

Paving the way towards Sustainable Entrepreneurship Education

15 March 2022
from 10.00 to 13.00 (Online)



Objectives

- **Facilitate Mobilisation and Mutual learning** among projects and initiatives interested in the intersection of Entrepreneurship Education (EE) and Sustainable Education (SE), with a special focus on circular and sustainable bioeconomy
- Identify the **skills and competences** needed by Sustainable Entrepreneurs
- Identify how the cross-fertilisation of EE and SE can help **design educational curricula and extra-curricular activities for sustainability-minded entrepreneurs** of tomorrow
- Discuss how this affects the existing educational communities
- Provide recommendations for topics, issues and challenges that need to be addressed in future research and education

Agenda

10.00-11.30 Presentation of inspirational case studies

Veera Tahvanainen - Policy officer DG RTD EC

Nelo Emerencia - BIC

George Sakellaris, Marie Kubankova - BIOEAST

Susanna Albertini - EuBioNet/Transition2Bio

Stefan Lilischkis - BIOSKILLS

Davide Viaggi - BIObec, EBU, BIOCIRCE

Han van Osch - ICA-CoP Bioeconomy Education

Rosen Dimov - Go-Up Incubator

Lisa Ploum – ICA-Edu Special Interest Group (SIG) for Sustainable Entrepreneurial Education

Andreas Zitek – INTRINSIC project

Elin McCallum, Urška Pivk Kupirovič - The EntreComp Community

Filippo Martinelli - Bioeconomy Ventures, MPowerBio

Agenda

11.30-11.40	Coffee break
11.40-11.45	Introduction to the interactive session
	What are the societal, environmental and economic impacts of Sustainable Entrepreneurship? The need of integrating entrepreneurial education and sustainable education.
11.45-12.50	Interactive session
	<ul style="list-style-type: none">• What are the competences of a sustainable entrepreneur?• How education providers can respond?<ul style="list-style-type: none">◦ What level of education can provide Sustainable Entrepreneurship Education?◦ How? What type of actions (capacity building, formal/informal education, incubators, etc...)◦ Who can undertake this task?• Good practices of Sustainable Entrepreneurship Education in Europe: sharing of concrete examples/case studies.• Recommendations to address the gaps.
12.50-13.00	Conclusions

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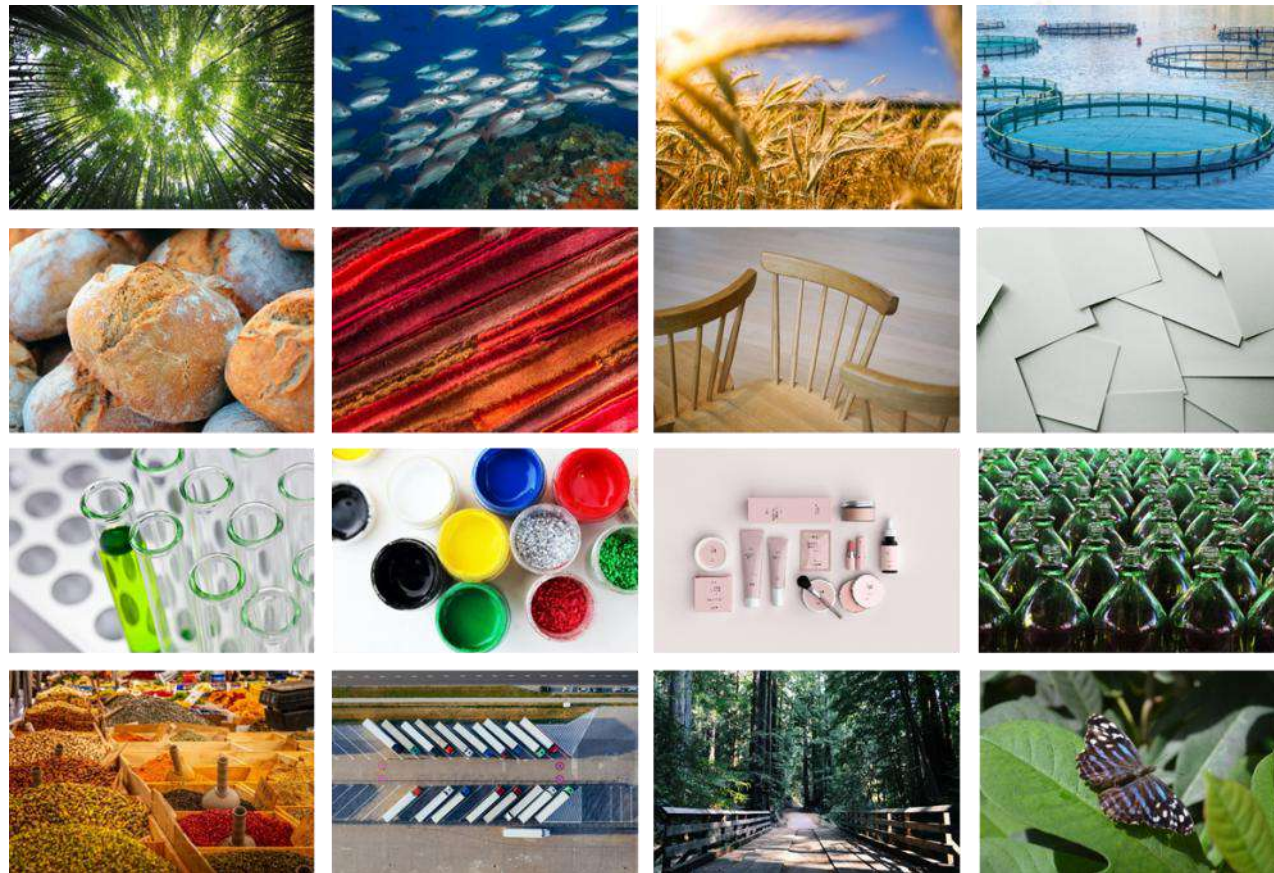
**THE SUSTAINABLE AND CIRCULAR
BIOECONOMY IN EU**
*Veera, Tahvanainen
Policy Officer, EU Commission*



