NEXTFOOD

Educating the next generation of professionals in the agrifood system

NEXTFOOD will contribute to a transition to more learner-centric, participatory, action-based and action-oriented education and learning in agrifood systems, which are becoming increasingly complex and require an increasing range of "hard" and "soft" skills. The objectives are to

- (O1) identify the skills needed for a transition to more sustainable farming and food systems,
- (O2) develop and test relevant curricula and training methods,
- (O3) assess existing policy instruments for the training and education sector,
- (O4) develop tools for evaluating quality of the training and education sector,
- (05) develop a platform for knowledge sharing.

NEXTFOOD will employ case-based action research to

(I)   develop relevant and effective education and training programmes for a transition to more sustainable agrifood systems,

(II)   generate new knowledge needed for similar achievements beyond the specific case.

The *case development (I)* will rest on a cyclic, iterative, participatory process consisting of

(1) observation and description of the current situation in each case,
(2) visioning of a desired future state,
(3) analysis to identify key issues, solutions, supporting and hindering forces etc.,
(4) elaboration and discussion of action plans,
(5) implementation of plans,
(6) iteration of steps (1–5) in a cyclical manner throughout the course of the project.

Simultaneously, *research (II)* will be done on qualitative and quantitative data generated during the case development process and analysed to answer research questions that are relevant beyond the specific case. This will produce new knowledge needed to drive the transition to the learning strategies required to educate and train professionals that can meet the very complex future demands in the agrifood sector.

The main research questions of NEXTFOOD are:

1. How can participatory and action-oriented learning strategies focusing on competences required to foster more sustainable agrifood systems, be designed and implemented?
2. What are supporting and hindering forces for such alternatives to establish and develop successfully?

Case name and name of contact person/leader

NEXTFOOD –future agrifood professionals' competition

ISEKI-Food Association – Vienna (Gerhard Schleining and Line Friis Lindner)

Brief description of the case

In the NEXTFOOD supply chain innovation competition, the learning goals are to develop and improve participants' practical knowledge and soft/transversal skills in identifying, designing and developing solutions to real processing- and food industry-related problems in order to meet the current requirements of professional skills on the job market. After completion of the activity, the participants will have deepened their knowledge of the particular problem/topic and gained practical experiences in team work, problem solving and written and communication skills.

The competition game will be open to teams of NEXTFOOD partner institutions as well to other organisations of European and non-European countries on finding the best solutions to one specific process – and/or agrifood-industry- sustainability problem. Teams will be built representing different stakeholders along the food supply chain and involve, depending on the case topic, different stakeholders such as students, academia/researchers and business representatives relevant for the defined case.

The competition game will be complemented by a series of webinars and e-learning material to support the project development and two virtual workshops (after acceptance and in the middle term) coordinated by experts on the selected topics of the competition and presentations of best practices.

The project per sè will involve the identification, design and development of solutions and ideas to meet the specific issue/topic defined for the specific competition by the team of participants/trainees, without or with (optional) the development of practical experiments in their own organisation. In this innovative and engaging approach to education, participants will improve specific knowledge to solving real practice-oriented challenges and soft/transversal competencies needed for efficient team work in an international and competitive environment.

Teams are asked to submit their project as written report and as presentation (ppt or short video) that will be presented in a final virtual workshop. Winning teams will be selected based on innovation and quality criteria and awarded with prizes from sponsors.

The competition will include the following steps:

1. Creation of a competition scientific board made of HE, agrifood association and industry representatives that will coordinate the competition activities (selection, acceptance of the teams, evaluation of the projects).
2. Identification and selection of the topics in the food processing sector on which teams will compete in finding the will be identified within the project activities framework (WPs 1 and 2).
3. Design and development of training material (learning outcomes, contents) and definition of the series of webinars on the selected topic. The training materials will be implemented as an e-learning course and will be placed in the e-learning platform of the ISEKI-Food Association and in the on-line platform and in other dissemination activities developed in the NEXTFOOD project (WP6). IFA will coordinate the development of the course, lead the piloting, guide students and trainers and collect the feedback. The course will apply for the IFA Quality Award for short courses "EQAS-Food Certificate" *(https://www.iseki-food.net/accredidation) (WPs 1 and 3).*
4. Development of final rules, procedures, and timing of the competition (*in parallel to step 3*)

5. Open call for competition
6. Registration and acceptance
7. Training and webinars
8. Collection of the project reports and evaluation
9. Final virtual workshop
10. Evaluation feed-backs from teams

The competition will be carried out at least four times on different topics that will be defined within WP1 and WP2 and the concept will be further improved between the four rounds. The topics will focus on issues along the whole food supply chain and in particular those related to food processing and primary production which are mandatory; optional are also issues from distribution and retail up to consumer.

The framework developed within this training-competition each team is aimed to improve specific knowledge and competences on industry/food sector aspects as well as soft/transversal skills in an international environment. Participants working in multisector and interdisciplinary teams will also improve and enhance the cooperation between them and the awareness of the importance and benefits of team working in a competitive environment.

