An established Slovak research institute is seeking a representative from the business sector to be partner on a Horizon Europe project

Summary

Profile type	Company's country	POD reference
Research & Development Request	**Slovakia**	**RDRSK20260326018**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Research and development cooperation agreement**	**• All countries**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**26 Mar 2026** **26 Mar 2027**	**26 Mar 2026**

General Information

Short summary

Established Slovak scientific and research institute has created intellectual property within Cluster 4 of Horizon Europe. The solution is in the field of materials development, specifically Quantum dot-based materials. They intend to submit an application for a Horizon Europe project under the call "HORIZON-CL4-2026-01-MAT-PROD-48". The consortium for the project will consist of three EU countries; they are looking for a representative from the business sector. An SME is preferred.

Full description

Slovak scientific and research institute helps scientists and researchers from organizations of institute protect research results and ensure their transfer into practice. Research institute is a partner to scientists in identifying, protecting and commercializing research results that have the potential to be used in practice and contribute to the development of innovations.
Research institute also helps its organizations in addressing all matters related to intellectual property (IP) management – from notification of the creation of new IP by employees of its organizations to the conclusion of agreements with the private sector. Institute assists its organizations or represents them in cooperation with third parties, including the private sector, in cases where any form of IP disposition is involved. For the private sector, institute specifically helps identify opportunities for research and development cooperation with SAS organizations.

Project Overview: ‘Proof of market’ to improve valorisation and commercialisation of Horizon generated R&I results (IA)
Expected Outcome:
Report
• Proof of Market outcomes
Customer Demand/Interest Evidence
system integrators
suppliers
infrastructure players
Problem–Solution Validation
Technical feedback loops with potential buyers
Compatibility with existing standards or roadmaps
Industry endorsements or advisory involvement
• Defined commercialization process
• Assessing potential “end users” of the expected innovation

Institute intend to submit an application for a Horizon Europe project under the call "HORIZON-CL4-2026-01-MAT-PROD-48". The consortium for the project will consist of three EU countries; they are looking for a representative from the business sector. An SME is preferred. The project will involve conducting a Proof of Market for the technology. The application deadline is April 21, 2026.

Advantages and innovations

A class of carbon nanoparticles characterized by significantly higher chemical inertness and biocompatibility than conventional semiconductor quantum dots—namely, carbon quantum dots (CQDs)—has been synthesized. CQDs are an effective source of singlet oxygen, which is produced upon their irradiation with light and disrupts bacterial membranes in a very short time.
Institute has developed hydrophobic CQDs that do not react with fluids in the human body, are non-toxic to living organisms, and exhibit light-controlled biological activity. These 5–15 nm CQDs were subsequently incorporated into polymers used in medicine or for the surface treatment of textiles, windows, walls, and other applications. This resulted in polymer composites with controlled antibacterial activity on durable polymers, which can be successfully used for floor coverings and wall cladding in hospitals, where the antibacterial effect will be controlled by the number of LEDs during working hours.

Technical specification or expertise sought

Stage of development

Available for demonstration

Sustainable Development goals

- **Goal 15: Life on Land**
- **Goal 6: Clean Water and Sanitation**
- **Goal 14: Life Below Water**
- **Goal 7: Affordable and Clean Energy**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 3: Good Health and Well-being**
- **Goal 8: Decent Work and Economic Growth**
- **Goal 12: Responsible Consumption and Production**

IPR Status

IPR granted

IPR Notes

European Patent granted

Partner Sought

Expected role of the partner

Partner in the Horizon Europe project – technology analysis, identification of opportunities for applying the

technology within our own portfolio or on the market, provision of feedback for modifying or further developing the technology to increase its chances of market success, and technology valorisation in accordance with the guidelines of the project coordinator – Slovak research institute, verification of innovation potential, assessing potential “end users” of the expected innovation.

Type of partnership

Research and development cooperation agreement

Type and size of the partner

- **SME <=10**
- **SME 50 - 249**
- **SME 11-49**

Call Details

Framework program

Horizon Europe

Call title and identifier

HORIZON-CL4-2026-01-MAT-PROD-48

Submission and evaluation scheme

Anticipated project budget

Coordinator required

No

Deadline for EoI

13 Apr 2026

Deadline of the call

21 Apr 2026

Project duration in weeks

Web link to the call

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/HORIZON-CL4-2026-01-MAT-PROD-48?order=DESC&pageNumber=1&pageSize=50&sortBy=startDate&keywords=HORIZON-CL4-2026-01-MAT-PROD-48&isExactMatch=true&status=3109450

Project title and acronym

Dissemination

Technology keywords

Market keywords

- **03001001 - Semiconductors**

Targeted countries

- **All countries**

Sector groups involved