Bioeconomy - The European Union way

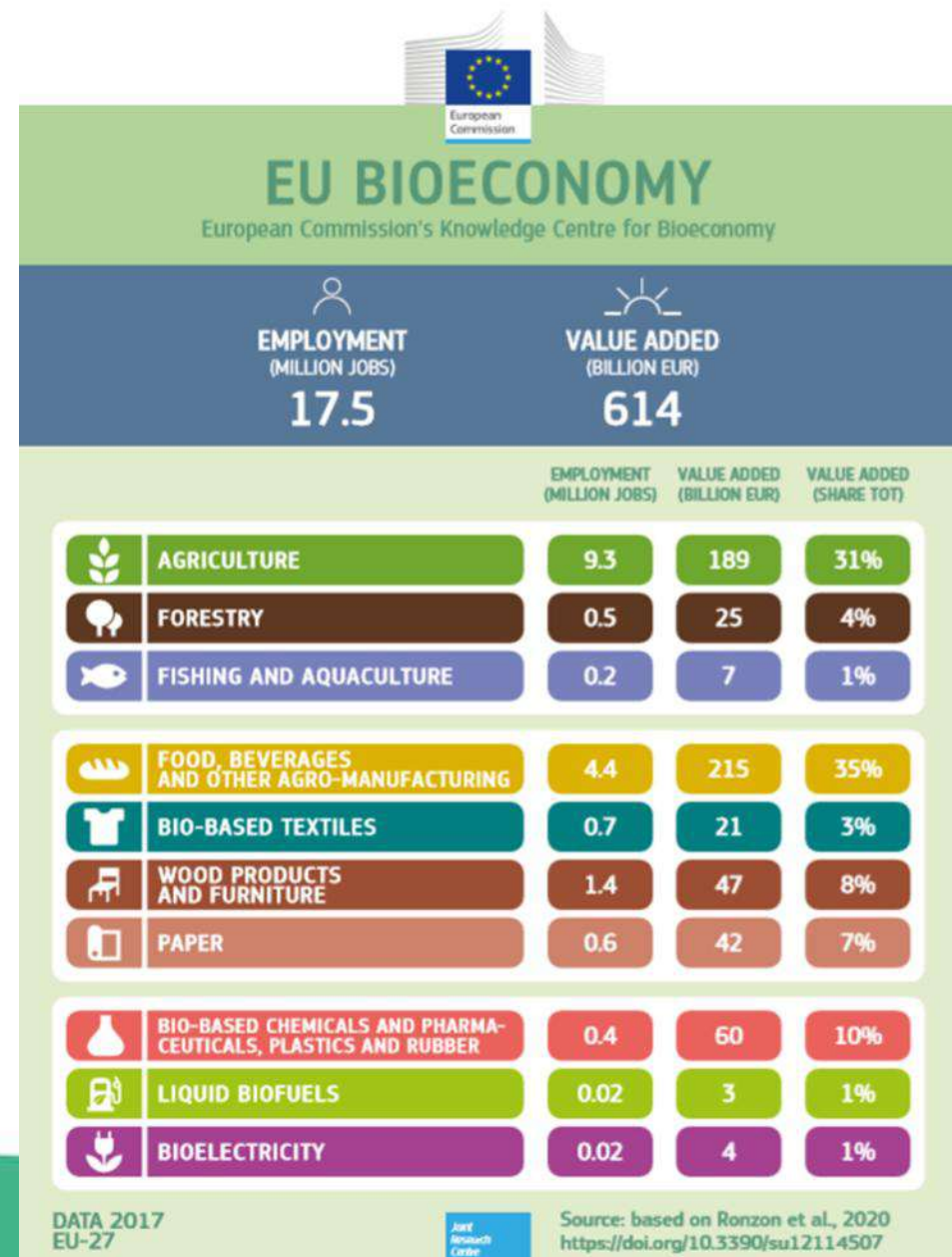
Enabler for the Green Transition:

