EIT HEI Initiative

Innovation Capacity Building for Higher Education

European Institute of Innovation & Technology

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D4.2 Phase 2 NOBALIS Entrepreneurial and Innovation capacity development programme

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acceleration type of programme supporting the **development of initial ideas related to new products/services in food, biotech and bioresources towards valid business models**. The participants are students (all levels) and staff members (both academics and non-academics) from Norwegian University of Life Sciences (NMBU), Estonian University of Life Sciences (EULS), Latvia University of Life Sciences and Technologies (LLU), Linnaeus University (LNU) and Swedish University of Agricultural Sciences (SLU). On top of that, mentoring is also supported to startups/ scaleups in the NOBALIS countries (Estonia, Latvia, Sweden and Norway).

About the EIT HEI Initiative

The EIT HEI Initiative: Innovation Capacity Building for Higher Education has been designed with the aim of increasing the innovation and entrepreneurial capacity in higher education by bringing together HEIs in innovation value chains and ecosystems across Europe. A central philosophy of the EIT is the integration of the EIT Knowledge Triangle Model into all its activities. HEIs selected to participate in the HEI Initiative will also leverage and use the Knowledge Triangle Model as an enabler, facilitating the creation of systemic, institutional change. Additionally, HEIs selected to participate in the HEI Initiative will contribute to and leverage Smart Specialization Strategies, the Regional Innovation Impact Assessment (RIIA) Framework, as well as align to the goals of the EIT Regional Innovation Scheme (EIT RIS). This will strengthen the links between HEIs and their local and regional ecosystems and provide an impetus to leverage additional funding sources beyond the HEI project funding period of the selected HEI projects.
HEIs are encouraged to prepare applications which will support the development and implementation of six Actions in their institutions, cumulatively leading to institutional transformation, an increase in entrepreneurial and innovation capacity, and integration with innovation ecosystems.

1 OVERVIEW OF THE IMPLEMENTATION OF THE NOBALIS EICD programme

Focus, goals and general setup of the programme.

The EICD programme forms work package 4 (WP4) of the NOBALIS project, led by Baltic Innovation Agency (BIA). Over the course of the project, the program is run in **three online editions, each for 3 months**. The 2nd and 3rd edition of the programme was conducted in Phase 2 of the project (July to December 2023, and January to July 2024). The lessons learned and feedback from the previous edition has been considered in preparing the second programme edition. Each edition started with a hackathon and matchmaking event, followed by focused activities for students, staff members, student-staff teams, and start-ups (the core programme includes three intense training and mentoring days, including 2-3 joint presentations by experienced mentors, followed by 1:1 mentoring for the teams and individual work in between the intense development days). The 3-month programme ended with a final event: Demo Day, bringing together all participants and external parties from the partners´ ecosystems. The programme is conducted online (Zoom platform used) to facilitate the participation of people from different countries taking into account travel costs as well as environmental concerns related to travelling.

The **main goals** of the EICD programme are to:

- support the development of the initial ideas of students related to new products/services in the focus fields **towards valid business models** (*student track*).
- **increase the capacities of staff** (academic and non-academic) related to innovation management with the help of experienced mentors, and facilitate exchange of related best practices (*staff track*).
- Facilitate student-staff collaboration in innovation activities and provide **focused support on student-staff teams** (staff members are asked to propose their own ideas/ challenges that students can connect with, so that student staff teams are formulated).
- **Supporting existing start-ups** linked with the participating HEIs' ecosystems via focused 1:1 mentoring by leading experts (researchers, industry representatives).

Key topics covered in the programme.

- sustainable product development and minimum viable product
- branding and sales
- fundraising (both public and private financing)
- pitching training and presentation skills.

1.1 Overview of implementation of WP4 tasks

T4.1 Preparation and selection of participants
Task Leader: Baltic Innovation Agency (BIA)

Task as planned in the application.
This task focuses on the **administrative setup** of the programme and identifying/attracting/selecting participants from among all target groups (students, academic staff and non-academic staff, startups) in the programme thematic focus area: food, bioresources and biotechnologies. Participants will be identified via an **open call published ca. 1 month before the start** of the programme.

Reflections on implementation
T4.1 was realized as planned. The open calls were published one month before the hackathon, via the NOBALIS universities´ relevant channels (mailing lists, newsletters, social media, etc.). In addition, the representatives of NOBALIS HEIs involved in WP4 promoted the programme in relevant lectures, meetings with students, etc.

T4.2 Hackathon and matchmaking event
Task Leader: Swedish University of Agricultural Sciences (SLU)

Task as planned in the application.
The EICD program starts with a joint hackathon and matchmaking event (HME), focused on idea generation and team formulation. Participants can join with business ideas and teams, or present an idea to find team members among participants without as-yet formulated ideas or teams. The ecosystem (incl. industry) will also supply challenges. For stronger collaboration between students and staff in I&E activities, student-staff teams will be formulated.
The HME will include:

- **inspirational presentation**s by entrepreneurs and/or examples of successful student-staff collaborations in the fields at focus
- **presentation of initial ideas** by participants
- **team formulation** and **idea development** in teams
- **pitching** session

The best teams will be invited to continue their work in mentoring sessions.

