner is expected to design miniature optical components including lenses, optical filters and integration with IR photo diodes, and emitter elements for the long-range non-contact temperature measurement.

Full description

The R&D project is the design optimization of the miniature IR optical system for long-range thermal measurement achieving a high distance-to-spot area ratio while maintaining a compact form factor suitable for integration into small enclosures. The system must be able to scan across a defined field of view, to detect the direction and location of rising heat, and identify anomalies in a spatial context, not just at a fixed point.

The project is being prepared under the Eurostars Programme, which supports market-oriented R&D cooperation between innovative SMEs and their partners. The applying SME is based in Türkiye and will lead system-level integration and overall project coordination.

The consortium seeks a partner with expertise in optical and sensor technologies to support the development and validation of the system. Specific technical knowledge in compact optical design, thermal sensing, and embedded system integration will be considered an asset.

Estimated timeline:

- Eurostars Call Deadline: 19.03.2026
- Expression of Interest (EoI) Deadline: 19.03.2026
- Project Duration: 24 months

This collaborative effort offers a strong opportunity to bring an efficient, compact, and scalable temperature monitoring solution to areas where traditional systems are not viable or effective.

Advantages and innovations

The planned development focuses on compact optical and sensing solutions designed for efficient, reliable, and low-maintenance thermal monitoring. The expected innovations and technical advantages include:

- Design and optimization of a miniature optical system that supports long-range performance, with a high distance-to-spot ratio, while remaining suitable for integration into small enclosures.
- Spatial detection capability, allowing the identification of rising heat direction and position across a monitored area—not limited to a single fixed point.
- Non-contact measurement, reducing wear, increasing system durability, and enhancing operational safety.
- Use of environmentally friendly materials and a recyclable design to ensure alignment with sustainability principles.

These features aim to increase adaptability, reduce maintenance needs, and provide robust performance in

Technical specification or expertise sought

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Stage of development

Sustainable Development goals

- **Goal 17: Partnerships to achieve the Goal**

IPR Status

IPR Notes

Partner Sought

Expected role of the partner

The client is seeking a R&D partner to support the development of a compact, long-range optical sensing unit for non-contact temperature monitoring applications. The ideal partner(s) should have expertise in the following areas:

Required expertise:

- Infrared (IR) optical system analysis and design, especially in thermal wavelength ranges
- Simulation and modelling of optical elements such as lenses, filters, and light paths for thermal sensing
- Calibration and performance testing methods for IR optical systems, including knowledge of black-body radiation and thermal transfer
- System-level integration of components such as IR lenses, filters, emitters, and photo diodes
- Miniaturized mechanical design for compact integration

Expected contributions include:

- Delivery of optical subsystem prototypes with functional thermal measurement capabilities
- Supporting documentation for test and calibration procedures
- Design reports and integration guides to assist in final product validation and production-readiness

Partners are expected to work in close collaboration with the lead SME during the design, prototyping, testing, and iteration stages.

Type of partnership

Research and development cooperation agreement

Type and size of the partner

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

Call Details

Framework program

Eureka

Profile RDRTR20260130004

Call title and identifier

Eyrek Eurostars Call 11

Submission and evaluation scheme

Anticipated project budget

Coordinator required

No

Deadline for EoI

18 Mar 2026

Deadline of the call

19 Mar 2026

Project duration in weeks

Web link to the call

104

Project title and acronym

Dissemination

Technology keywords

Market keywords

- 08002002 - Industrial measurement and sensing equipment**

Targeted countries

Sector groups involved

- World**