EDUCATING THE NEXT GENERATION OF PROFESSIONALS IN THE AGRIFOOD SYSTEM

NEWSLETTER

Issue 7 / 2021

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 771738

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PROLOGUE

Welcome to the seventh issue of the NextFOOD newsletter

*by **Martin Melin**, NextFOOD coordinator, SLU*

Foreword

A transition towards a more sustainable society will require that we think and act in fundamentally different ways. The important role of education in fostering coming generations to take ethical and responsible action with a healthy planet in mind, is emphasized by UNESCO in the report "Education for Sustainable Development Goals". In the UNESCO report, a set of cross-cutting key competencies for sustainability is highlighted, among them systems thinking (going to the roots of the problems), collaborative competency (learning together with others) and critical thinking (to question norms, practices and your own values). The report states that these are competences that cannot be taught (for example by listening to a lecture) but have to be developed by the learners themselves in action-oriented learning activities. This is in line with the educational approach of the NextFOOD project and you can read about some of our initiatives in the 7th newsletter where we present the progress and some outcomes of the project. Although it has been complicated times for project implementation, we have seen a high level of activity in NextFOOD. These are some of the things that are going on:

- At present we are up-dating the NextFOOD inventory of skills by analysing the results of a survey where 400+ value chain stakeholders responded. It will give us a detailed view on what skills that will be needed by various professional groups in the value chain.

- By using methods form the field of informatics we are analysing data from EU higher education websites, including course descriptions and syllabi, which will give us the possibility to identify the gaps of skills and competences in existing education within the agrifood and forestry sector.

- Since we cannot meet physically, we have introduced peer-learning groups where case representatives meet and share experience on topics like quantitative data analysis, stakeholder involvement and skills assessment. These groups are self-organized and contribute to build a learning community.

- Before the summer we can expect an updated version of the NextFOOD educational strategy and a case development report that will bring to our attention to hindering and enabling factors for introducing action-oriented sustainability education.

- Previously we have identified the shortcomings of policies related to agrifood and forestry education in the EU. Since then, we have performed a number of multistakeholder workshops in order to develop strategies for policy improvements in this area. A report presenting the outcomes of these workshops can be expected this spring.

- We have finished the first pilot tests of an assessment framework for societal impact of education. The testing is now entering the final phase by adding a third pilot study.

I wish you a pleasant reading!

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NEWS FROM NEXTFOOD PROJECT

Knowledge Bank of NextFOOD project

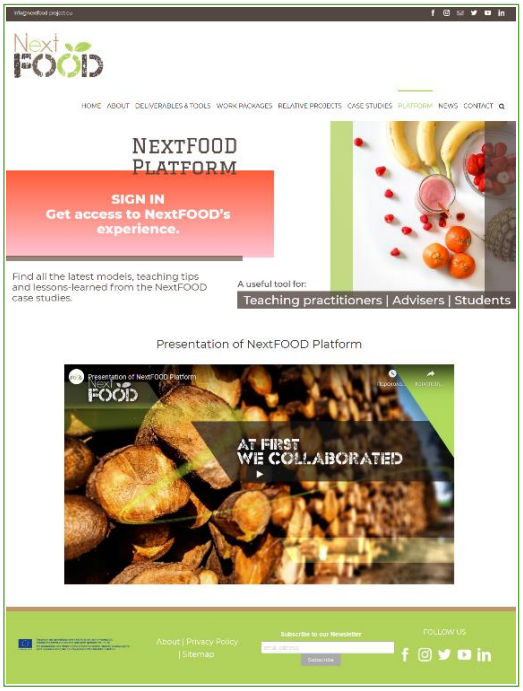
*by **Daphne Kapsala**, Project Coordinator, ACRCM*

The **NextFOOD Project website** incorporates a platform with free subscription access where the current results of the project including teaching tips and learning materials is being presented for teaching practitioners in the field of agrifood and forestry and other targeted audience.

All partners engaged on spreading legal content through transparency and responsible behaviour and to protect the core values.