Reflections on implementation
The hackathon and matchmaking events for the 2nd phase took place on 4 October 2023 and 6 March 2024. Over 50 persons registered to take part in both events, proposing in total 24 ideas during the 2nd programme and 35 ideas during the 3rd programme hackathon. For the first event 3 ideas were initially submitted from EMU, 3 from LNU, 3

from NMBU and 15 from SLU. For the second hackathon 7 ideas were initially submitted from LLU, 1 from LNU, 1 from NMBU, 13 from EMU and 13 from SLU.

In sum, the HME was carried out successfully and as planned. After the hackathon, all participants – as well as persons that were not able to participate in the HME – had a chance to fine-tune their idea and present their Idea Templates (a pre-defined template for describing the idea and team). For the first 2nd edition 10 idea submissions were received in total and for the 3rd edition 20 idea submissions were received.

The jury/ selection committee evaluating the idea submissions included one representative by each NOBALIS partner. The selection criteria included:

- **Strength of the idea** (the idea has potential, is not too vague, can be developed further in 3 months
- **Strength of the team** (at least 2 members in the team, enthusiasm and skills of the team representatives, coachability)
- **potential for adding value via the NOBALIS programme** (we can see that the programme can help the team, the idea is not to early nor too mature for our programme, we are able to provide the right mentors for the team, etc.)

Based on the summarized results of the jury evaluation (an online Excel tool was used for this), 9 student teams were selected to be invited to take part in the 2nd mentoring programme and 13 student teams were selected to be invited to take part in the 3rd mentoring programme (The team descriptions can be found in a chapter below).

T4.3 Student track: mentoring sessions

Task Leader: BIA

Task as planned in the application

The HME event is followed by 3 intense development days (min. 6 teams of 2-3 people). Each day will include 2-3 joint presentations by experienced mentors, followed by 1:1 mentoring for the teams. Key topics covered: sustainable product development and MVP, branding and sales, fund-raising (public and private), pitching training and presentation skills. Mentors will be recruited in the partners' networks and the Buildit mentor network (200+ experts from all around the world). Each development day will include a PPP (progress-problems-plans) session of the teams for progress review and peer learning.

Reflections on implementation

This task was implemented as planned.

The three intense development days took place as follows:

I Intense development day: 18 October 2023 & 20 March 2024, 13:00 – 16:00 CET
Topics covered:
1) Business model development
2) Marketing and sales
Additional 1:1 mentoring took place during the two weeks after the development day;
Individual work: filling in the Business Model Canvas

II Intense development day: 8 November 2023 & 3 April 2024, 13:00 – 16:00 CET
Topics covered:
1) Sustainable Product Development and Design, MVP
2) Impact management and measurement
Additional 1:1 mentoring took place during the two weeks after the development day;
Individual work: developing and testing each team´s MVP, plus developing an updated 3-minute pitch for the pitching training.

III Intense development day: 30 November 2023 & 18 April 2024, 13:00 – 16:00 CET
Topics covered:
1) Financing for the development of the teams´ ideas
2) Engaging investors
3) Pitching training
Additional 1:1 mentoring took place during the two weeks after the development day;
Individual work: developing the final 3-minute pitch for the Demo Day

T4.4 Staff track: mentoring sessions
Task Leader: Ard Innovation (ARD)

Task as planned in the application
The staff track will focus broadly on **good practices related to innovation management** and **commercialization** of early-stage innovations in R&D activities. The key target groups here are **academic staff** interested in practical applications of their research; academic staff in charge of innovation management courses; research impact teams; and **non-academic staff** supporting innovation processes.
As in T4.3, there are 3 intense mentoring days (topics and mentors defined by the needs of the participants) and peer-learning sessions. Participants are not selected via the hackathon event; they will be found in collaboration with all involved HEIs via an open call for participation.

Reflections on implementation
In phase II of the NOBALIS project, it was decided to split the staff track from the student track. running the staff track as a separate parallel mini-programme inside the EICD programme. This was done to ensure that the staff-teams got mentoring that fit their case as good as possible and to better fit the schedule of the staff to be

mentored. The mentoring was performed through several meetings/workshops, between the mentors and the mentored team. The mentoring followed this general setup, with minor adjustments to fit each team:

1. Initial meeting to get to know each other and plan the best approach for the mentoring of each team.
2. Focus on insight phase with to achieve on product market fit and the tools to get there
3. IPR (patenting, design protection, trademark and trade secrets)
4. Financing and pitch deck

In phase IIA of the staff-track programme, Ard Innovation mentored two teams from NMBU, one team from SLU, one team from EMU and one from LBTU. The teams consisted of both academics and non-academics. In phase IIB of the staff-track programme, Ard Innovation mentored 3 teams from NMBU. The teams consisted of only academics, as it was difficult to find teams who included non-academics.