- Holistically address the economic, social and environmental aspects of the transition
- Build a climate-neutral future
- Protect biodiversity and ecosystems
- Reduce dependence on non-renewable resources
- Modernise and strengthen the EU industrial base
- Create new green business opportunities for SMEs
- Enhance resource efficiency and circularity



A key sector of the EU's economy

- ~8.9% of the EU's workforce
- ~75% employed in agriculture, food and drink industry
- 4.7% of GDP
- High job creation potential, in rural, coastal and urban areas, through the growing participation of primary producers and deployment of bio-based solutions



The Bioeconomy Strategy and Progress report

2012



Communication on Bioeconomy

2017



Review of Bioeconomy Strategy

2018



Updated Bioeconomy Strategy

Bioeconomy Progress Report

- High-level Bioeconomy Conference in Brussels
- 14th and 15th September 2022

Sustainability

Circularity

System-wide

1

STRENGTHEN AND SCALE-UP THE BIO-BASED SECTORS, UNLOCK INVESTMENTS AND MARKETS

- Mobilise stakeholders in development and deployment of sustainable bio-based solutions
- Launch the EUR 100 million Circular Bioeconomy Thematic Investment Platform
- Analyse enablers and bottlenecks for the deployment of bio-based innovations
- Promote and develop standards, labels and market uptake of bio-based products
- Facilitate the development of new sustainable biorefineries
- Develop new biodegradable products, including bio-based plastic substitutes

2

DEPLOY LOCAL BIOECONOMIES RAPIDLY ACROSS EUROPE

- Launch a Strategic Deployment Agenda for sustainable food and farming systems, forestry and bio-based products
- Launch pilot actions for the development of bioeconomies in rural, coastal and urban areas
- Support regions and Member States to develop Bioeconomy Strategies
- Promote education, training and skills across the bioeconomy

3

UNDERSTAND THE ECOLOGICAL BOUNDARIES OF THE BIOECONOMY

- Enhance knowledge on biodiversity and ecosystems
- Monitor progress towards a sustainable bioeconomy
- Promote good practices to operate the bioeconomy within safe ecological limits
- Enhance the benefits of biodiversity in primary production

Horizon Europe Work Programme 2021-22

Education, training and skills

- Study to identify skills gaps and needs for the bioeconomy workforce of the future
- University curricula, vocational training and entrepreneurship education

Education on Bioeconomy: young people (HORIZON-CL6-2021-GOVERNANCE-01-11)

- **Topic:** Education on the bioeconomy including bio-based sectors for young people in primary and secondary education in Europe
- **Expected outcomes:** increase interest and awareness of young people on bioeconomy using innovative approaches

Bioeconomy innovation and deployment (HORIZON-CL6-2021-GOVERNANCE-01-04)

- **Topic:** Strengthening bioeconomy innovation and deployment across sectors and all governance levels
- **Expected outcomes:** contribute to the development of a Strategic Deployment Agenda for the bioeconomy
- E.g. by improving the interfacing between the research communities, the innovation communities, investors and citizens

Bioeconomy innovation and deployment (HORIZON-CL6-2021-GOVERNANCE-01-10)

- **Topic:** Raising awareness of circular and sustainable bioeconomy in support of Member States to develop bioeconomy strategies and/or action plans
- **Expected outcomes:** supports Member States that do not have a bioeconomy strategy and/or an action plan in developing one
- Stakeholder connections

Useful links and contacts



My contact info: veera.tahvanainen@ec.europa.eu

EU Bioeconomy webpage: https://ec.europa.eu/info/research-and-innovation/research-area/environment/bioeconomy/bioeconomy-strategy_en

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Case studies from the
BIOEAST Region

George Sakellaris & Marie Kubankova
BIOEAST HUB CR

The need to develop Sustainable Entrepreneurship Education in the BIOEAST macro region

