

Research and Innovation Collaboration in the Food Industry Sector

Discussing research priorities, interests and challenges on a cross-cutting approach together with ETPs from the Food Industry, the Manufacturing and the IT sector were presented and discussed during the two EUREKA Academy events which took place at the EUREKA Secretariat on the 24th November 2011 and 19 January 2012. More than 85 people (food experts, Clusters, ETPs, Network members and other stakeholders) participated to both events

These events were a combination of presentations, plenary discussions and group discussions. Introductory presentation were made on the actual part of the methodology and the proposals from the different sides, followed by a plenary discussion, where participants proposed further subjects and then followed by further discussions in smaller groups on the same subjects – selection of the topics for the national workshops and feedback from the 3 discussion groups. The events concluded with the outcomes and agreement on the next tasks and responsibilities.

On 24th November main areas for potential collaboration were identified. In January, more attention was paid to the details and the outcomes and the subjects of interest were identified, around which presentation materials should be prepared for the national workshops, which will be carried out in February-March 2012 to generate project ideas (final dates to be announced by the HU Chair).

These areas of interest of the first Academy event included among others (the power point presentations with the results of each working group are also available):

- Efficient production systems and factory design - virtual / digital modelling
- Precision farming
- Life cycle assessment
- ICT and manufacturing-based technology solutions to improve food product features
- Small-scale effective manufacturing

The role of EUREKA network and its contribution to the generation and successful implementation of the projects was also one of the questions put forward for discussion to the working groups. The answers were various, among others worth mentioning are:

- Provide methodology for better understanding between sectors
- Mapping food chain & identifying needs, problems and expectations of food chain members related to different stages

- Identifying ICT / manufacturing technical features that are or could be available in the short/medium term and which have not been applied yet.
- Identify opportunities, explore mutual business opportunities and provide methodology for better understanding and cooperation between sectors.
- Provide workshops involving different sectors and enhancing partner search.
- Provide funding opportunities and generate longer term collaboration areas
- Design & implement a joint EUREKA campaign to increase visibility of EUREKA project benefits

The HU Chair clarified the funding situation as regards the Food technology sector based on the results of the questionnaire sent to the NPCs (and for which instruments it is available), which were also presented to the participants.

We saw on the 19th of January more interest, involvement and commitment of more EUREKA Clusters, in addition to ITEA2, in the food sector (Eurgia+, Catrene, Euripides, Acqueau and Celtic+).

The working group discussions of the second Academy event focused more on the following questions/objectives (main outcomes are listed under each question):

- 1. Please identify those main subjects, which have the largest potential for generating ideas for interdisciplinary collaboration resulting in new EUREKA projects.**
- 2. Please identify what are the subjects, for which core presentations should be developed on the state-of-the-art for the national workshops? Please indicate, if there are subjects, which are not the same as in the answer for question 1. Please specify the top 5 priorities.**
 - a. Smart and Intelligent packaging
 - b. Solutions to have efficient productions to support sustainability, defining the potential and how to inter-relate mass production and quality
 - c. Technology solutions to support healthy diet and physical activity
 - d. Personalisation of health issues, functional food: tailor-made foods by targeted processes (individualised nutrition)
 - e. Precision farming (animal and crops, fruits/vegetables)
 - f. Recycling: Decrease of waste and environmental harm (biomass production)
 - g. Bio-refinery/environmental/sustainability – maximising the bi-products of food processing to minimise waste; resource efficiency – both raw materials involved in the processing as well as material such as water, which is necessary for the processing
 - h. Use of sensors in the product and for end user appliances e.g. smart phones (potential for research across industries)
 - i. Quality tracking and tracing (knowing where your food is in the chain and its condition).
 - j. Food safety and quality – intelligent labels for quality and safety, Rapid detection of food characteristics, sensory aspects, contaminants,

- k. More efficient use of water valorisation of water – where are the challenges (both agro-food and food processing). Access to energy – getting more expensive and scarce, or renewable (decentralized) - efficient use in food processing
- l. Availability of information for small companies to know e.g. what is in the food packaging they are using (transparency)
- m. Standards for mass production, price, what is the market demand within this – are there national or European regulations in this field? Collaborating internationally means a global standard should be the ultimate goal.
- n. Web shopping for food 'amazon fresh food' could have an impact on the entire food supply chain
- o. Market opportunities, end user perspective and careful dissemination is important.
- p. Consumer choice – information provided, ethical choices; knowing why a consumer chooses one product over another
- q. Applications of new business and service models, need for food industry for solutions available from other sectors

3. How can the EUREKA network contribute to the generation of good project ideas at national level and effective meeting of the partners before the event in Budapest in April?

- a. List of different funding schemes and suppliers available (finding companies interested in developing new solutions with ICT partners) as well as clear list of deadlines for proposals
- b. Summaries (max 2 pages) on the functions/benefits provided by the solutions and the problems to be solved
- c. Design and implementation of a joint EUREKA campaign to increase the visibility of EUREKA project benefits and further disseminate information to other multipliers
- d. Perusing core presentation materials in different international conferences
- e. Maintaining and intensifying cooperation with other sectors beyond the HU Chairmanship, and introduce them to local food industry (i.e. further consultation between Umbrellas, Clusters and ETPs.)
- f. Use demonstrators to showcase technology and attract industry. Here Clusters could present ideas / challenges in forums to get other actors on board and attract companies
- g. Prepare a glossary and mapping exercise on what other actors are doing at regional/national level?
- h. Do food producers publish 'roadmap'-type document that EUREKA could use in strategy development?

4. What are the main hurdles?

- a. How to finance the projects and how to mobilize the national funding opportunities?
- b. Proposal writing
- c. Visibility and differentiation of EUREKA from other EU funding schemes
- d. More support for cross-disciplinary actions from the research policy side
- e. Legislative obstacles
- f. Cooperation between companies – bottlenecks
- g. Getting support from industry (EUREKA Clusters are industry-driven and results-oriented and would need to have a concrete motivation to get involved – they are yet to be convinced)
- h. Having more inspiring ideas that can be sold to end-users (customers) who can simultaneously influence the suppliers (retailers/distributors)