The consortium agreed that Ard Innovations experience of supporting researchers is valuable for the other universities without a well-established or functioning TTO. The training of non-academics in task 2.3 of the project, is introductory training on topics that are easier to codify. But the implementation of a TTO involves a lot of tacit knowledge and situational assessment from the worker involved. We decided on two topics: licensing models and operating a TTO. The mentoring was carried out by Ard Innovation where they would show templates and tools, and how they use said tools, with examples and questions from the mentored participants. One session was held on May 28th 2024, and an additional is planned for June 11th, 2024, when we are physically gathering.

T4.5 Specific support to start-ups and student-staff teams

Task Leader: BIA (supported by Ard)

Task as planned in the application

Start-ups and student-staff teams can also participate in T4.3, but T4.5 focuses on **additional 1:1 mentoring** based on the specific needs of such teams/start-ups (ca. 3-4 teams/start-ups will be granted 10 hours of 1:1 mentoring by leading experts in their field). **Start-ups will be identified from the networks of all partners,** with selection made based on evaluation of a short application form. EIT Core KPIs "Innovations launched on the market" and "Start-ups created" will be addressed. Target: 5 innovations and/or start-ups launched (phase 1+2).

Reflections on implementation

No student-staff teams participated in the EICD programme in phase II.

Regarding support to startups, in Phase IIA NOBALIS provided support to three startups: Mooreshroom , Fieldwick, and Concepteasy. The mentoring was tailored to meet the specific need of each startup.

MooreShroom

Mooreshrooms AS is a biotech/foodtech startup founded in 2023 with a passion for creating a sustainable solution to a real-world problem, lack of sustainable and nutritious alternative protein sources. Moreshrooms aims to be a B2B supplier of a seaweed-derived mycoprotein ingredient.

The start-up is very early stage, currently focusing on product to market fit and proof-of-concept.
NOBALIS provided Mooreshroom with:
NOBALIS partners Ard Innovation and BIA provided mentoring on building a strategy for Mooreshrooms AS to succeed with their commercial product. The focus was to help Mooreshrooms AS to make an overall timeline and strategy for proof of concept and commercialization, including insight, IPR- strategy, business development and financing.

Specific tasks:

1. Strategy for Proof of concept and financing
2. Commercial hypothesis, gathering of insight and testing of hypothesis.
3. IAM- Intellectual Asset Management as/for IPR-strategy
4. BIA- Possibilities for funding within EIC

Fieldwick

Wickham Consulting is currently developing and commercializing the Fieldwick machine, which is a transportable grain handling machine for temporary grain storage, with drying capabilities that farmers will use to improve their return by increasing their crop quality as well as give them more control when they will harvest and sell their grain. The focus has been on proof-of-concept, now the company is focusing more on business development and modelling.

NOBALIS partner Ard Innovation provided mentoring on building a strategy for Fieldwick AS to succeed with their commercial product. The focus was to help Fieldwick to make an overall timeline and strategy for commercialization, including insight, business development and financing.
Specific tasks:

- Commercial hypothesis, gathering of insight and testing of hypothesis.
- Interview guide and other tools
- Pitch development and training

Concepteasy

Concepteasy is a private R&D company registered in Estonia in 2019, initially to provide extracellular vesicles based diagnostics to grade/sort embryos used in assisted reproduction. In the past four years, Concepteasy has been heavily involved with R&D in different aspects of the EV field, focused on multiple application areas (incl. in food, feed, cosmetics industries). The company currently has three employees with extensive EV enrichment, handling, and characterization expertise.
NOBALIS partner Baltic Innovation Agency will provide mentoring and consultancy to Concepteasy in the process of preparing a public funding application to the Enterprise Estonia Programme for applied research. The focus of the project is to determine the feasibility of mass production of plant- and milk-based extracellular vesicles which are

non-toxic and completely biocompatible with human tissues and can be used in cosmetics and other fields, such as eco-friendly packaging and functional food additives. BIA will also provide Concepteasy an overview of additional relevant public funding opportunities, particularly the EIC Accelerator programme under Horizon Europe.
The service provision to Concepteasy in the context of NOBALIS included:

- Mentoring and consultancy on development of the Enterprise Estonia applied research project
- Review of the financing model of the Enterprise Estonia applied research project
- Overview and general consultancy related to other public funding opportunities relevant to Concepteasy, with a focus on the EIC Accelerator programme

In Phase IIB NOBALIS provided support to two startups: Zensy AS (Norway) and Leftovers (Norway). Both companies received mentoring and consultancy services from dedicated NOBALIS partners over the course of more than two months.