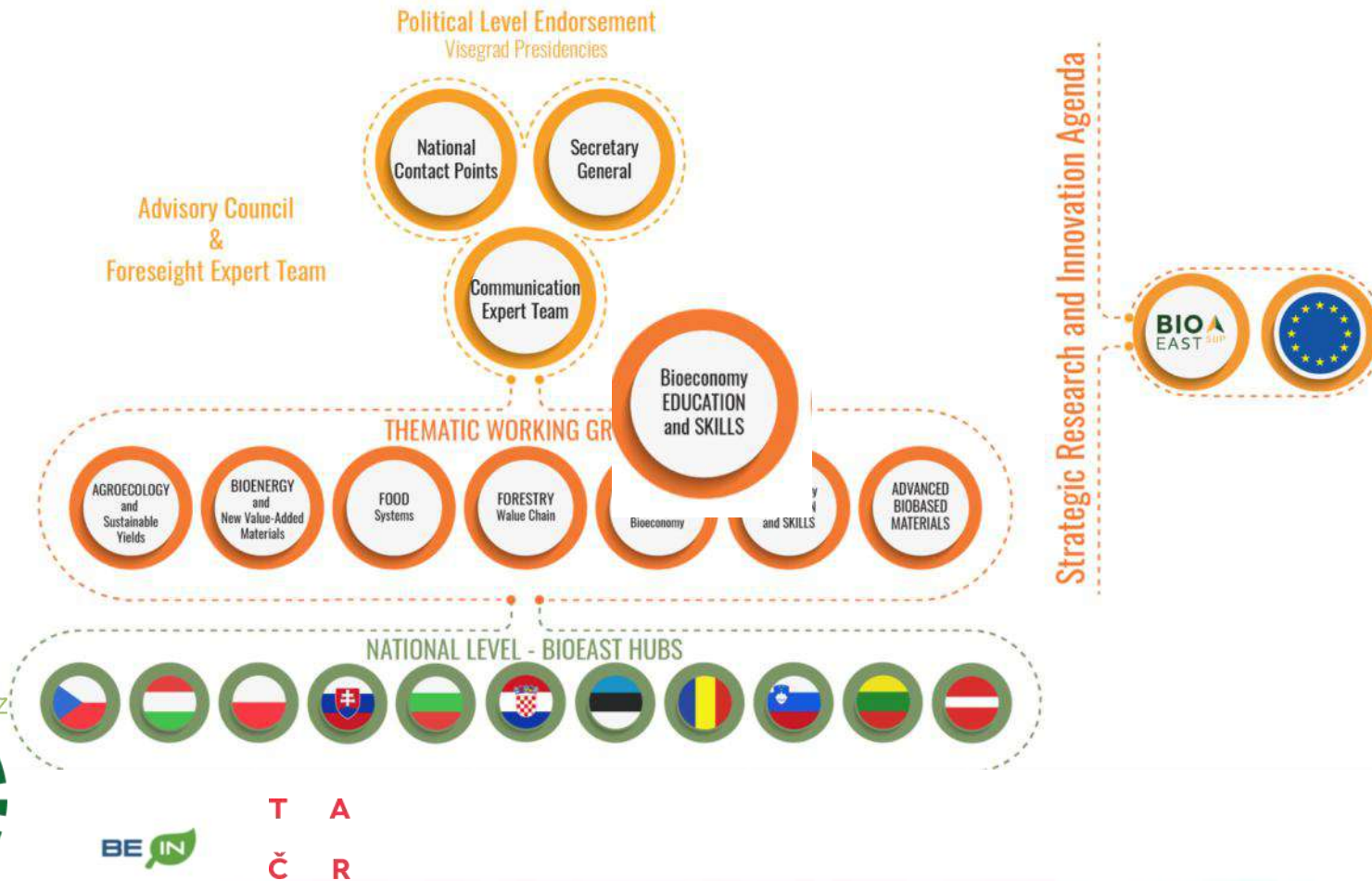
- The region has significant particularities which need to be considered
- A substantial benefit is expected given that a SRIA plan is developing
- Both sustainability and entrepreneurship are well embraced domains during the last years in the region
- There is a good manpower potential