Based on the learning outcomes of the two previous activities, guidelines on policy recommendations for the agri-food knowledge and innovation system will be prepared. (WP4).

This competition takes as reference the first edition of the student's competition game "FoodFactory-4-Us" launched in 2017 by IFA within an Erasmus+ KA project (https://www.food-sta.eu/FoodFactory-4-Us-International-students-competition-game) open to master students in teams. Participants were asked to submit a project proposal to specific industry oriented "hot issues" and during the competition time they were supported in the development of the project by tutors and competition organisers. Evaluation was carried out by a board of experts (university, industry, associations).

How will the case contribute to achievement of the NEXTFOOD objectives by action research as the main strategy?

The case will be an arena for achievement of

- O1: through using actual and real cases and needs (knowledge, skills and competences) from different stakeholders of the food value chain, like farmers, food processors and consumers,
- O2 through an innovative training method where the participants – the future agrifood professional - develop competencies and life-long learning
- O4: through the contribution for development of criteria for quality assessment of practice-oriented research and education
- O5: through bringing together different actors in the agrifood chain

How will the case study provide evidence to answer the NEXTFOOD research questions?

1. How can education and training initiatives emphasizing participatory, experiential and active learning contribute to more sustainable farming and food systems?

The competition has the aim to allow participants from the agrifood sector to learn in an active environment and develop "by playing" specific competences and skills on tools and actions to improve the sustainability of farming and food systems. The interdisciplinarity and multisectorial framework of the training-competition will promote action competency in complex agrifood systems.

The topics can come from the participating organisations or can be selected from a list suggested by the scientific board based on the project outcomes. This will guarantee that the topics are of actual interest.

2. What are the supporting and hindering forces for such alternatives to establish and develop successfully?

The first edition of the FoodFactory-4-Us, open to any student's team interested was successful with 15 teams of Master students registered from 9 EU and no-EU countries. The direct involvement and interest of the universities, organisations, farmers and industries and their interest in collaborating in the improvement and upgrading of the skills in an action learning is of main importance.

Besides specific benefits /award for the (or more) winner or selected teams, as part of the professional training or HE study programme, students/trainee's teams may require a recognition of their participation at the training/competition by their own organisation or institution (if students) that has to be defined during the preliminary steps (in particular, step 4) of the project.

When do you plan do run the first cycle (starting and ending dates) of the educational activities (courses, seminars etc.)?

Preliminary schedule 1st cycle:

1. 31 July 2018: Creation of a competition scientific board made of HE, agrifood association and industry representatives that will coordinate the competition activities (i.e. selection, acceptance of the teams, evaluation of the projects).
2. 31 August 2018: Identification and selection of the topic
3. 15 September 2018: Design and development of training material (learning outcomes, contents) and definition and planning of the series of webinars on the selected topic. In parallel, development of final rules, procedures, and timing of the competition.
4. 15 September – 15 October 2018 : Open call for registration of the teams
5. 15 October 2018: acceptance of the teams
6. 15 October - 31 December 2018: Complementary trainings and webinars
7. 15 January 2019: Collection of the project reports
8. 15 – 31 January 2019: evaluation of the project reports by the scientific board
9. 15 February 2019: Final virtual workshop
10. 28 February 2019: Evaluation feedback from teams

What is the planned (expected) number of learners (students, farmers, etc.)?

The first edition of the FoodFactory-4-Us, open to any student's team interested, was successful with 15 teams of Master students registered from 9 EU and no-EU countries. The second edition (running until 7 June 2018) has 11 registered student teams of master students from 7 EU countries and 4 non-EU countries. Each team has between 3-5 team members.

For the NEXTFOOD –supply chain innovation competition we expect between 10-15 teams

What is the level of the course(s)? (BSc, MSc, other)

Teams must be made of 3-to-5 (min-to-max) participants.

Teams will be built representing different stakeholders along the food supply chain and involve different stakeholders such as students, academia/researchers and business representatives relevant for the defined case. Students must be enrolled in a master degree programme.

Who will be the teachers/learning facilitators?

The competition will be coordinated by IFA who will act as project manager and as point of reference for the teams (with questions directly related to the competition). Besides this role, depending on the case topic, there will also be an expert involved to be the point of reference for content-related questions/issues.

A series of complementary trainings and webinars will be organised drawing on several stakeholders (HE teachers, business representatives, farmers, etc.) depending of the competition topic but also interdisciplinary trainings supporting the development of soft skills.

A description of the 'learning arenas':
Where will the activities take place, what will be the processes to enable co-learning between teachers, learners (students, farmers, etc.) and research persons in society (farmers and others)?

As the **NEXTFOOD –future agrifood professionals' competition** is a virtual competition game, all guidance and complementary trainings will be held online using the GoToWebinar tool. Some meetings will be held only for the competing teams in an online class-room setting where the teams have the possibility to ask questions directly related to their project to the project manager and the expert(s). Besides this, the complimentary trainings on topics directly related to the topic of the competition will be given as webinars open to the whole NEXTFOOD consortium – and thereby also to participants of the other case studies – and to the wider public.