

Pre-announcement of ERA4Health 2027 Call for proposals:

Nano and advanced technologies for developing Diagnostic tools to improve the detection and the clinical management of non-communicable diseases - NanoDiagNCD

The aim of this call is to support translational research projects that develop application(s) of nanotechnologies, either solely or in combination with Key Enabling Technologies (KETs), to make significant strides in the development of diagnostic and theranostic tools for Non-Communicable Diseases (NCDs). Proposals should focus on developing and/or validating diagnostic and theranostic tools that are grounded in robust scientific evidence. The results obtained from these tools must enable the optimisation of the care continuum. This care continuum includes, among other things, prevention, early disease detection, disease monitoring, treatment guidance, adverse effect and/or risk/benefit assessment.

The proposed research must define and validate performance benchmarks against existing diagnostic approaches to demonstrate added value in terms of sensitivity, specificity, accessibility, affordability, patient comfort, invasiveness and/or safety.

In addition, at any stage of the research and for all applications, translational and adoption requirements for nano-enabled diagnostic and theranostic solutions must be considered. This includes scalability, manufacturability, standardisation, affordability, accessibility, cost-effectiveness, regulatory readiness, interoperability, and integration across different healthcare systems.

In case of the development of theranostic tool(s), the proposed approach must apply a diagnostic-first principle, where diagnostic must serve the therapeutic choice.

Exclusion:

- Proposals where nanotechnology is not central.
- Discovery of new biomarkers. However, the development of known biomarkers is allowed such as technological advancements to improve the performance of existing biomarker-based tests, integration of multiple known biomarkers into single platforms, optimization for a different application, etc.
- Infectious diseases are excluded but studies on chronic diseases resulting from past infectious diseases are allowed.

Participating countries and respective funding organisations

The following participating funding organisations have agreed to fund this call for transnational research projects:

- **Belgium** - Fund for Scientific Research-FNRS (F.R.S.-FNRS)
- **Egypt** - Academy of Scientific Research and Technology (ASRT)
- **France** - French Research Funding Agency (ANR)
- **Greece** - General Secretariat for Research and Innovation (GSRI)*

- **Hungary** - National Research, Development and Innovation Office (NKFIH)
- **Israel** - Ministry of Health (CSO-MOH)
- **Italy** - Ministry of Health (IT-MOH)
- **Latvia** – Latvian Council of Science (LCS)
- **Lithuania** - Research Council of Lithuania (LMT)
- **Norway** - Research Council Research (RCN)
- **The Netherlands** - Dutch Research Council (NWO)
- **Poland** - National Centre for Research and Development (NCBR)
- **Portugal** - Foundation for Science and Technology (FCT)*
- **Romania** - Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI)
- **Slovakia** - Slovak Academy of Sciences (SAS) and Centrum vedecko technických informací slovenskej republiky (SCSTI)
- **Spain** - State Research Agency (AEI), Regional Ministry of Health and Consumer Affairs of Andalusia (CSCJA), Fundación Para El Fomento En Asturias De La Investigación Científica Y Tecnología (FICYT) and Institute of Health Carlos III (ISCIII)
- **Taiwan** - National Science and Technology Council (NSTC)
- **Türkiye** - The scientific and technological research council of Türkiye (TUBITAK)

* The participation of these organisations is still pending.

ERA4Health is cooperating with the Maltese funding agency Xjenza Malta. Through the Access2Partnerships (A2P) Scheme, Malta-based researchers can participate in the ERA4Health Call as partners on own funds and may be eligible to support their involvement in a successfully selected proposal, subject to a successful national application to Xjenza Malta.

General conditions for application

The duration of the projects will be 36 months.

Joint research proposals may be submitted by applicants belonging to one of the following categories (eligibility of project partners may vary according to national/regional regulations):

- **A. Academia**
- **B. Clinical/public health sector**
- **C. Enterprises**
- **D. Operational stakeholders**

Each application must include partners applying for funding from at least two of the three categories A, B and C. The number of participants and their research contribution should be appropriate for the aims of the transnational research project and be reasonably balanced in terms of international participation. Each transnational collaborative project should represent the critical mass to achieve ambitious scientific goals and should clearly demonstrate an added value from working together. It is important to integrate partners from the category D in line with the aims of the proposal.

Only transnational projects will be funded. The following conditions apply to the composition of consortia:

- A minimum of three and a maximum of five eligible partners from at least three different countries participating in the call. In addition, at least two eligible partners must be from different EU Member States or Horizon Europe Associated Countries participating in the call. The maximum number of eligible partners can be increased up to six or seven if they include one or two eligible partners, respectively, from the following participating countries: Lithuania, Slovakia, Taiwan
- No more than two eligible partners from the same country.
- A maximum of 2 collaborators (self-funded partner not applying for funding).

Project partners will be funded by their relevant national/regional funding organisation. Eligible costs and funding rules vary between the respective funding organisations.

Please note: *The content of the call described in this pre-announcement is indicative and may be subject to changes and is not legally binding. Interested applicants are encouraged to initiate scientific contacts with potential project consortium partners for applications.*