LeftOvers Materials is a company under establishment which utilizes surplus material from the furniture industry. LeftOver Materials is a spin-off of CleanFurn, a company with a long track record in preserving and refurbishing furniture for large corporations such as cruise companies, banks, conference facilities and church rooms. These activities result in large amounts of surplus material of very high quality that is currently not utilized. LeftOver Materials will utilize this surplus material to create sustainable products for an ever-increasing customer group of young adults who want sustainable products. LeftOver Materials has already established strategic contacts with major companies in the furniture industry to ensure the supply of raw materials. The company is also in dialogue with designers, marketers and distributors. The goal is to establish the company during the summer of 2024.
The service provision to LeftOver Materials in the context of NOBALIS included:

- Plan for Business Strategy development
- Revenue streams
- Mapping competence needs
- Investment strategy
- Prepare business plan and investor presentation

Zensy AS is a Proptech startup that has developed a product for autonomous monitoring of waterways from roofs. The company was founded in 2022.
The company has developed a battery-powered camera sensor that uses machine learning and AI to analyze and assess the need for maintenance of roofs, gutters, and drains. The sensor does not require wireless internet but communicates via the IoT network. The result is daily inspections that provide property managers with what they need to avoid costly damages.

Production and development are now taking place at Dynamic Precision in Kjeller. Currently, there are over 50 cameras in pilot projects with a total of 14 paying customers. The product now needs to be prepared for mass production and international sales. The service provision to Zensy AS in the context of NOBALIS included:

- Support on proposal for financing to Innovation Norway
- Workshop with external mentor on strategy and business model
- Workshop with external mentor on fundraising and pitch deck
- General discussion on business development
- Support on design protection and trademark

T4.6 Final event and Demo Day

Task Leader: Latvia University of Life Sciences and Technologies (LLU)

Task as planned in the application

The final event brings together participants and audiences from partnering organizations and ecosystems. The event includes **inspirational presentations** related to good practices in innovation management and **reflections on the results of the staff track**, and **pitches from participants** of the student track, the student-staff teams and start-ups supported. An **international jury** (RD&I innovation ecosystem stakeholders and investors) will provide feedback and announce the **top 3** who will receive **awards** provided by the consortium.

Reflections on implementation

Demo Days for the 2nd and. 3rd edition of the programme were carried out as planned on 13 December 2023 and 2 May 2024 (online, using the Zoom platform). In total, 20 and 30 persons participated in the two Demo Day events.

The key evaluation criterion for the jury was the **objective strength/ business potential of the idea and the team** (product, technological solution, business model, competences of the team) based on the pitch presented.

Each jury member named their TOP3 teams and provide explanations of why she/he considers those teams to be the best. An Excel tool was used to summarize the votes (TOP3 from each jury member received 3, 2,1 points, respectively).

At the end of the event the **best teams** were announced:

Best teams on phase 2A:

I place and the best team from Estonia: **WNWN.skin**
II place and the best team from Estonia: **BioAsphalt**
III place and the best team from Sweden: **Algium**

Best teams of the phase 2B:
I place and the best team from Latvia: **YeastTech**
II place and the best team from Sweden: **BalticMussels**
III place and the best team from Sweden: **Lyckan**

The NOBALIS partners agreed with the **best teams** that they will **act as ambassadors** for the next NOBALIS batch/Hackathon in Spring 2024 and for other NOBALIS related activities (sharing their experiences via inspirational social media messages, stories at the university newsletter, meetings organized to promote the programme).

2 FULL PROGRAMME OVERVIEW AND PARTICIPATING TEAMS

Implementation of the EICD programme included three main stages:

- Hackathon and selection of participants to the mentor programme
- Mentor programme
- Demo Day

2.1 Hackathon and selection of participants to the mentor programme

The hackathon served as the first step of the programme. This was an **idea hackathon** meaning that the participants were working on the development of an innovative idea (no prototype building at the event, etc.). Most teams had very early-stage ideas and the hackathon served to help them with:

1) **Idea development** – in the group work, the teams will be working on thinking through the idea jointly based on the **Idea Template** provided (see below);
2) **Team formulation** – For the 2nd edition there were 11 teams participating, plus 12 individual 'idea owners' looking to find team members. For the 3rd edition there were 19 teams and 15 individuals.

HACKATHON AGENDA
4 October 2023/6 March 2024, 13-17 CET in Zoom

13.00 – 14.00 INSPIRATION AND INTRO
UNWASTED: Practical experiences from EICD Programme 2022
Caroline Sandberg, UNWASTED, winner of EICD Programme 2022 SLU Future Food platform and SLU Holding:
GELATEX: Our startup story
Gelatex´s preliminary mission was to invent a durable textile similar to leather, but since their pivot in 2020, the company has focused on efficient production of cell-based meat. Mari-Ann Meigo Fonseca, Gelatex Co-founder & COO

How to go from pitch to a product/service
Filip Reineby, Drivhuset Norden, Business Developer