BIO
east

BIOEAST Thematic Working Groups

BIOEAST HUB CZ & Bioeconomy Case Studie 4 SMEs BE IN

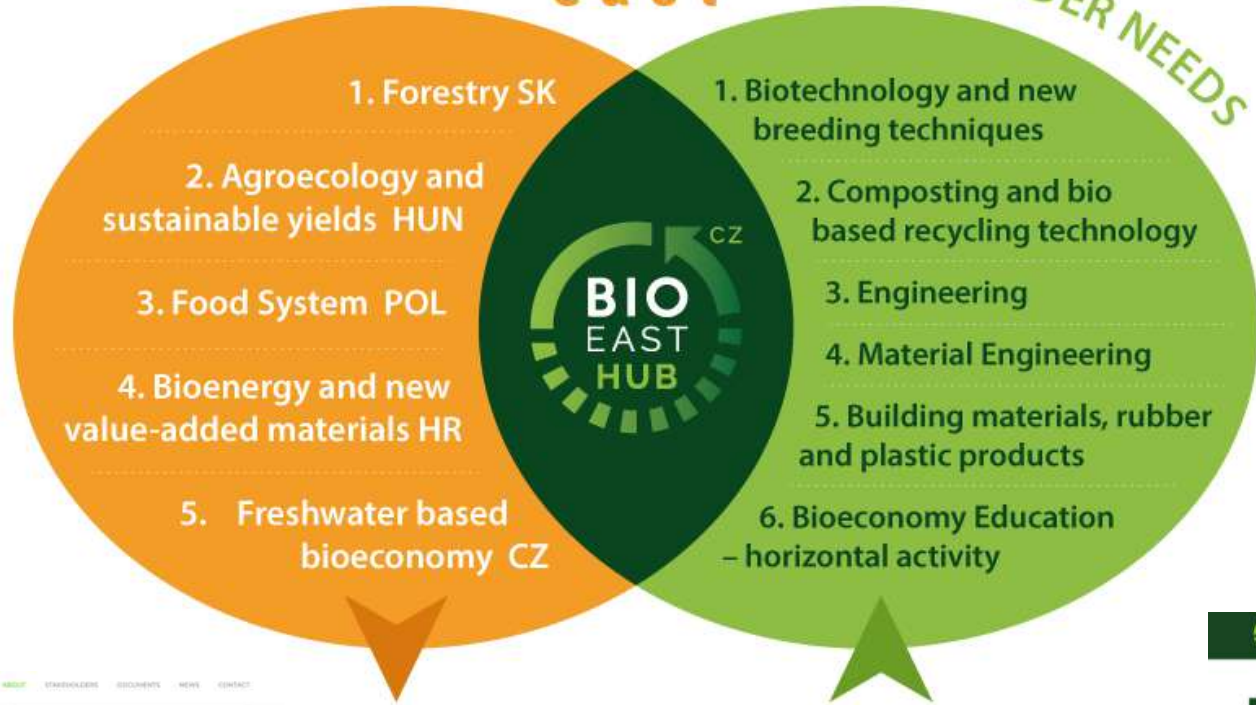
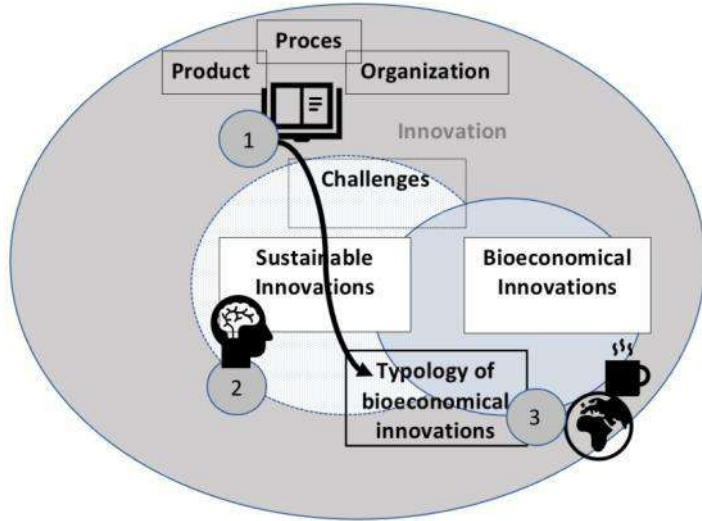


TWG_BE – Setting up in a European Context

Practices and Outcomes

- Aligning with the Initiatives of the EC on BE
- Participation in the “*European Community of Practice of Bioeconomy Education*”
- Participation in specific and related networks
- Coordinating National Initiatives
- Enabling an Active Core among Educational Institutions within the BioEast Region
 - Common Educational Programs
 - Highlighting the Regional Dimension
- Supporting sectorial needs
- Exploring National & Regional Resources and funding opportunities

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Adapted by
Broring et al.
(2020)

