FORMAS

ETT FORSKNINGSRÅD FÖR HÅLLBAR UTVECKLING
A SWEDISH RESEARCH COUNCIL FOR SUSTAINABLE DEVELOPMENT

Food and the consumer in a circular and innovative food system

Call within the National Research Programme for Food

Closing date for applications: 26 April 2018 (2pm)

Decision date: 14 November 2018 (preliminary)

Contents:

Formas welcomes researchers from all disciplines to formulate research projects on food in a circular, bio-based economy. These projects may focus on smarter usage and processing of raw materials and residual products, or on consumers and the food market in a circular, bio-based economy. The research funded is expected to provide new knowledge that meets the needs of society.

Description of the call

Overall focus and scope of the call

The food sector is a key part of a circular and sustainable, bio-based economy. Effectively utilising and processing raw materials, residual products and by-products, turning them into new, attractive and sustainable foods, adds value for the raw material and the end products and is of significance for a sustainable food sector as well as a sustainable society.

The demand for nutritious foods will increase as the population grows. Demographic changes, new consumer groups and changing dietary patterns will place new requirements on the capacity of the food sector. Producing, processing and distributing an increased quantity of high-quality foods in a manner that is sustainable, safe and fair presents a challenge. Access to high quality foods can be increased by combining production measures and new raw materials with efficient processing and initiatives to reduce wastage and promote innovative foods, without increasing adverse environmental impacts. In order to succeed in this, new knowledge is needed to support innovation in both production and processing, as well as in the distribution and market segments. A more in-depth understanding of consumers is also needed; what drives the many food-related choices we make every day, how is information interpreted and what are the incentives for change or acceptance of new foods in different consumer groups.

The call "Food and the consumer in a circular and innovative food system" is open for researchers from all disciplines based at Swedish universities, colleges, research institutes or research performing public authorities, to submit applications for research projects concerning issues related to food in a circular, bio-based economy. Formas encourages companies and public organisations to participate in projects. The relevance of the projects to the food sector and society in general, and to the potential of the project results to meet a need identified in society is of major importance.

The project should deal with issues related to either:

- Products and processes, or
- Consumers and markets.

Applications are to be submitted to one of these two focus areas.

Research projects within the focus area **Products and processes** may, *for example*, relate to the efficient use of raw materials, by-products and residual-products for smart new foods, innovative processing and distribution. These projects are expected to challenge traditional research methods and a multidisciplinary and interdisciplinary approach is encouraged, as are projects with a systems perspective. A systems perspective may involve broader issues that span several parts or aspects of the food system. It may also involve placing a project in a wider context, for example with analysis of consequences for and effects on health, the environment or the economy. Issues of relevance to primary production/production systems may also be included in a project, but food products or processes higher up in the food chain should be the core aspect of the project. Involvement from the business community and other stakeholders is strongly encouraged and positively considered in the evaluation of the application.

Research projects within the focus area **Consumers and markets** may, *for example*, relate to consumer behaviours, market potential, business models and incentives and instruments for the transition to sustainable food consumption. The projects should be innovative and needs-driven. Dialog with relevant

stakeholders is encouraged and will be considered in the assessment of the applications. Multidisciplinary, interdisciplinary and intradisciplinary projects may apply for funding.

Formas funds research for sustainable development. How the project is expected to contribute to meeting global challenges, the aims of the national food strategy and/or other relevant national or international strategies and aims, such as – for example – the government's sustainable consumption strategy, may also be elaborated on in the project application. Perspectives relating to digitisation or perspectives on gender, class, ethnicity and other social aspects should also be included in research projects where applicable.

The call is the second within the National Research Programme for Food. The research programme is a part of the government's action plan for the Swedish food strategy *A National Food Strategy for Sweden – more jobs and sustainable growth throughout the country* (2016/17:104), the strategic area of "knowledge and innovation". Its purpose is to support the knowledge and innovation system in order to help bring about increased productivity and innovation in the food supply chain and sustainable food production and consumption. [Find out more about the National Research Programme for Food (in Swedish) (http://formas.se/sv/Internationellt/Forskningsprogram/Nationella-forskningsprogrammet-for-livsmedel/).](http://formas.se/sv/Internationellt/Forskningsprogram/Nationella-forskningsprogrammet-for-livsmedel/) The call will also contribute to the innovation partnership programme for a circular, bio-based economy.

The call covers a total maximum amount of SEK 75 million over three years. Each research project can be granted funding not exceeding SEK 2.5 million per project year, for up to three years. The funds for the call will be distributed between the two focus areas on the basis of the number and quality of applications received. Formas' aim is to fund high-quality projects in both focus areas.