14:00 – 14:15 NOBALIS & the EICD programme. Intro to the hackathon - **Kadri Uus/Paula Kägu**, Baltic Innovation Agency, Coordinator of the NOBALIS EICD Programme
14:15 – 14:30 Short break
14:30 – 17:00 HACHATHON & MATCHMAKING
14:30 – 15:00 Initial presentation of ideas (idea owners/team leads).
1 minute for each idea: covering (1) the essence of your idea; (2) if you are looking for additional team members, which skills/competences should they have?
15:00 – 16:00 Idea development in teams (Zoom breakout rooms; working on the Idea Template, mentor help provided)
16:00 – 16:45 Presenting results of group work
16:45 – 17:00 Wrap-up of the day & next steps

IDEA TEMPLATE
Description of the product/service idea

- What is the problem or challenge we are solving
- What is our product or service
- What is new/innovative about our idea

Key aspects of the business model

- How will we make money related to our idea
- Who is our key customer
- What is our value proposition to the customer

Team and plans

- Who are our team members and what is their previous experience
- Which skills are missing from our team
- What are our expectations and goals to achieve for the next 3 months during the NOBALIS programme, what do we particularly need help with

After the hackathon, the teams had one week to further develop/fine-tune their idea template and submit it for final evaluation by the NOBALIS jury/selection committee. This also gave an opportunity for an additional entry in the programme for teams who could not be present at the hackathon.

2.2 Teams selected to the mentor programme 2A

Student teams

1. Aquaponics system for strawberry cultivation

The team is introducing a sustainable aquaponics system specifically tailored for strawberry cultivation in Almería. This system synergizes fish farming with strawberry growth, recycling water and utilizing fish waste as nutrient-rich feed for the plants.

Team members: Manuel Belmonte Ortuño, Mudassar Hussain, Oliver Varchi Tegelöf
University: Latvia University of Life Sciences and Technologies (LLU)

2. Team Vitamin D in Potatoes

The team plans to make chips from potato and carrot peels using less oil than regular chips. The team members have 3 years of hands-on experience studying food quality and innovations. The main goal in the programme is to build a marketable prototype.

Team members: Stian Folvik, Leif Marius Langsholdt, Nikoline Marie Lund
University: Norwegian University of Life Sciences (NMBU)

3. Mushfeast - Mushroom & Bioenergy using Rice Biomass

The team wants to produce fresh, dry, and powdered mushrooms. After the production, they plan to dry mushrooms and majority will be turned into powder form to increase on the life shelf. This powder form can go up to five years when stored in a tight container under cold environment.

Team members: Winfred Awino, Nimitkuma Engineer, Deniz Asingwire
University: Norwegian University of Life Sciences (NMBU)

4. BioAsphalt - Lignin from Grassland Biomass

The team aims to produce a product that is lignin produced from grasslands biomass which can be used as part of batteries anode or for bitumen. They also want to develop by-products like hemicellulose and cellulose, which can be used in pharmaceutical industries or cosmetics.

Team members: Erika Lõhmuste, Annika Jaanimägi
University: Estonian University of Life Sciences (EULS)

5. WNWN.skin - Upcycled cosmetic ingredients for skincare

The team is developing and producing proprietary upcycled cosmetic ingredients using local agri-food industry byproducts as raw materials. The extracted upcycled components will be used both in skincare products and available for wholesale for cosmetic formulation labs and indie skincare brands. While they see the skincare ingredient manufacturing business being the main drive behind the growth long-term, the consumer-facing skincare brand will let us test the market, gather feedback, generate interest in upcycled skincare among consumers, and stand in as a showcase and a marketing tool for our ingredients in the B2B market.

Team members: Alina Rätsep, Kelly Alev

University: Estonian University of Life Sciences (EULS)

6. Fiber Cap - Team Flour Improver

The team is developing Fiber rich flour improver, that can be easily added to any bakery product. They are developing a single or multi origin plant based fiber product that would be the best combination of sensory parameters and our physical needs.

Team members: Mihkel Tammaru, Katriin Loviis Viltsin, Jürgen Vahter, Stiven Vatin

University: Estonian University of Life Sciences (EULS)

7. Cyano Biotech Nanoparticles for organic fertilizers & polluted land

The team aims to develop a product that contains microorganisms (cyanobacteria) which have been genetically modified to reduce heavy metal pollution and a product that contains microorganisms (cyanobacteria) which have been genetically modified to carry out very high chlorophilic photosynthesis.

Team members: Andrea Sandrini, Marco Zanotto

University: Swedish University of Agricultural Sciences (SLU)

8. Algium

The team is developing a type of water-filled pipe for growing green microalgae in. They are to be attached to the sides of buildings; houses/apartments etc. Nutrients for cultivating the biomass would come from compost, in a box connected to the main pipe of the Algeduct. The biomass would be harvested, then sold, via us, to companies manufacturing different products.