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	Substitutes	Innovative Process	New Products	New Forms of Behaviour
Innovation Type	New solutions Organic chemicals such as ethanol Energy production from biomass	New uses for biomass Fermentation and microbial conversion Replacement of chemical and biological processes Progressive advances in plant breeding and cultivation	New inputs/products with disruptive and multi- industry applications New genomic techniques Enzyme technologies Biopharmaceutic als	New combinations of chains/value chains (cascade) New connections between existing value chains
	<i>P PRO, O</i>	<i>PRO</i>	<i>P</i>	<i>P PRO, O</i>
Case Study	Biogas Production	Biogas Enhancement		Bio Fertilizers

Adapted by Broring et al. (2020); Legend PRODUCT – P, PROCESS – PRO, ORGANIZATION – O

Findings

- Cooperation is a must on the macro regional level and abroad
- Education and Motivation are needed
- Learning curricula are required, tailored to the region particularities
- Case study to inspire SMEs

Gaps & Challenges

- Education on Sustainable Entrepreneurship is totally lacking from the Education curricula in the BioEast Universities and Institutions
- The potential is not yet demonstrated to key actors and related stakeholders
- There is limited exposure to the BioBased related Industry in the region
- There are limited good practice examples in the region to support peer to peer learning and mutual learning
- Lack of interest from key investment mechanisms, Institutions and private investors

Useful links and contacts

www.bio-hub.cz

www.bioeast.eu



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The role of EuBioNet and
Transition2Bio in
promoting Sustainable
Entrepreneurship Education
Susanna Albertini
EuBioNet, Transition2Bio

Overview of the EuBioNet



Initiated by the BIOVOICES project in March 2018 and currently animated by the **Transition2BIO project**, the European Bioeconomy Network (EuBioNet) is a proactive alliance of **more than 100 EU funded projects** dealing with Bioeconomy promotion, communication and support.

The main goal of the European Bioeconomy Network is to **maximise the efforts, increasing the knowledge sharing, networking, mutual learning, coordination of joint activities and events.**

<https://eubionet.eu/>

The members of network



Main outcomes

- The European Bioeconomy Network partners **benefit from the mutual promotion of outcomes, new partnerships, joint event planning and knowledge sharing.**
- **More than 200 collaborations were facilitated by EuBioNet** and Transition2Bio is continuously implementing activities stimulating the collaborations among EuBioNet partners.
- The **EuBioNet is recognized by the EC** as innovation ecosystem facilitator (mentioned in the Bioeconomy strategy update 2018)
- The **EuBioNet working group in Bioeconomy Education**, brings together key players in this field to consolidate the current perspective for innovation in education in the Bioeconomy at all levels.

Overview of the project



Transition2bio is a two-year project funded by the European funding programme for research and innovation Horizon 2020 under Grant Agreement No. 101000539. (Jan 2021-> Dec 2022)

The project is built upon the most relevant communication and education EU funded projects and initiatives, moving closer to the implementation of the updated 2018 EU Bioeconomy Strategy and promoting the transition towards a more sustainable Europe.

Main activities in sustainable education

- Awareness and public engagement activities (**focus on youth**)
- Large scale events
- **Awareness and engagement of young people** (Hands-on labs, Info-educational games, School competitions, Training for teachers)
- Social Media (@biovoices)
- Identification of **future skills for the bioeconomy** (through skillathons)
- **Stimulate debate and mutual learning** (through the European Bioeconomy Network > working group in bioeconomy education)
- **Strengthening the communication and stakeholder engagement capacities of Member States and Regions.**



Case study1: Promotion of the Bioeconomy Prize in the context of the Startupper Shool Academy (Lazio Region)



Context: Develop entrepreneurial skills in high school students (Lazio Region). 2019, 2020, 2021 and 2022 edition



BIOVOICES/Transition2BIO/EuBioNet Activity: Creation of the Bioeconomy prize to award business ideas in this sector. Capacity building activities, prizes, toolkits and the possibility to present their solutions at Researcher's Night (Roma), Maker Faire (Roma), Science is Wonderful (Brussels) and to companies (P&G). Collaboration with Novamont, Cluster SPRING, Re Soil foundation

Impact: 894 Schools, 38699 students, 1321 Teachers, 407 ideas

Case study2: Transition2Bio Capacity building for Member States and Region (Awareness raising, Communication, Stakeholder engagement)



6-7 April 2022
<https://bit.ly/3taM4be>

Gaps still to be addressed

- Need to inspire young generations to acquire the **sustainable entrepreneurial mindset** (circularity, sustainability, impacts)
- The **gap between education and industry** should be reduced
- Need to increase **transversal capacities and skills**
- Development of "**systemic thinking**"
- Vertical "packages" can be injected in all curricula (bioeconomy, sustainability, circularity, entrepreneurship)
- Facilitate **mobilisation and mutual learning, good practices sharing** and discussion of **shared challenges** among education community