Stakeholder collaboration within research projects

Needs-driven projects, with relevance to the sector, generally require collaboration with industry and the business community. Clear involvement from these stakeholders – especially in projects in the Products and processes area – is strongly encouraged and will be positively evaluated. Other stakeholders, such as municipalities and branch- and consumer- organisations, may be relevant partners for research projects in both focus areas. Relevant stakeholders may be co-applicants for projects in this call. Being a co-applicant for an application means that a person's CV must be included in the application, which will make it possible to carry out a more complete assessment of the expertise of the consortium. Formas will not cover costs for stakeholder participation. Business community or other stakeholders can contribute to a project in-kind or with other resources. The degree of co-funding will depend on the project. Collaboration should be described in the project application. Co-funding must be specified in the budget form and described in the budget specification.

Mobility

The research projects may be designed in a manner that allows them to contribute to researchers' mobility. Researchers can travel to a different research environment for a shorter time or receive guest researchers at their own research environment. Mobility may also relate to interaction between researchers and stakeholders in the wider community.

International perspectives

International collaboration and use of international expertise is encouraged where relevant. How the international expertise will contribute to the project and potentially reinforce the Swedish knowledge base should be described in the application.

It is also possible to study international contexts and global perspectives. The new knowledge and project outcome may support sustainable food production and consumption either in Sweden and/or globally, as well as enhancing our understanding of flows and links between Sweden and the rest of the world.

Dialogue meeting about the call

On March 23 a dialogue meeting about the call is arranged in Stockholm. More information can be found in Formas calendar (http://formas.se/sv/Kalender/).

Last day of application

The call closes **on April 26, 2018** at **2pm**. Generate your application in Prisma preferably well in advance in order to be able to receive help if any problem should occur. Applications can be reviewed in advance at any time during the process. Up until the call closes it is possible to retract the application and make changes to it, before reregistering/resubmitting it again. Note that it will not be possible to add information to applications after the call has closed.

Your application

What you can apply for

- Funding can be awarded to projects that are within Formas' responsibility areas and within the framework of the call.
- Application can be made for costs connected to the implementation of the project, for example finance of salary for researchers, doctoral students or technical staff. Salary for doctoral students can be granted for up to three years. Note that the total salary costs granted for an individual researcher, doctoral student or other member of the project may never exceed 100 per cent of a full-time position. This implies that further funding of salary costs cannot be granted for a researcher, doctoral student or other project staff member already receiving full salary funding. Note that Formas does not grant funding for annual salary increase.
- Grants for research projects may also be used to fund running costs (e.g. consumables, equipment costs of a value below 500 000 SEK, travel, collaborative activities and conferences), equipment depreciation costs (max 500 000 SEK) and costs for premises. Funding must not be used for scholarships or educational grants for research students.
- Funding may also be applied for costs related to mobility. Such costs must be described in the application. Note that funding is administered by the grant administrating organisation.
- Grants can also be sought for costs related to publication in journals and databases applying Open Access. Note that researchers receiving funding from Formas must guarantee that their research results will be available through Open Access within six months of publication. Find out more about the Formas policy for open access to research data (in Swedish) (http://www.formas.se/PageFiles/15559/Beslut_policy_oppna_data.pdf).

Funding amounts and project duration

- It is possible to apply for funding for a maximum of three years.
- The total amount applied for an individual research project can be up to a maximum of SEK 7.5 million and must not exceed SEK 2.5 million on average per project year. If the total amount applied for exceeds an average annual amount of SEK 2.5 million the application will be rejected.
- The start date for all projects is preselected in Prisma and cannot be edited. Project funding for the first 12 months of the project will be paid in 2018 (no payments will be done in 2021). The funds for research projects may be disposed one year after the end of the project period.
- Financial reporting will be required annually for projects exceeding 18 months. Financial and scientific final reporting will take place at the latest three months after the end of the disposal period.

- Co-funding is not required in this call; however, co-funding is welcome and encouraged, especially for projects in the focus area of Products and processes. Co-funding may, for example, be in the form of working hours in the project (in-kind).

Who can apply

- To be able to apply for funding, main applicants must have completed a doctoral degree.
- Participating researchers should have a doctoral degree.
- In this call, partners outside academia may also be co-applicants on an application. Co-applicants outside the academia do not need to have a doctoral degree, but will be registered as "participating researchers" in the application. Being a "participating researcher" means that an individual's CV must be included in the application, which will make it possible to carry out a more complete assessment of the expertise of the consortium.
- Other individuals participating in the project (without being co-applicants), such as administrative personnel, research students, technical personnel or other partners do not need to have completed a doctoral degree.
- Funding may only be administrated by a Swedish university, university college, research institute, government agency with research assignments or any other Swedish public organisation that meets Formas' eligibility requirements for grant administrating organisations (read more on eligible grant administrators (http://www.formas.se/en/Financing/General-instructions/Grant-administrating-organisation/)). Project partners outside the academia are expected to contribute to a project with their time and expertise in-kind or with other resources.
- There is no age limit for applicants or participating researchers, but fully retired researchers cannot obtain funding for their salary.
- Main applicants may submit no more than one project application to this call.

