

What is FA?

Food and Agriculture

FA covers all aspects of research in the field of agricultural and food sciences in its widest sense. The primary aim of the Domain is to encourage networking in any research field linked to these activities as well as the related demands and needs.

In Detail

- **The biological functions of organisms.** To better understand how organisms relevant to agriculture, food and nutrition function, the Domain welcomes proposals where fundamental science is an essential component of the topic. This includes: biological science, animal science, veterinary science, plant science, microbiological science, soil science, genetics and breeding, agricultural system science or any other fundamental discipline related to food, agriculture and fisheries. Biotechnology - the use of the most recent techniques and applications that spring from their use - is also addressed.
- **Human nutrition and the food chain** covers the entire food chain leading to non-processed, semi-processed and processed foods. It also encompasses food and feed quality, food safety, functional foods, nutritional and consumer issues. It includes all the processes and techniques used in food technology that are needed to bring food to the consumer's fork.
- **Agriculture as a human activity.** The Domain addresses socio-economic aspects of food and agriculture and other relevant concerns, such as the relationships between agriculture, rural economy and rural development. Societal issues concerned with animal health (disease prevention in animals and people) and animal welfare are also included.
- **Agriculture and environment.** This relationship is also addressed by the Domain. It includes issues such as sustainability, natural resources and conservation, biodiversity and genetic resources, biosafety, bioremediation, and bioenergy. Proposals may also address changes in European agriculture under the influence of major issues such as reform of the Common Agricultural Policy, global warming, world trade patterns and energy scarcity.

Since food and agriculture involve so many scientific disciplines, it is anticipated that successful proposals will vary widely in nature from closely focused topics of a fundamental nature using the most innovative and up-to-date techniques (such as tools for genomics, proteomics and metabolomics) to multidisciplinary projects that take a more holistic approach (such as new farming systems for producing quality food).

The Domain naturally encompasses a very wide number of subjects, and relates to a large number of areas of human activity. It actively seeks innovative and interesting proposals even if they may not at first fit into a traditional category of research in food and agriculture.

COST strives for a bottom-up approach to science networking.

For more information, visit www.cost.eu



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Current COST Actions within the FA Domain:

- **869** Mitigation Options for Nutrient Reduction in Surface Water and Groundwaters
- **873** Bacterial Diseases of Stone Fruits and Nuts
- **FA0605** Signaling Control of Stress Tolerance and Production of Stress Protective Compounds in Plants
- **FA0701** Arthropod Symbiosis: From Fundamental Studies to Pest and Disease Management
- **FA0702** Maternal Interaction with Gametes and Embryos
- **FA0801** Critical Success Factors for Fish Larval Production in European Aquaculture: a Multidisciplinary Network (LARVANET)
- **FA0802** Feed for Health
- **FA0803** Prevention of Honeybee Colony Losses (COLOSS)
- **FA0804** Molecular Farming: Plants as a Production Platform for High Value Proteins
- **FA0805** Goat-Parasite Interactions: from Knowledge to Control (CAPARA)
- **FA0806** Plant Virus Control Employing RNA-Based Vaccines: a Novel Non-Transgenic Strategy
- **FA0807** Integrated Management of Phytoplasma Epidemics in Different Crop Systems
- **FA0901** Putting Halophytes to Work: From Genes to Ecosystems
- **FA0902** Understanding and Combating Porcine Reproductive and Respiratory Syndrome in Europe
- **FA0903** Harnessing Plant Reproduction for Crop Improvement
- **FA0904** Eco-sustainable Food Packaging Based on Polymer Nanomaterials
- **FA0905** Mineral-improved Crop Production for Healthy Food and Feed
- **FA0906** UV-B radiation: A Specific Regulator of Plant Growth and Food Quality in a Changing Climate (UV4growth)
- **FA0907** Yeast flavour production - New Biocatalysts and Novel Molecular Mechanisms – BIOFLAVOUR
- **FA1001** Application of Innovative Fundamental Food-structure-property Relationships to the Design of Foods for Health, Wellness and Pleasure
- **FA1002** Farm Animal Proteomics
- **FA1003** East-West Collaboration for Grapevine Diversity Exploration and Mobilization of Adaptive Traits for Breeding
- **FA1004** Conservation Physiology Of Marine Fishes
- **FA1005** Improving health properties of food by sharing our knowledge on the digestive process (INFOGEST)
- **FA1006** Plant Metabolic Engineering For High Value Products
- **FA1101** Omics Technologies for Crop Improvement, Traceability, Determination of Authenticity, Adulteration and Origin in Saffron
- **FA1102** Optimising and Standardising Non-Destructive Imaging and Spectroscopic Methods to Improve the Determination of Body Composition and Meat Quality in Farm Animals. Acronym: FAIM
- **FA1103** Endophytes in Biotechnology and Agriculture
- **TD0801** Statistical Challenges on the 1000€ Genome Sequences in Plants

Success Stories

COST Action 863 increased the competitiveness of European berry production systems. This industry can now ensure sustainable cropping with high-quality, safe and improved health benefits.

Developing tools to control stress tolerance in plants is essential for coping with the growing negative effects of climate change. **COST Action FA0605** has established an International Network of Plant Abiotic Stress (INPAS) between systems biology, whole-plant physiology, agronomy and crop breeding specialists, stimulating collaboration between experts working in various fields of stress biology.

How to join a COST Action

Scientists interested in joining an ongoing COST Action should contact the Action Chair and the COST National Coordinator in their member country (www.cost.eu/cnc).

To propose a new Action, visit: www.cost.eu/opencall. COST assesses new proposals two times a year.



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