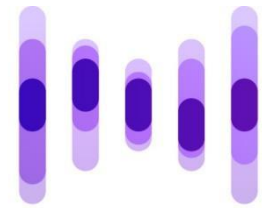


# Call for Research Proposals: Health technology for more healthy years of life.



Health technology  
**for more healthy years of life**  
— we are **HTRIC**

The Health Technology Research and Innovation Cluster (HTRIC) call focuses on the entire chain from basic research through development and engineering to clinical assessment and implementation of human-centred health technology. Proposals will be valued for their innovation, originality, and feasibility. Moreover, clear and novel cooperative research between at least FSE and UMCG, together with the impact and urgency of the project, would be crucial criteria for a successful proposal.

## General Information

The pressure on healthcare is rising, and the challenges are substantial. Scientific and technological innovations are essential in strengthening the entire knowledge chain between basic science and clinical practice. Together, these can lead to fewer invasive patient procedures, more advanced medical intervention procedures, faster recovery, and earlier detection. As a connector within a (still) fragmented landscape, HTRIC is committed to bringing curious people, innovative research, technology, and clinical practice together.

## Purpose

HTRIC's outstanding PhD program offers research talents the opportunity to conduct interdisciplinary research on health technology. Technology should be interpreted broadly, yet it should be a convincing link between basic science and clinical practice. The proposed research concerns an innovation or technology that could lead to a clinical application. Projects that directly involve technological innovation in a clinical setting will be favoured.

For the 2024 call for proposals, applications should fit with one or more of HTRIC's themes:

➤ [Operating Theatre of the Future](#)

*Surgical techniques with calculated accuracy*

The implementation of robot-assisted, high-complexity operations in surgery is taking place steadily. Combining the knowledge and expertise in robotics, navigation, and computer technology at FSE and a high-quality, innovative research team in the surgical discipline at UMCG takes this research line to a higher level. In conjunction with robot-assisted surgery, computer-assisted surgery technology will ensure greater accuracy in minimally invasive procedures. Patient risk is minimised, and operations are performed more quickly and efficiently.

➤ [Replacement and Improvement in the Human Body](#)

*From biomaterials to 3D technology*

Modern medicine cannot exist without the use of biomaterials and nanotechnology. Well-known examples are implants such as prostheses and artificial heart valves, while there are exciting innovations in the works for intelligent implants that offer new or renewed functionality. Biomaterials can stimulate functional recovery after damage from cancer, trauma, or aging. Using new materials and specific, custom-made implants yields substantially shorter operation times, increased efficiency, and reduced morbidity. In conjunction with the use of antibacterial coatings, new materials offer reduced risk of infection.

➤ [Innovative Technology with Local Precision](#)

*Observation, monitoring, and targeted treatment*

Monitoring plays a significant role in the clinical setting and at home. By using personalised devices (sensors and diagnostic tools), we strive to develop innovative and personalised healthcare technology to promote personal healthcare management and enable diagnostics and treatment tailored to the patient. Various partners in the Groningen ecosystem are already deeply involved in developing innovative medical tools, sensor technology, and medical software.

➤ [Point of Care Technologies](#)

*Supporting patients and care professionals at the most suitable location*

POCT is essential for prevention, early diagnosis, remote treatment, and lifestyle support. Point Of Care Technology (POCT) application contributes to affordable, accessible, high-quality care with more control for citizens, clients, patients, and professionals. Being able to offer good care in a sustainable way requires prevention, relocation, and replacement of care. The urgency is great: from the point of view of quality of care as well as organizability, availability, and affordability. POCT can contribute to these challenges using key technologies, specifically digital-, engineering-, life science- and nanotechnologies.

## What to apply for?

For the 2024 call, **five** PhD positions are available for the participating research centres: two projects for the Faculty of Science and Engineering (FSE), two for the Faculty of Medical Sciences (FMS) at the UMCG and one project for the Hanze Hogeschool. The PhD candidates will be employed at the institution where the principal investigator (PI) is the applicant. Granted projects will include a bench fee of €6000.

## Who can apply?

Researchers at FSE, UMCG and Hanze with or without *ius promovendi* with a permanent or a tenure-track position are eligible to be the principal investigator (PI) to apply for this call. In case of not having an *ius promovendi*, the application must be sent together with an applicant with *ius promovendi* rights. Medtech companies in the north of the Netherlands are encouraged to search for collaboration from one of the participating research centres, or vice versa, and apply for the call. Every PI can apply only once in the present call. HTRIC Research Award winners from the previous two years (2022 and 2023) **cannot** apply to the current call. To guarantee a truly interdisciplinary project, the following additional conditions apply:

1. Each proposal is supported by at least two PIs:
  - The first PI from one of the participating research centres (FSE/UMCG/Hanze) and the second from a different participating research centre (FSE/UMCG/Hanze) or company from the North Netherlands.
2. The first applicant will serve as the first supervisor of the PhD student if the grant is awarded and eventually as the first promotor. If the first applicant is not the first promotor, please indicate in the front page who will be the first promotor.

## Assessment

Proposals are limited to a total number of words and have the following outline:

1. The first page includes the project title, name of the applicants, and abstract

To guarantee a fair project selection process, the following pages are applicant-blind and include:

2. Project title and HTRIC theme.
3. Abstract (250 words).
4. Background to the topic (max. 1000).
5. Aims of the proposed research (max. 1000).
6. Description of the research plan, including a timeline and explanation of how the topic fits into one of the four themes of HTRIC mentioned above (max. 1750).
7. A short description of the proposed trajectory to bring the new application to the community (market) and its societal or clinical impact/benefit (max. 750).

Proposals will be assessed on:

1. Originality and innovation.
2. Clear and novel cooperative research between the participating research centres (or research centre and a company).
3. Quality of the proposed plan, including feasibility.
4. Potential impact, including readiness for user adaptation and urgency of the project

The assessment will be carried out by the UMCG/FSE/Hanze evaluation committee to be announced after the application deadline.

## Award

Winners of the PhD call must post the position on the job offer website of the research institution of the first applicant to guarantee that multiple people can apply.

## Additional Information

The accepted research proposals are expected to be part of a yearly joint evaluation with an HTRIC committee and deliver a pitch at the HTRIC Annual Meeting.

## Time frame for the 2024 call

4 <sup>th</sup> October – 30 <sup>th</sup> November:	Call opening and deadline for the submission of the proposals (by e-mail to <a href="mailto:info@htric.nl">info@htric.nl</a> ) in two PDF files, one containing the description of the project with the applicant's names (Front page) and the second containing the pages describing the project (Blind Document).
1 <sup>st</sup> December – 31 <sup>st</sup> January:	Assessment and ranking of the proposals by the evaluation committee. If necessary, the committee can decide to interview (20-30 min) an applicant.
5 <sup>th</sup> February:	Applicants are informed about the decisions of the evaluation committee.
31 <sup>st</sup> July	Winners of the call must give the name of the candidate who will take the project
1 <sup>st</sup> September	(Eventually) The PhD candidate will start working on the project