CORE organic Cofund


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Intelligent food processing chains & natural additives and colourants

SusOrgPlus


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Aim of the project:

Improvement of the sustainability of organic food processing and the nutritional value of processed organic produce.

Main activities:

- Development of cost-effective processing systems including dynamic multi factor process control
- Development of a demonstration unit on a CO_2 neutral drying system, utilising waste heat recovery and a novel heat pump application
- Development, testing and evaluation of novel natural food additives/colourants
- Conduction of an environmental impact analysis, including LCA and LCCA
- Stakeholder engagement, student involvement and dissemination

Background

In recent years, the organic sector has put significant efforts in the development of clear definitions for gentle and quality oriented processing of animal and plant based food stuffs to supplement existing regulations. However, there is still a significant need for development of a Code of Practice (CoP). Quality of a product and sustainability of production depend on the cumulative impacts of each processing step in the food chain and their interplay. Many of the influencing factors are not known at this date.

Introduction

SusOrgPlus aims to improve the sustainability of organic food processing and the nutritional value of processed organic produce.

SusOrgPlus will develop smart food drying devices, renewable energy drying solutions, value added, natural food additives and supporting material for a related code of practice leading to high quality products with low environmental impact.

The project will result in technical solutions and value added products.

The EU is the primary target region for the project, but dissemination to developing and emerging countries will also be a part through student supervision on different levels and stakeholder actions.

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Expected results

- Novel, affordable and smart processing systems for high quality ingredients and highly nutritious dried (and further processed) products
- New natural value added products in the form of extracts and powders
- Reduced environmental impact by increase of raw material utilisation and development of CO_2 neutral heat pump supported drying systems
- Supportive material for the development of a Code of Practice
- Sound data base and environmental performance, LCA and LCCA evaluation for selected products
- Highly qualified graduates who are sensitised to organic food

Societal and long term benefits

The project will provide supportive material for the development of a Code of Practice for processing of food stuffs to dried products and production of natural additives/colourants with maximum quality retention as well as increased energy efficiency, co-developed with the relevant stakeholders and translated in partner languages. Thus, the processors are provided with means to improve production and increase their livelihoods. Further, nutritional value of processed organic produce is increased.

Moreover, transferability to other products is expected to be high.

By early inclusion of students in the conducted research, the project supports highly qualified potential employees, sensitised for the needs of the sector. This will directly help the actors on the market to cater for consumer demands in terms of quality, increased nutritional value, reduced need of non-natural (and potentially contentious) additives, and sustainability.


Photo: Serena Ferri

How to reach target groups

The project plan foresees at least one training pack for the end users of the outcomes of this project, namely on-farm and off-farm producers of dried and value added plant and animal based products in each country. Workshops will be held as one- or two-day events and carried out on smart processing and production of extracts and colourants and their application.

Students will be included in the project work and findings integrated in teaching modules.


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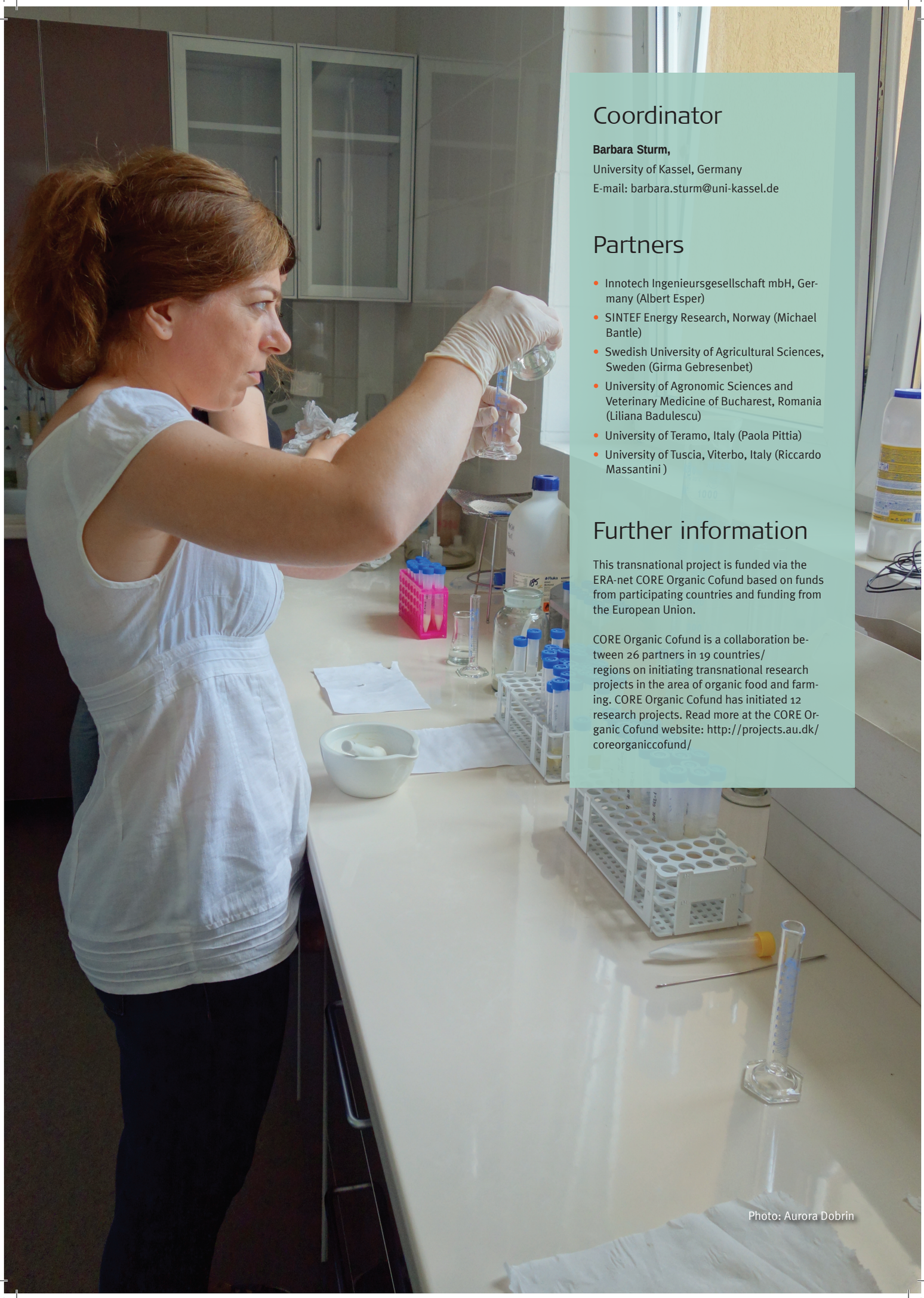

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Further information

This transnational project is funded via the ERA-net CORE Organic Cofund based on funds from participating countries and funding from the European Union.

CORE Organic Cofund is a collaboration between 26 partners in 19 countries/ regions on initiating transnational research projects in the area of organic food and farming. CORE Organic Cofund has initiated 12 research projects. Read more at the CORE Organic Cofund website: http://projects.au.dk/coreorganiccofund/

Photo: Aurora Dobrin