How to apply

Applications for funding are submitted via the Prisma application system. A user account is needed to create an application in Prisma.

Link to Prisma (https://prisma.research.se)

The application may be written in Swedish or English but Formas recommends that the application is written in English. The evaluation panels have an international composition and applications that are entirely written in Swedish will be translated into English before they are given to the evaluation panel for assessment. It is not possible to make changes to the application after it has been translated. The popular scientific description must be written in Swedish, but the project summary must be written in both Swedish and English. Please note that the budget specification must always be written in English. A Swedish budget specification will not be sent for translation, but will be assessed by the international review panels in its original format.

What the application must include

All the limits for the maximum number of characters refer to characters including spaces.

Basic information

- The number of years the application refers to
- Project title in Swedish and English
- Popular scientific description in **Swedish** (4500 characters)
- Abstract in **Swedish and English** (1500 characters each)

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Research programme

- Specific aims and objectives and originality of the proposed project. This section should also include a background description containing an overview of the research area as well as a description on how the goals and objectives of the project relate to the aim of the call and, if applicable, other relevant objectives and strategies (7 000 characters).
- Project description, including project design, theory, methods, implementation and a plan for scientific publication (15,000 characters).
- Description of the potential societal value of the project and its relevance to the food sector, as well as planned targeted communication activities and interaction with stakeholders. Describe the relevant stakeholders/users and how they will be included in the research (where applicable). Describe how results from the project will be communicated and how the potential impact of the research may affect different groups in the society (8000 characters).
- References included in running text under the items above will be specified in a separate field (4000 characters).

Budget

- Salaries, including social-security contributions for each project participant. For existing employment positions, the current salary at the time of application (including social-security contributions) must be used for all subsequent years. For new employment positions the starting salary at the grant administrating organisation must be used for all subsequent year. Note that Formas does not grant funding for annual salary increase.
- Activity level/dedicated time in the project for all project participants. Include also activity level for the project participants who contribute with time in-kind or have funding for participating in the project from other sources.
- Running costs is specified in accordance with the practice used at the grant administrating organisation.
- Depreciation costs for equipment is specified if relevant to the application.
- Premises costs is specified in accordance with the practice used at the grant administrating organisation (unless included in the overhead costs).
- In the budget summary for the project indirect costs are specified in accordance with the practice used at the grant administrating organisation. Indirect costs are considered to be overhead costs. Formas does not permit overhead on depreciation costs for equipment or costs for premises.
- In the budget summary for the project "Other costs" are specified. "Other costs" are costs which are not applied for from Formas but that are of relevance to the implementation of the project, e.g. any co-funding from project partners.
- In the budget specification a brief motivation for all salary costs and other costs is required. A description of the total budget for the project, including finance from other sources, must also be included. Clear justification must be specified for all other costs, such as participation in conferences, purchasing data, publication via Open Access, etc.

Note that the budget and budget specification should be written in English: a Swedish budget specification will not be submitted for translation but will be reviewed by the international expert panel in its original format. Note that in Prisma amounts should be written out in full, e.g. one million SEK is entered as SEK "1 000 000".

Ethical considerations

Applicants should always specify whether there are special ethical aspects in the project. If so, the ethical issues in question and how they are to be handled in the context of the research project must be described. This may, for example, involve research that make use of personal data or involves experiments on humans or animals. Find out more about ethics in Formas' general instructions (http://www.formas.se/Financing/General-instructions/).

Classifications

- Select a subject area.
- Select at least one, and at most three, SCB codes.
- Select at least one, and at most three, of the 17 Global Sustainable Development Goals that best apply to the project. If more than one goal is considered relevant, the goals should be indicated in order of priority. The most relevant goal should be indicated in the first box. For more information on the Sustainable Development Goals, http://www.un.org/sustainabledevelopment/sustainable-development-goals/.
- State at least one, and at most five, key word(s) that describe the project.
- Specify which of the following parts of the food system your application relates to: Production, Processing, Distribution, Consumption, Food safety or Food waste. Categorize your application according to the aims, or the anticipated practical implications, of your applied project.