The **NextFOOD Project platform** is the most powerful tool to ensure the connection of the project partners with the actual target of their work. It includes comprehensive information about the project activities, partnership, case studies and news from each one partner country. In figures, the platform contains the following information:

- 15 deliverables
- 26 practical abstracts
- 12 case studies
- 16 articles on studies, news and events
- 6 press releases
- 3 non-scientific materials
- 1 tool for gender sensitive information
- Detailed description of 8 WPs of the project
- Detailed description of 19 project partners



In order to ensure the correct use of the platform but also to maximize its impact, Agronutritional Cooperation Region Central Macedonia had created a **5-minute duration tutorial video** with explanations on how to use the platform and its tools and which are its main services.

Watch our *tutorial video* of NextFOOD Platform: https://youtu.be/gQf79XvibS8

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Furthermore, AC RCM produced **a video spot** in order to disseminate the platform over the social media and increase the awareness raising impact.

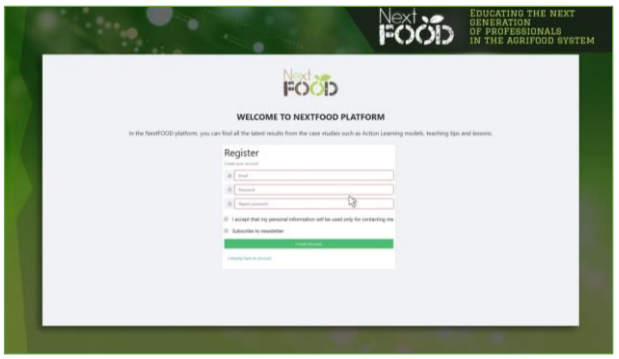
Watch the *spot:* https://youtu.be/1lNpM50PsY4

Currently in the NextFOOD project Platform has been registered 424 active users.

The knowledge-sharing platform is a technology enabler for social knowledge co-creation and innovation diffusion, thus providing the space for multi-actor action learning within communities of practice.

The on-line platform is an operational and communicational tool in order to disseminate experience from:

- Case study reports
- Models
- Teaching tips
- Lessons-learned
- MSc Theses
- Best Practices Abstracts
- Event subscription
- Project calendar



SIGN IN:

https://platform.nextfood-project.eu/

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Building a future science and education system fit to deliver to practice

*by **Maria Soumelidou**, Communications Coordinator, AFS*

The Global changes pose important challenges to our generation from an environmental, social, and economic scope. The scientific community consensus moved on from accepting the human-induced climate change to the irreversibility of its effects. These effects are expected to pose great threats to the agrifood and forestry systems such as extreme weather events and shifting climatic zones. At the same time, the global population continues to grow and is expected to reach 9.7 billion in 2050. This growth goes hand in hand with a rise in demand for food, energy and other goods which originate from agricultural and forestry production.

Thereby, the cultivation of renewable raw materials as suppliers of renewable raw materials for various technical applications is crucial. In order to meet these new challenges, the use of high-tech in fields and barns, new methods of plant production, computer use and other innovations needs to be implemented into the work of the farmers in the future.

The transition towards more sustainable agriculture, forestry, food and bio-based value chains, equipped to face the challenges ahead, requires a renewal and strengthening of the technical and soft skills of all concerned along the value chain from researcher and educator, farmer, industry, end-user and policymaker.

It is therefore critical to design educational systems that prepare budding current or upcoming professionals with competencies to push the green shift in our rapidly changing society.

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The overall aim of NextFOOD to generate an innovative European science and education roadmap for sustainable agriculture along the value chain will be better communicated to the stakeholders and the society in general, through an almost 2 min animation clip. Its makers wanted to concentrate in those two minutes the diversity in knowledge and the project's participants who represent the whole chain form field to shelf in 4 continents depicting the overall aim of NextFOOD project and the challenges that the above-mentioned global changes pose to our generation.

Watch our video:

https://www.youtube.com/channel/UCEjsZeXhtM_S3kju-iWLUww

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NEWS ABOUT EDUCATION & TRAINING

Lessons from transforming physical meetings into digital ones

*by **Malin Juter**, Skogforsk*

Skogforsk the Forestry Research Institute of Sweden is running a case aiming at a higher understanding about logging techniques, strategies, and methods to increase quality and number of micro-habitats in production forests. Our case is conducted as a vocational course for forestry professionals.

The group consists of researchers, machine operators and their supervisors. A group that is truly based on traditional learning. The machine operators are used to the existence of one transmitter, and they are the receivers. In this case we wanted to discover what more value it can give both researchers and machine operators in circular learning.