Useful links and contacts

EuBioNet webpage: <https://eubionet.eu/>

Social Media: **@EuBioNet1** (Twitter), **EuBioNet** (LinkedIn group)

Transition2Bio webpage: <https://www.transition2bio.eu/>

Social Media: **@biovoices** (Facebook, Twitter, Instagram, LinkedIn)

Susanna Albertini - albertini@fvaweb.it

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Promote Education, Training and
Skills across the Bioeconomy
(BioSkills)

*Stefan Lilischkis
empirica GmbH*



The study

Study for DG RTD

6/2021 – 9/2022

Objective: “development of educational and training content, methods, tools and structures to achieve a mainstreaming of bioeconomy into education and training” in higher and vocational education

Covered: Belgium, Bulgaria, Estonia, Finland, Germany, Italy, Latvia, the Netherlands, Slovakia, Spain

Partners: Deloitte, empirica, Fondazione Giacomo Brodolini

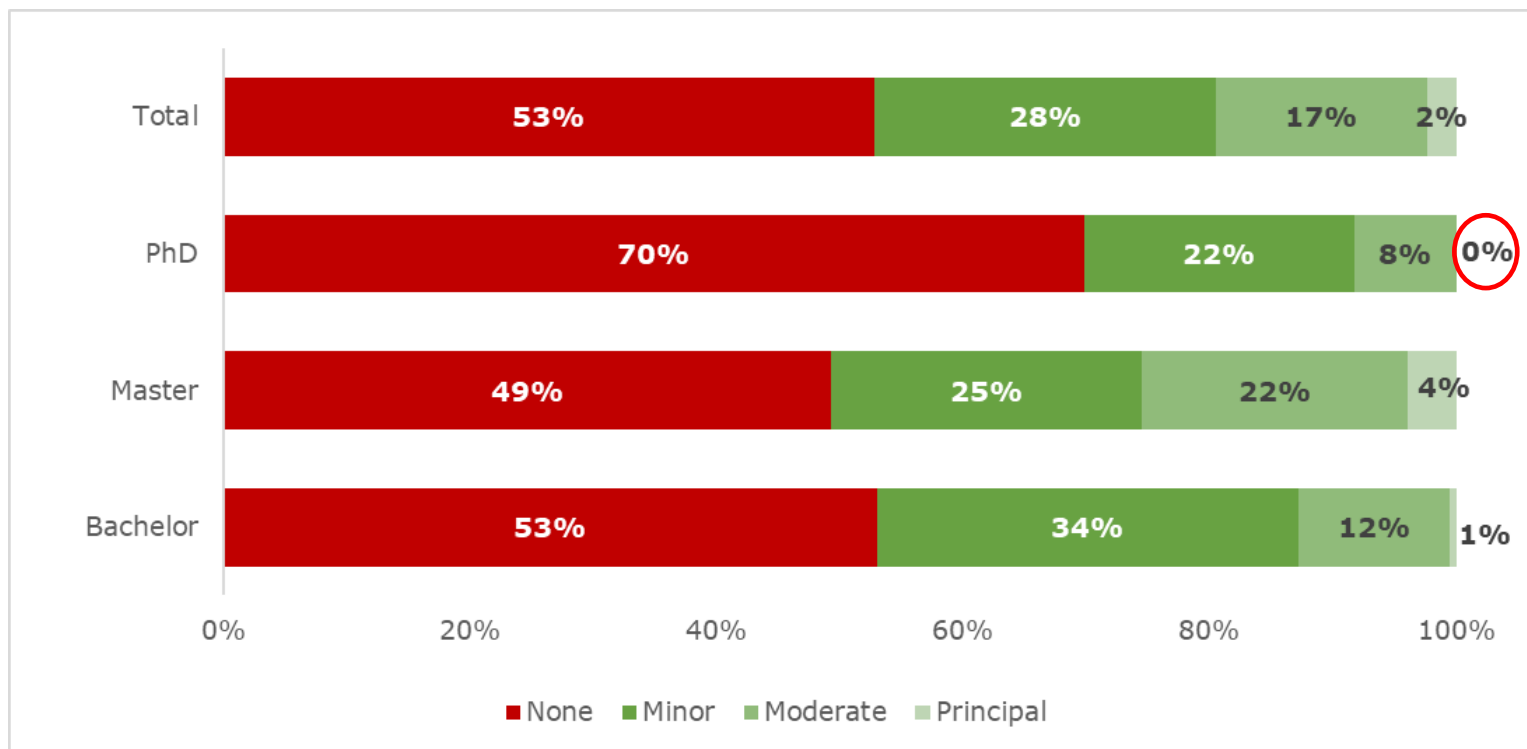
Task 4: Entrepreneurship training

Tasks in entrepreneurship training

- “Identify, map and analyse the current state of the art of bioeconomy entrepreneurship education and mindset”
- “Develop entrepreneurship programmes, modules and recommendations”

