

FIFTH THEMATIC CALL OF THE RESEARCH, DEVELOPMENT AND INNOVATION PROGRAMME ICT 2023: Information Security 2015

Research, development and innovation programme ICT 2023

The research, development and innovation programme ICT 2023 is jointly coordinated and funded by the Academy of Finland and Tekes, the Finnish Funding Agency for Innovation. The aim of the programme is to further improve Finland's scientific expertise in computer science and to promote the broad-based application of ICT. The programme is based on the report 21 Paths to a Frictionless Finland ¹ by the ICT 2015 Working Group. At least 10 million euros of the Academy's budget authority for 2016 will be used to implement the ICT 2023 programme.

Thematic areas

The call includes two key thematic areas:

1. Information security in network and service infrastructures and in e-business

Possible research topics include information security applications and environments where, traditionally, not enough attention has been paid to encryption methods and effective information security solutions, but where the ever-growing processing capacity, for example, would today make such solutions implementable. This perspective provides a transdisciplinary approach to the thematic area and creates a potential demand for innovations. Within this theme, projects are required to involve expertise in both information security methodology and applications.

2. Information security in the digital society, the user perspective

Possible research topics include new kinds of environments and related systems emerging in an increasingly digitalised society that have not yet been sufficiently explored. Such systems include building automation, home area networks (home automation), ICT linked to an individual person (personal area networks, nanonetworks, systems related to health monitoring and healthcare), protection of social media privacy, information security in cloud computing and the internet of things, industrial automation systems as well as increasingly diversified steering systems for vehicles and other mobile devices. A separate component is how to secure critical systems such as telecommunications networks, electricity grids and water supply as well as public authorities' management systems. In the future, such systems will be increasingly dependent on wireless connections (e.g. 5G networks) and various sensor, data analysis and remote access solutions. This theme also includes topics related to information security in these and other emerging systems.

Review of applications

The applications will be reviewed and the decisions will be made following [the Academy's general review criteria for research programmes](#). In addition, special attention will be paid to the following issues:

- international engagement
 - attracting young, talented researchers from abroad to Finland or hiring researchers who have recently come to Finland to work on the project
 - research visits by Finnish researchers to leading-edge international universities and research institutes

¹ www.tem.fi/files/35440/TEMjul_4_2013_web.pdf

- business cooperation
 - cooperation between universities, research institutes and business companies
 - problem-setting in research
 - application potential of results
- intersectoral mobility of leading-edge researchers
 - mobility from universities to business companies
 - mobility from business companies to universities
- use of universities' and research institutes' own resources in the research
 - use of resources of the site of research and the partners
 - level of commitment and contribution of funding by the site of research.

The call has two stages.

Based on the letters of intent submitted at the first stage, the Academy will decide which projects will proceed to the second stage. Projects selected to the second stage will be invited to submit full applications in the Academy's online services. The non-negotiable deadline for full applications is 1 April 2016 at 16.15. Applicants may be invited to interviews during the review process.

A panel composed of members of the Academy's Research Council for Natural Sciences and Engineering and possibly other experts will be responsible for the review of the letters of intent. The full applications will be reviewed by an international expert panel.

The funding is granted for two years. As a rule, the funding period will start on 1 July 2016.

Consortium applications

If the applicant is a consortium, see detailed guidelines on our website under [Guidelines for consortium application](#). The composition of the consortium cannot be changed after the first-stage deadline has expired.

Intersectoral consortia

The application must include a collaboration plan as a separate appendix, if the project involves cooperation with business companies. In addition, applicants must clearly indicate in their research plan which parties are applying for funding from Tekes.

Collaboration plan (no more than three pages):

- List all parties and specify which parties are applying for Academy funding and which for Tekes funding.
- Describe the collaboration and management included in the project.
- Describe the management and research duties within the project.
- Describe the mechanisms by which the project will integrate all participating organisations and individual researchers.
- Describe, if relevant, the implementation of intersectoral researcher exchange.
- Define each PI's required input to the project, and justify why each research team's expertise is necessary in order to achieve the project's objectives.
- Describe the complementary roles of the companies in the consortium, and explain which research results can be jointly utilised by the companies.
- Describe the application potential of the results.

- Make sure that the collaboration plan's length and details are proportional to the size of the project. The plan should be extensive enough to ensure that the project parties will work together as one whole.

In the Academy's online services, enter only the consortium parties that are applying for funding from the Academy. On the Academy's applications form, business companies are entered as collaboration partners. Within this call, Tekes is prepared to fund only such projects by companies that are parallel with the proposed research projects.

Funding from Tekes is applied for in line with Tekes' guidelines. The deadline for letters of intent addressed to Tekes is 29 October 2015 at 16.15. The letters of intent are submitted via Tekes' service at www.tekes.fi/en/funding/could-your-company-be-a-tekes-customer. Click on *Test your service need* and proceed to complete the form. Enter the code "ICT 2023 Information Security" under *About the contact*.