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**	**RDRSK20260326016**
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 semiconductors, specifically the production of HEMT transistors. 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

Highly silicon-doped gallium nitride (n++ GaN) layers play a key role in the development of modern high-electron-mobility transistors (HEMTs), which are used in both telecommunications and power electronics.
Free electrons in the n++ GaN layer can effectively shield the transistor channel from unstable surface potentials. This allows us to achieve stable current and reliable operation even under high loads.
Further measurements confirmed that the use of so-called flow modulation epitaxy further increases the concentration of free carriers up to the range of 10^{2} cm ^{3}, which opens up new possibilities for the design of normally-off HEMTs.

Technical specification or expertise sought

Stage of development

Concept stage

Sustainable Development goals

- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 8: Decent Work and Economic Growth**
- **Goal 7: Affordable and Clean Energy**

IPR Status

No IPR applied

IPR Notes

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

Type and size of the partner

Research and development cooperation agreement

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

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

GAN LAYERS FOR EXCELLENCE – GANLE

Dissemination

Technology keywords

Market keywords

- **01003 - Facsimile Transmission**
- **08003006 - Power transmission equipment (including generators & motors)**

Targeted countries

- **All countries**

Sector groups involved