Team members: Siri Lange, Cynthia Obiora

University: Swedish University of Agricultural Sciences (SLU)

9. Enhancement of food waste by insects

The teams`product/service idea is based on the creation of an innovative system for recovering organic waste, taking advantage of the biomass produced by insects. They are responding to the locally pressing challenge of food waste management in Scandinavian countries. The major problem they are solving is the astronomical amount of food waste generated each year by supermarkets and large retail chains, leading to considerable environmental pollution and wasting valuable resources.

Team members: Edwin Deboise, Hadrien Bruselle

University: Swedish University of Agricultural Sciences (SLU)

2.3 Teams selected to the mentor programme 2B

Student teams

1. Automatic watering system for gardening

The team in developing an attachable watering system that can be manipulated through an intuitive app. By selecting which plant is being cared for, the app can generate specific watering schedules based on the plants needs, however these schedules can be edited, should the user feel the need to do so. The system would require the customer to fill it up with water, then by selecting a watering schedule from the app, the system will water the plant when necessary, hence removing the need for additional action from the client. By using sensors, the app will also notify the customer if pH levels of the soil do not match the recommendations for that specific plant.
Team members: Alija Vasijeva, Ričards Balodis, Anda Jankovska, Jēkabs Tomsons, Emīls Ramiņš
University: Latvia University of Life Sciences and Technologies (LLU)

2. Team ScaleGrow
Team members: Emīls Liepnieks, Marija Lukina, Ksenija Furmanova, Maija Runce
University: Latvia University of Life Sciences and Technologies (LLU)

3. YeastTech: Brewery-used yeast application in food production
The team wishes to offer a technology, by which they are able to reduce purine content and subsequently reduce detrimental effects to the body such as metabolizing kidney stones. Also, they are processing the brewery's spent yeast. This results in a pure food material, which could be added to numerous food products such as pasta, snacks, cookies, bread, and other food products to make them functional and enhance their nutritional status. YeastTech is offering both services as a technology with which it's possible to reuse the brewery's spent yeast, valorise it and as a product - by adding a processed brewery's spent yeast to several food products. By repurposing this byproduct, they plan to reduce these negative environmental impacts and offer breweries a cost-effective solution for waste management.
Team members: Andrejs Bānis & Olga Latisenko
University: Latvia University of Life Sciences and Technologies (LLU)

4. NutriBloom: Personalized nutritional assessments
The team wants to provide nutrition guidance with a personalized approach and meal plans, as well as tracking of the process and a community to support a healthy change of eating habits in the form of an app. In the future we are aspiring to use BIA (bioimpedance analysis) to further track progress of our clients.
Team members: Raul Andreas Sanjines Morato, Aleksandra Cibova, Anna Oborska
University: Norwegian University of Life Sciences (NMBU)

5. Sapify: Tree sap chewing gum
The team wishes to produce a healthier chewing gum that has less artificial ingredients added, but also makes use of an existing natural material in the form of the tree sap. Their main focus is to introduce tree sap based out of the Norwegian spruce "*Picea abies*", as a natural main ingredient in our new chewing gum. There are not many alternatives to the commercial artificially sweetened resin gums, but tree sap could be a viable alternative as an ingredient.
Team members: Rasmus Sõõru & Karl Piksar
University: Estonian University of Life Sciences (EULS)

6. Algal food matrices

The team is developing algal food matrices such as algal smoothies that will be developed with dairy-based and non-dairy based milk such as almond milk and oat milk, considering the rapidly growing section of European population with different eating habits such as vegetarians, vegans, lactose- and gluten-intolerant people. The second part of the idea involves developing a strong algal data consultancy platform which will provide knowledge about different algal species and their suitability to being adapted as dietary components. Using this platform, we will provide new insights and connect different stakeholders including growers, other product developers, processing industry, logistics partners, etc. We will be working as a gap filler who can lead to the correct solutions in algal industries.

Team members: Salini Chandrasekharan Nair & Anjana Hari
University: Estonian University of Life Sciences (EULS)

7. TaluTasku: Renting Farmers' Plants

The team is developing an app which has two sides. One side is the virtual greenhouse, where consumers can pick, what kind of plants they want to adopt from the farmer. Second side is a farmer´s profile, where one registers the things they grow. Adopting a plant costs a monthly fee, so the farmer simply gets paid for taking care of a plant, which has been adopted by customer. In app settings there is also possibility for customers to choose whether they want crops to be brought to their doorstep or they want to pick it up by themselves once the crops is ready.

Team members: Hanno Võsu, Mart Timuska, Grethe Läns
University: Estonian University of Life Sciences (EULS)

8. Korvike: Platform for small-scale farming businesses to market and sell their products

The team is developing a streamlined and cost-effective platform tailored for suppliers to efficiently market and distribute their products to customers. Local small businesses cannot sell their produce in big markets, because of the lower quantity of produce they make. Percentage the shop adds from selling goods is too large for the small businesses as they're profit margin is very small.

