V Lashkaryov Institute of Semiconductor Physics of National Academy of Sciences of Ukraine

~400 researchers, 12 departments, situated in Kyiv,

Our research expertise and facilities:

- Thin-film deposition techniques: magnetron sputtering, thermal evaporation, CVD, spin-coating.
- Optical lithography, pulsed-laser lithography and processing of a wide range of materials;
- Characterization of semiconductors and insulators, both crystalline and amorphous, molecules and composites – structural, optical, electrical properties, surface morphology;
- A big part of equipment is accumulated in the Center of Collective Use (an Equipment Sharing Center)

Our expertise in European and other research projects:

- In total 4 EU projects (Horizon, FP6, FP7)
- 5 NATO and 4 CRDF projects in past 10 years
- Tens of bilateral projects with EU countries.

In addition, our Institute :

- has a license for postgraduate studies (PhD in Applied Physics and Nanomaterials) ;
- issues a Q3 journal “Semiconductor Physics Quantum Electronics & Optoelectronics”;
- the portion of project and third-party funding in the Institute’s budget reached ~50% in 2025 ;
- got the highest category (“A”) in the state evaluation of research institutions.

Project ideas and goals for participation in MSCA and similar calls:

- Increasing the level of expertise of our researchers, primarily PhD students and young researchers, in the following areas/directions:
  - operation of clean-room facilities in the field of development of semiconductor devices, nanomaterial-based sensors and their characterization;
  - development of advanced materials for opto- and microelectronics jointly with EU research groups and research infrastructures;
  - evaluation of the market for choosing feasible research direction and goals with potential of commercialization of research results (both already obtained and expected in the new project).
- Increasing the awareness of the Ukrainian researchers of the possibilities of European RI and options of cooperation, both at individual and institutional level.
- Increasing the competence of administrative personal, of our and other research institutions from the field of physics and material science, for working in application-oriented research environment.
- Finding the most efficient niche for integration of the Ukrainian academic and R&D institutions in the field of semiconductors and optoelectronics into European research landscape, for enhancement of the EU course toward technological autonomy in this areas.