In order for the machine operators to feel safe in the situation and have an easier time sharing their knowledge, we came to the conclusion that if we meet the machine operators at their home arena. The meeting would have the best conditions to be rewarding for all parties.

Our original plan was to meet four times in the field during a year. The meetings would be 4-5 hours long so that there would be time to get to know each other, discuss and learn from each other out in the forest in real conditions.

We managed to have one meeting before the pandemic swept the world. We quickly had to rethink, and the next meeting went digital, where we all met behind a screen.

We noticed that it was difficult to have a good dialogue with everyone in the group via the digital meeting. Even the technology with poor connectivity, batteries ran out did not make things better. How do you get to know someone behind a screen? Where does the small talk end up when you do not gather around a common coffee table? How do you get everyone to talk when you don´t have eye contact and can feel the atmosphere?

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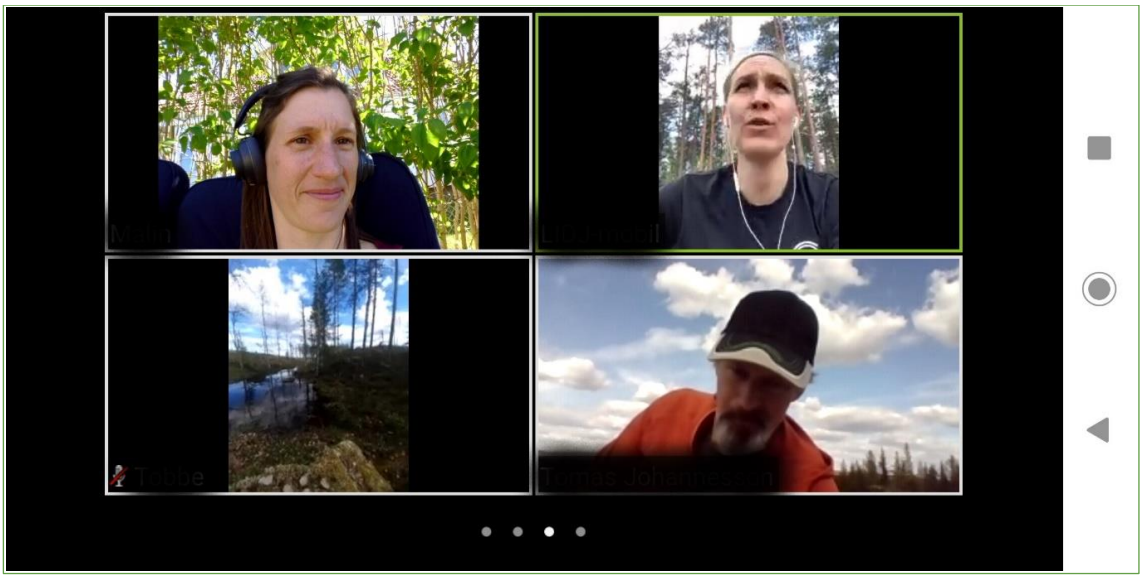
As our four meetings were scattered throughout the year, there was a long time between the meetings, and we started a chat on our phones to keep the dialogue going. But it is hard to stay focused. Much that happens to everyone involved some in the group change jobs, went on parental leave, had a holiday. So, when it was time for the next meeting, the people were not the same and our hesitant about the next meeting grew and how we would set it up. We are still working on that question, but what we have learned so far:

- Going digitally, short regular meetings are preferable. It is important that it is included from the beginning as many calendars are fully booked and there is little chance of rebooking.

- In our case several short meetings with discussions in small groups to absorb knowledge but also get to know each other would have been better. Even though we were ten in the group, not everyone gets to speak, but dividing into groups of three to four is good to get everyone talking.

- As our “students” are professionally worked and the companies they are employed at have a high focus on productivity, it is incredibly important to discuss the benefits of the case before each learning cycle so that the “students” has time to participate.

To be continued….



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Creation process of an Agroecology Master Program at the University of Chile

A new NextFOOD Case Study in Latin America

*by **Claudia Rojas** Assistant in International Collaboration Networks and **Osvaldo Salazar**, Director of Postgraduate School Faculty of Agricultural Sciences, UCH*

The postgraduate School of the Faculty of Agricultural Sciences jointly with a group of researchers from the University of Chile have been working during 2020-2021 on the creation process of a new Master Program in Agroecology (MPA). The MPA seeks to contribute a new vision to agriculture and agroecosystem research in Chile. There are more than 20 national universities that teach agricultural sciences, most of which share a focus on productivity destined to export agriculture, leaving aside agricultural production for internal consumption, such as those of farmers and indigenous communities with the consequent loss of local knowledge and agrobiodiversity. From the same perspective, few agricultural sciences faculties manage to generate an inclusive vision of sustainability, which is reflected in the scarcity of public policies for sustainable development that reflect the needs of multiple sectors.