Team members: Henn Kaaleb Humal, Kristjan Hordo, Kristofer Jallai, Evert Raudnõmm, Marcus Veber
University: Estonian University of Life Sciences (EULS)

9. Lyckan: Social indoor urban green spaces

The team aims to We aim to provide green spaces to improve (mental) health of SLU students and employees; provide a space for sustainable greenery practices and other creative ideas; provide an informal interactive space to promote interdisciplinary and cross-academic level conversations; create a marketing opportunity for both SLU and its students/researchers; work towards the UN's sustainable development goals as an institution.

Team members: Nicole Hyslop & Suze van der Zwet
University: Swedish University of Agricultural Sciences (SLU)

10. PRANA: Automated smart pod for better indoor quality

The team wishes to produce an innovative smart plant pot designed to revolutionize the way we think about

indoor air quality and plant care. This product serves a dual purpose: optimizing oxygen production from plants and enhancing air purification, all through the incorporation of advanced technology.
Team members: Nitin Chaudhary & Shubhangi Lamba
University: Swedish University of Agricultural Sciences (SLU)

11. Baltic Mussels: Mussel farming
The team wishes to develop ecosystem services in the Baltic Sea. The aim is improving the health of the Baltic Sea matters to all the countries around it. Farming mussels helps by reducing the growth of microalgae and trapping nutrients like phosphorus and nitrogen, thus making them less available for the next generation of microalgae.
Team members: Clara Holmén & Edith Wolff
University: Swedish University of Agricultural Sciences (SLU)

12. Treewards Foundation: mobile app that gamifies tree planting
The team is working towards gamification of enterprise management softwares (EMS), and mobile applications to amplify afforestation activities. In simple terms, they are the bridge between individuals and corporations interested in offsetting their carbon footprints and organizations involved in plantation and forest conservation.
Team members: Abhishek Shastri Behera & Anannd Goell
University: Swedish University of Agricultural Sciences (SLU)

13. Zuna's Choice: Baby cereal
The team is developing a baby cereal formulated with a variety of locally sourced grains and packed with micro and macro nutrients essential for the baby's physical and mental growth and development in the most delicate 1000 days of their lives.
Team members: Atim Mbah Patience, Faniran Ngobesing, Fortu Rahab, Bonyelle Colette
University: Swedish University of Agricultural Sciences (SLU)

2.2 MENTOR PROGRAMME

The ten teams introduced above were invited to the NOBALIS mentoring programme, comprising three intense development days (each covering 2-3 topics relevant to startup development), and additional 1:1 mentoring plus individual work in between the joint sessions. All teams successfully completed the programme.

This section provides the detailed agendas of all Intense Development Days/ workshops (the agendas and speakers were the same for both editions of the programme).

SESSION 1: Wed, 18 Oct, 13:00 -16:00 CET

13:00 - 13:10	Intro
13:10 - 14:25	**Business Model Development** - Developing a sustainable and green business model, using the Business Model Canvas tool; starting with **describing your own business model.** ***Yelena Zhovnikova***
14:25 - 14:40	*Break*
14:40 – 15:55	**Marketing and Sales** - How to put in place build an efficient marketing and sales strategy, how to reach your target groups and start sales? ***Aleksander Tõnnisson***
15:55 - 16:00	Wrap-up and next steps

***Homework**: filling in your Business Model Canvas (Yelena Zhovnikova)*

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SESSION 2: Wed, 8 Nov, 13:00 -16:00 CET

13:00 - 13:10	Intro
13:10 - 14:25	**Sustainable Product Development, MVP** - Product development in sync with circular economy principles; how to develop and test **your minimum viable product?** ***Ragmar Saksing***
14:25 - 14:40	*Break*
14:40 – 15:55	**Impact management and measurement –** How to build a good framework for measuring and managing the environmental and/or social impact of your product or service? Tools, frameworks, setting KPIs. ***Jaan Aps***
15:55 - 16:00	Wrap-up and next steps

***Homework**: developing and testing your MVP (Ragmar Saksing); developing a 3-minute pitch*

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DEMO DAY

The Demo Day events of the second and third edition of the NOBALIS EICD Programme were carried out on 13 December 2023 and 2 May 2024 (online, using the Zoom platform). The Demo Day served as the culmination of the programme, in the context of which the teams that had gone through the mentoring programme had a chance to **pitch their ideas to an international jury.** The jury included the following individuals, representing all NOBALIS countries:

- **Agnese Oļševska**, Head of Jelgava Business Incubator, Investment and Development Agency of Latvia
- **Aleksander Tõnnisson**, Partner at Cocoon Ventures, investor
- **Rene Tõnnisson**, Member of the Management Board at Baltic Innovation Agency and Buildit Accelerator, investor
- **Muris Letic**, NOBALIS project manager and advisor at the Norwegian University of Life Sciences
- **Madara Dobele**, Researcher at the Latvia University of Life Sciences and Technologies