Appendices

The following appendix may be uploaded if relevant to the application:

- Appendix J. Illustrations. If figures, tables or images are needed to describe the proposed project, an appendix may be enclosed. A maximum of one 4 MB appendix in PDF format can be uploaded.

The following appendix is mandatory for all applications:

- Appendix K. – Research Data. Appendix K should be filled out and uploaded for all project applications. If data collection is not part of the project or if it is not possible to make the data available through open sources this should be stated in the Research Data form. Please note that Swedish universities, university colleges and other authorities are responsible for the safe storage of data collected as part of their activities. Funding to enable data storage that can be regarded to be within the responsibility of these authorities must not be included in the application. Formas recommend that scientific data is published within a reasonable period of time and made accessible via relevant national and/or international organisations for data publication. Use this template for appendix K (http://www.formas.se/Documents/Prisma_appendices/Bilaga_K.pdf). Find out more about the Formas policy for open access to research data (in Swedish) (http://www.formas.se/PageFiles/15559/Beslut_policy_oppna_data.pdf).

Grant administrating organisation

- Select your grant administrating organisation and add the project department or unit where the project is based. Read more about Formas requirements for grant administrating organisations here (http://www.formas.se/en/Financing/General-instructions/Grant-administrating-organisation/).

- Approved grant administrating organisations are listed in Prisma. If your research organisation is not included in the list, contact your organisation as it must create an organisation account in Prisma.
- A registered application is automatically sent to the grant administering organisation for approval, once the call closes. The administrating organisation has seven calendar days to sign the application.

Review panels

- Select review panel based of the focus area of your application, Products and processes or Consumers and markets. Please note that you should only select one review panel.

Participants

- The main applicant invites "participating researchers" (the participants who are intended to be co-applicants for the project – a doctoral degree is not required for co-applicants in this call) and participating administrators (not a part of the project, but persons that help you fill out the application form).
- Participants must themselves be registered and have their own personal account in Prisma. The main applicant invites participants by searching their name and e-mail in Prisma (note that correct spelling of names and e-mails is required).

CV

The applicant retrieves information relevant to the application from their personal profile in Prisma. "Participating researchers" themselves add CV information from their profile to the application and should ensure that their CV in Prisma is complete and up to date. This information should include:

- **Education**: Post-graduate (doctoral) education, undergraduate and graduate education.

- **Professional history**: Current employment and relevant previous longer-term positions, postdoctoral residencies, research exchange visits relevant to the described research project, as well as any extended period of interruption to the research (for example parental leave, illness, military or public service).

- **Merits and awards**:

  - **Associate professorship**

  - **Supervision:** doctoral students, post-doctoral students, and exam project students; state the total number in each respective category and provide the names of the most relevant supervisions (max. 10).

  - **Grants awarded in competition,** state the most relevant grants (max. 10).

  - **Prizes and awards**, state the most relevant grants (max. 10).

  - **Additional merits, including information on publications:** Here the main applicant and the participating researchers must state the number of their publications over the past 5-year period and the total number of publications if the applicants have been active within the profession for a period longer than five years (max. 800 characters including spaces). This summary should also include the number of publications of different types (such as articles in peer-reviewed journals, book chapters, books and other monographs, conference contributions, popular science contributions). For participating stakeholders outside academia, previous relevant experience of research and development should be

included as well as expertise and experience relevant to the project in question. Under additional merits other merits relevant to the application may also be listed, such as documented experience of collaboration and research communication (max. 10).

- o **Intellectual property:** For example, patents and public access software programs developed by the applicant (max. 10).

List of publications

The main applicant and participating researchers should specify up to ten of their most relevant publications. Observe that the publications should be linked from the applicants' personal profile in Prisma.

Evaluation of the applications

The applications will be assessed by an international expert panel made up of active researchers and people (users of research) who are qualified to assess the relevance of research. All criteria must be addressed in applications, and applicants are encouraged to clearly and specifically relate the application to these criteria. The applicant is encouraged to be thorough with the structure and clarity of the application, as the evaluation will be based solely on the information provided in the application.

The expert panels will assess the applications according to the following criteria. Please note that clarifications specified for each criterion below are specific to this targeted call.