The main aim of the program is form graduates with competencies to:

Design sustainable agrifood systems, considering food security, nutrition, and biodiversity safety within the food production.

Solve problems in sustainable agriculture from an agroecological perspective, with an interdisciplinary integration of biophysical, ecological, socio-economic and food components.

During the creation process an idea borne looking to apply some of the NF project outputs from WP1-WP2-WP3 into the MPA, with the aim of contributing to the project objectives using an action-research methodology and sharing the results with the other NF project partners. Consequently, the **new Agroecology master program at UCH will be a case study into NextFOOD project**, giving UCH the opportunity to bring new perspectives and educational methodologies into the curriculum, teaching strategies and classes. This is also a good option to keep expanding NextFOOD experiential learning into more parts of the world, like Latin America.

The UCH team is committed and glad to be part of this new challenge and we hope to contribute through this case study to the main objectives of NextFOOD.

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NEWS ABOUT CONFERENCES/EVENTS/WORKSHOPS

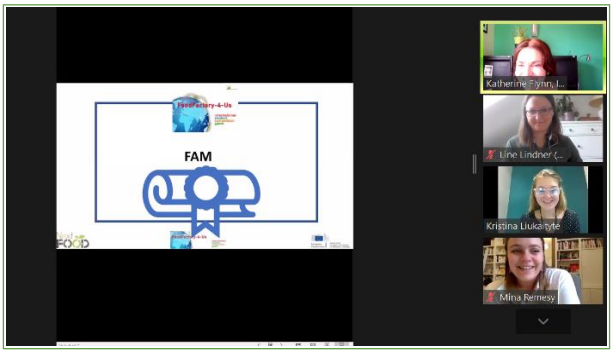
Team FAM Wins FoodFactory-4-Us International Student Competition Game in Valorizing Food Biodiversity

*by **Katherine Flynn**, Project Manager, ISEKI*

The team FAM project, ***"Reverse and Diverse: Reverse food waste to probiotic food, improve health and diverse diet in Nigeria"*** clinched the first-place finish at the FoodFactory-4-Us Competition's Final Virtual Conference on 18 February 2021. Team members Kristina LIUKAITYTE and Mina RÉMÉSY gave the winning presentation which included contributions from team members Ishak EL KHATIB, Abayomi Emery AGUNBIADE, and Senthamizh Priya NAGARAJAN, all from Audencia Business School in Nantes France and guided by Faculty Advisor, Mihalis GIANNAKIS. Reverse and Diverse outlined the challenges of tackling fruit and vegetable waste in Nigeria and proposed a solution of probiotic fermentation which could utilise this waste while providing income and a nutritious beverage.

Nine teams from around the globe (31 students) participated in the 4-month online FoodFactory-4-Us competition addressing the valorisation of food biodiversity at any point along the food chain. Teams identified a specific problem, then designed and developed an industry-exploitable solution. They attended 6 online trainings which followed action learning methods to focus on the core competences of dialogue, participation, observation, reflection, visionary thinking, and facilitation. An Advisory Board of academic and industry experts evaluated the projects, including at the Final Conference where team members answered audience questions. All 9 teams that completed the competition had excellent projects and only a few points determined the winners.

Winners to present at the ISEKI-Food 2021 Conference and at the NextFOOD final project meeting



The winning team won a free conference registration for the ISEKI-Food 2021 conference in late June 2021 where they are guaranteed a presentation of their winning project in the Biodiversity session, and €300, both sponsored by ISEKI-Food Association. They also will be invited to present their project at the NextFOOD final project meeting scheduled for April 2022 in Brussels.

This competition in Valorising Food Biodiversity was the 3rd cycle of the series organised by ISEKI-Food Association as one of the case studies of the NextFOOD project. Visit the FoodFactory-4-Us Sustainable Supply Chain Competition site for more information, including on the next competition planned for autumn 2021.

