

Apply for funding to hire a doctoral researcher!

The Finnish Organic Research Institute FORI (Luomuinstituutti in Finnish) will finance new doctoral research projects as a part of Luke's Doctoral Programme.

To strengthen research supporting organic sector, FORI will finance two doctoral research projects that support [FORI's research strategy](#) and the implementation of [Finland's national program for organic production](#).

The FORI is now accepting funding applications for 4-year doctoral research projects. Each awarded project will receive funding for salary for one doctoral researcher who will be hired by the Natural Resources Institute Finland, Luke. A maximum of two projects can receive funding. The funding period will begin earliest at the beginning of 2024.

The doctoral project should be linked to at least one of the below described themes. Based on the quality of the proposals, Theme 1 will be prioritized in the context of one doctoral project.

1. Organic plant production

More diversified cropping systems, functional biodiversity, optimal nutrient management and agroecological management methods/practices can increase yield stability and crop resilience against weeds, insect pests, plant diseases, and abiotic stresses in organic crop production while improving product quality, biodiversity, and soil health. The new opportunities provided by smart digital monitoring methods and remote identification systems need to be utilised in the development of plant protection in organic production. Changing climate conditions affect the occurrence of insect pests and plant diseases. There is a need for developing plant protection methods and studying their effectiveness and profitability. There is also a need to increase knowledge of how biodiversity in the agricultural environment/agroecosystems can be used to support plant health in various organic farming systems. Building soil fertility and optimal nutrient management are key factors to achieve healthy crops and stable yields sustainably. Recycled fertilisers suitable for organic production need to be developed. It is also important to develop knowledge of the cultivation of minor crops in organic arable and horticultural systems.

2. Organic livestock

Livestock farming is an integral part of organic production. Finland is regionally differentiated in terms of livestock production and crop cultivation, which weakens nutrient cycles and hinders feed trade between farms. Another challenge is the significant increase in production costs in organic livestock farming and the requirements set by new legislation concerning organic farming. It must be possible to increase the protein self-sufficiency of feed production for non-ruminants. There are many bottlenecks that must be resolved to increase production, particularly in pork and broiler production. Organic production leads the way in providing production conditions that enable the natural behavior of animal species that affects animal welfare. The mandatory grazing requirement for organic livestock prevents biodiversity loss, but there is a need for more research data and practical examples on benefits of grazing. Exemptions related to the use of conventional animals in organic production will expire in certain respects on 31 December 2036. Animal material suitable for organic production must be bred considering the feed and medication requirements related to organic production, including high genetic diversity, ability to adapt to local conditions, and the animals' longevity, vitality and resistance to

diseases and health problems. Research projects must focus on studying the selection criteria for animal material suitable for organic production.

3. Organic food and consumption

Expertise is needed especially in the further processing of organic foods whose consumption is increasing, such as vegetarian and convenience foods. Research must cover the entire food sector in a versatile manner, including the processing of organic products, nutritional quality and safety end products, consumers' preferences, and function of the whole organic supply chain. The reduction of food waste must also be promoted throughout the chain, including by making better use of side streams. Consumers want to ensure the authenticity of organic products, which is why authentication, traceability and transparency throughout the supply chain are important areas of development. The development of digitalisation serves the entire chain, entrepreneurs, trade, and consumers.

4. Environmental impacts of organic production

Currently available research data about the environmental impact of organic production is not unambiguous, and not much data about Nordic production conditions is available so far. The research of the environmental impact of organic production focuses on the opportunities of organic production in reducing environmental loads. The circular economy promotes the resource-efficient use of materials. There are currently not sufficiently robust, standardised and widely accepted methods, nor enough data to assess the ecological benefits of organic systems in comparison to conventional systems. For a competent and credible organic sector, the development of better assessment methodologies should be promoted. In particular, the inclusion of environmental benefits offered by organic production, such as its ecosystem services, in lifecycle assessments is still insufficient. Links between environmental and social research include the pricing and markets of ecosystem services provided by organic production as a possible incentive scheme to increase organic production.

Who can apply?

Applications must be submitted by a minimum of 2 researchers who are eligible to supervise doctoral researchers and represent both Luke and the University of Helsinki (UH). Funding will be applied for a new project that does not have an assigned doctoral researcher yet; the doctoral researcher to be selected and hired later must apply for the right to pursue a doctoral degree at the UH within 6 months of the start of the employment. Research groups with the approved proposals will participate in the recruitment process of doctoral researchers in collaboration with Luke's HR team. Funding will not be granted for an ongoing doctoral research project.

Eligibility criteria for the applicants

At least two of the applicants are expected to represent different organisations, Luke and UH. Both of them must fulfill the criteria set for the supervision of doctoral thesis by their own organization.

Evaluation criteria

- Scientific quality and originality of the doctoral research project.

- The relevance of the doctoral research project for at least one of the presented themes as well as FORI's research strategy and national organic program mentioned above.
- Feasibility of the doctoral research project plan.
- Applicants' scientific qualification, capacity, and commitment to supervise a doctoral researcher.

Evaluation and decision making

The Evaluation group will grade the applications, and decisions will be made by the FORI's Steering group.

A maximum of two projects can receive funding.

Applicants will receive a decision no later than January 2024. News about the granted funding will be published at the FORI's website, and the applicants will be informed by e-mail.

How to apply

The call is open from 13.11.2023 to 8.12.2023 at 16:00. Apply by filling [the online application form](#)

Mandatory appendices (in pdf form):

Research plan, 3-5 pages. The research plan should include the following sections:

1 Scientific excellence: 1.1 Aims & objectives, 1.2 Research methodology; 2 Impact; 3 Implementation: 3.1 Work plan & schedule, 3.2 Funding plan for doctoral research expenses (other than the salary expenses plus 10 000 € annual budget for other costs that can be funded by FORI). Name the file according to the main applicant as Lastname_Firstname.pdf.

CV of each applicant, max 3 pages, following the headings and structure of [the Research Council of Finland CV guidelines](#), and including a list of max 10 most relevant publications within the CV. Name the file according to the applicant as Lastname_Firstname_CV.pdf.

Additional info

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Luomuinstituutti/Finnish Organic Research Institute