- **Jan Aidemark**, Associate Professor at Linnaeus University
- **Anne Põder**, Researcher and Chair of Agricultural Economics at the Estonian University of Life Sciences
- **Mats Wiktorsson,** Marketing/Brand Director with broad experience from International work. Helping companies and organizations in strategic marketing.
- **Dina Popluga,** Researcher and Vice-dean at the Faculty of Economics and Social Development at the Latvia University of Life Sciences and Technologies
- **Jan Aidemark,** Associate Professor at Linnaeus University
- **Tone Blixøen**, Partner at the Aggrator Incubator, specializing in agricultural, breeding and environmental technology

The jury evaluated the objective quality of the idea and the team base on the pitches made and decided the best teams of the programme receiving the following **prizes**:

1) I place/ Best team: **WNWN.skin/ YeastTech.** Prize: 1000 EUR by BIA for further development of the idea.
2) II place/ Best team from Estonia: **BioAsphalt/ BalticMussels.** Prize: 500 EUR by BIA for further development of the idea.
3) III place/ Best team from Latvia: **Algium/ Lyckan.** Prize: 300 EUR by BIA for further development of the idea.

3 KEY RESULTS AND LESSONS LEARNED

All in all, implementation of the second and third edition of the EICD programme can be considered successful. All KPIs related to Phase 2 were achieved, as outlined in the table below. What is not clearly reflected in the KPIs is the progress that the teams graduating from the programme made over the three months. The best teams made a big leap from an initial idea to a more solid business model. The workshops and the 1:1 mentoring sessions helped the teams to focus their idea better, some also managed to prepare their first prototypes and MVPs, and there was also a clearly visible progress in terms of branding and presentation skills.

Table 1. WP 4 KPIs (Authors)

WP4 KPIs for the entire project period (July 22 -June 24)	Phase 1 planned	Phase 1 achieved	Phase 2A planned	Phase 2A archived	Phase 2B planned	Phase 2B archived	TOTAL
	JUL-DEC 22		JUL-DEC 23		JAN-JUL 24		

# start-up/scale-ups supported	2	2	3	3	2	2	7
# students mentored	12	16	13	23	13	39	78
# academic staff members mentored	4	4	5	7	4	4	15
# non-academic staff mentored	4	4	5	8	4	4	16

The second (Autumn 2023) and third (Spring 2024) editions of the NOBALIS Entrepreneurship and Innovation Capacity Development (EICD) Program have built upon the valuable insights gained from the first edition of the programme. Incorporating feedback and lessons learned from the first edition led to noticeable improvements in participant engagement and overall program effectiveness.

Dealing with Time Pressure

Continued Challenges:

Preparation: While the timeline was tight, better planning allowed for smoother preparation compared to the first edition.

Improvements:

- Preparations began earlier, allowing more time to engage potential partners and ensuring a more balanced and geographically diverse group of speakers and mentors.
- Enhanced recruitment strategies, including more targeted communication and extended timelines, facilitated better participant involvement.

Necessity for a clear value proposition

Enhanced Value Proposition:

- The value proposition was clearly communicated through improved promotional materials, which highlighted key program benefits and the introduction of monetary prizes.
- Monetary Prizes: Explicitly included in the promotional materials, contributing to higher motivation among participants.

Using success stories to recruit participants.

- Winners from the first edition successfully acted as ambassadors, sharing their success stories, and attracting new participants.
- Positive Experiences: The positive experiences from previous editions were heavily featured in recruitment campaigns, boosting interest and applications.

Virtues and challenges of the virtual format

Advantages:

- International participation remained high, and scheduling continued to be flexible.
- Interactive Sessions: Compared to the first edition, there was more emphasis on interactive elements to keep participants engaged during mentoring and development days.

Challenges:

- While virtual engagement improved, it still posed some challenges.

Programme structure and methodology.

Effective Practices:

- The structure of monthly workshops, followed by mentoring and individual work, continued to work well.
- Consistent scheduling with no long gaps between sessions maintained participant momentum.
- Clear and detailed agendas for each session ensured participants knew what to expect and could prepare accordingly.

Strengthening the engagement of experts

- Implemented joint meetings for all experts to provide a comprehensive overview of the program and the progress of the teams.
- Introduced lead mentors who supported teams throughout the program, ensuring continuity and deeper engagement.

Improving the collection of feedback

- Shorter Forms: Simplified feedback forms increased response rates.
- Clearly communicated the importance of feedback, resulting in more thorough and timely responses.
- Continued use of short virtual meetings with mentors provided valuable insights alongside traditional feedback forms.

Outcome:

- Increased Activity: Individual communication with participants significantly boosted their engagement and activity levels.
- Regular check-ins and personalized feedback helped address issues promptly and kept participants motivated.

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Conclusion

The second and third editions of the NOBALIS EICD Programme demonstrated significant improvements by incorporating lessons learned from the first edition. Enhanced planning, clearer value propositions, better

recruitment strategies, and more personalized communication led to higher participant activity and engagement. These continuous improvements ensure that the program effectively supports innovation and entrepreneurship in higher education, benefiting students and staff across the participating institutions.

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