Want to know more? Contact Team FAM at reverse-diverse@gmail.com

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PRACTICE ABSTRACT

Strengthening farm communities through education involvement

*by **Åsmund Lægreid Steiro**, NMBU*

*edited by **Katherine Flynn** and **Line Lindner**, ISEKI*

Farm size increases across Europe, and simultaneously farming communities shrink. Large farms may be more challenging to manage in accordance with sustainable farming practices, and farm managers are often not in a position to hire employees to cover such a need. There is however a potential solution to this challenge. Research shows that strong farm communities, modern advisory services and access to information makes it easier for individual farmers to practice farming in accordance with guidelines for sustainable farming practices.

In the NextFOOD project, we aim to shrink the gap between research, education, and farming. We know that by involving students in action-oriented, real-life projects throughout their studies, they become much better prepared for working in those same real-life environments after graduation. In our project we study processes where students collaborate with stakeholders in society (farmers, food processors, policy makers, etc.). Based on reports from those stakeholders, we see that these collaborations are also very beneficial to them. This is so, because the students bring new information in addition to facilitating establishment of stronger communities by hosting meetings and workshops. Based on our experiences, we encourage all stakeholders in agrifood and forestry systems to engage with students, academics, and advisors as much as possible. By bringing the education back into the fields where the real action is, we can hopefully strengthen our vital farming communities!

To read more about **NextFOOD Case#1**, please click:

Case 1: Agroecology: Action Learning in Farming and Food Systems – NextFOOD

You can also find interesting **Practice Abstracts** like this one **here**

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Farmers as teachers of Agroecology

*by **Ritam Bhattecharya, Anshuman Das** and **Parthiba Basu**, University of Calcutta, WHH*

*edited by **Katherine Flynn** and **Line Lindner**, ISEKI*

During the 3-month certificate course in Agroecology at the University of Calcutta, target students act as farmer trainers and extension workers. The backbone of the course is for students to understand the social, economic, and ecological challenges faced by smallholder farmers and looking for options to address those challenges.

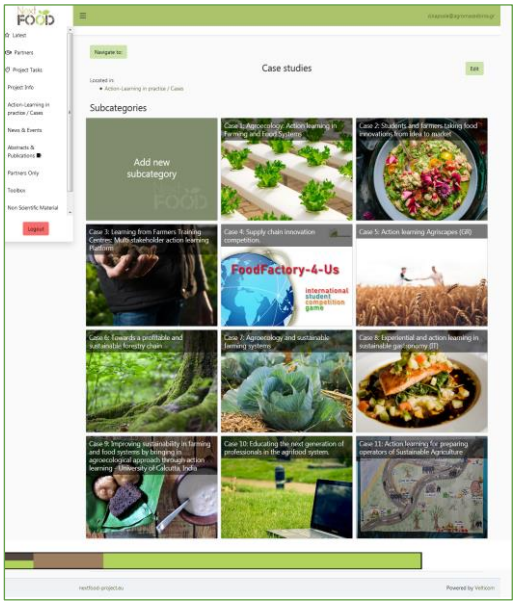
The students engage in multiple forms of interaction with the farmers. At the beginning, students are staying at farms which are well-established zero external input integrated farms to learn from farmers about planning, techniques, practices, interaction with the market etc. Interaction is free flowing but also structured in the sense that farmers are already oriented to making the students work on the farm, explain about farm planning, resource flow etc.

A few weeks into the course, students are again staying with the farmers to assess the challenges through various Participatory Resource Appraisal (PRA) tools.

And at the end, students are again sent to the same farmers to test some solutions together. Farmers give their feedback about students' performance as to their eagerness to learn, inhibitions in staying and working on the farms, and as regards engagement.

Main practical recommendations:

Acting as farmer trainers and extension workers, students learn that:



- farmers communicate and express themselves differently than the way in which they may be used to,
- observation is key to ask questions to farmers,
- it is good to plan the day together with the farmers,
- it is important to stay and have food with the farmer's family,
- keeping a student's diary about the farm work is helpful.

It is important for each of the students to summarize the everyday learning and present it to the larger group of students.

To read more about **NextFOOD Case# 9** - Improving sustainability in farming and food systems by bringing in agroecological approach through action learning, please click **here.**

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Terms

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For the next newsletters:

Issue 8/2021 will be published in June 2021

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