Criteria for Scientific Quality

1. Research question

- Scientific significance of the objectives of the research
- Originality and novelty of the purpose, theory and hypotheses
- Possibility of significant scientific results
- Objectives consistent with the call

Clarifications*:*

- Multidisciplinary and interdisciplinary approaches, as well as system perspectives on the research question, must be regarded as being advantageous when appropriate for the research topic
- Equality and gender or other critical perspectives must be included in the research question where applicable

2. Methods and performance

- Feasibility and suitability of the scientific methods
- Innovativeness of the methods
- Specific and realistic work plan
- Specific and realistic plan for scientific publication and dissemination of information
- Coordination of the project and the research group
- Suitability of multidisciplinary and interdisciplinary approach
- Ethical considerations
- Feasibility of the budget in relation to the structure of the project and the anticipated results

Clarifications*:*

- Collaboration with the business community and other stakeholders in the planning and implementation of the project will be considered positive where relevant to the research question

3. Scientific expertise

- Scientific quality of the publications
- Ability to carry out the project according to the project plan
- Experience of supervision of younger researchers (postdoctoral and doctoral students, as well as degree project students for applicants who are young researchers themselves)
- Experience of project leadership
- National and international activities, including projects, networks, commissions, honorary commissions, participation in or organisation of workshops and conferences
- Interest in, experience and ability to disseminate research and research results to stakeholders/users
- Strength and competitiveness of the research group

Clarifications:

- The quality of scientific publications must be assessed with regard to standards in each scientific field
- When several researchers and stakeholders collaborate, the competence and expertise of each individual participant and the overall expertise and experience of the team, and their ability to implement the project, will be assessed

Criteria for societal relevance

1. Potential societal value of the research topic

- The research topic addresses important social/sector issues within the focus areas of the call, nationally and/or internationally
- The project can, over a short-term or long-term perspective, contribute to sustainable development nationally and/or internationally
- Stakeholder/end-user needs have been taken into account in the design of the project
- The objectives are consistent with the call

Clarifications:

- The most important areas where impact can be anticipated are identified and described in the project plan
- Taking into account stakeholder/end-user needs can include reference to, for example, directives, environmental goals, global sustainability targets and strategies
- Collaboration and/or dialogue with the business community and other stakeholders in society in the design of the project will be considered positive

2. Communication with stakeholders/users

- Description of relevant stakeholders/users

- Specific and realistic plan for the involvement of relevant stakeholders/users in the project and for the communication of the research and its results to these parties

Clarifications:

- Realistic and appropriate impact goals and initiatives/activities for communication and interaction that contribute to utilisation of the research are well described
- Stakeholders/users should be regarded in a broad sense as stakeholders outside the research community, nationally as well as internationally, who can benefit from the research results or facilitate the future use of the results in society
- Communication with stakeholders/users may be tailored in different ways and with different timeframes, depending on the research question at hand, but should include various forms of dialogue with stakeholders and potential users of the research and the research results. See Support for addressing the communication criterion.

How will the assessment process be implemented?

Formas will assess the applications according to the instructions and directives provided in the call text. The research must be of relevance to sustainable development of society and of highest scientific quality.

Find out more about the evaluation process on Formas website.

Funding decisions

Decisions on grant funding will be made by Formas' Scientific Council on November 14, 2018. The decisions will be published on Formas website shortly afterwards. Decisions about funding grants cannot be appealed.

Background to the call

The call "Food and the consumer in a circular and innovative food system" is one of two calls in the second round of calls within the National Research Programme for Food. The second sub-call aims to support Proof of Concept projects related to food. The first call in the programme, "Syntheses within the food area", was launched in 2017. The call "Food and the consumer in a circular and innovative food system" will also contribute to the innovation partnership programme for a circular, bio-based economy.

The National Research programme for Food is a part of the government's action plan for the Swedish food strategy *A National Food Strategy for Sweden – more jobs and sustainable growth throughout the country* (2016/17:104), the strategic area "knowledge and innovation". The purpose of the programme is to contribute to needs-driven research, innovation, dissemination and commercialisation of research results and increased knowledge in the food chain. The aim is to support the knowledge and innovation system in order to help bring about increased productivity and innovation in the food chain and sustainable food production and consumption. Find out more about the National Research Programme for Food.

The National Food Research Programme is one of several ten-year national research programmes. The others were established by the government in the latest Swedish Research Bill, *Collaborating for knowledge – for society's challenges and strengthened competitiveness'* (2016/17:50). Th programmes aim to create powerful synergies between different stakeholders that complement one another in terms of knowledge, expertise and assignments in order to help meet major societal challenges. Find out more about Formas' national research programmes.

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Support and shortcuts

- General instructions (http://www.formas.se/sv/Finansiering/Allmanna-anvisningar/)
- Ethics policy (http://www.formas.se/Finansiering/Etikpolicy/)
- Grant administrating organisations (http://www.formas.se/sv/Finansiering/Allmanna-anvisningar/Medelsforvaltare/)
- Prisma (https://prisma.research.se/Start)
- Prisma support (https://prismasupport.research.se/)

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