Findings overall

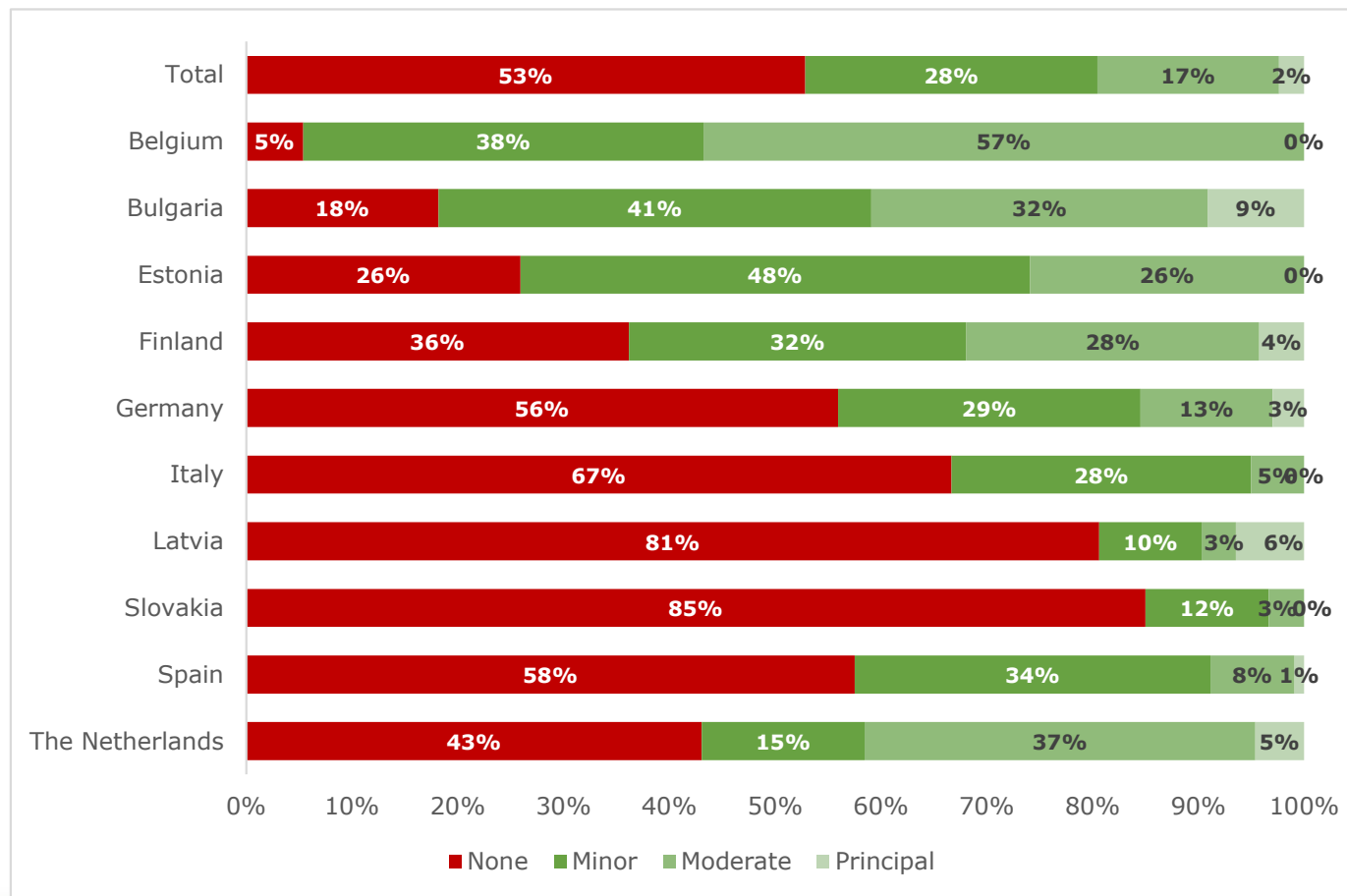
Bioeconomy study programmes in higher education by level of study and depth of entrepreneurship :



n = 618 study programmes

Higher education programmes by country

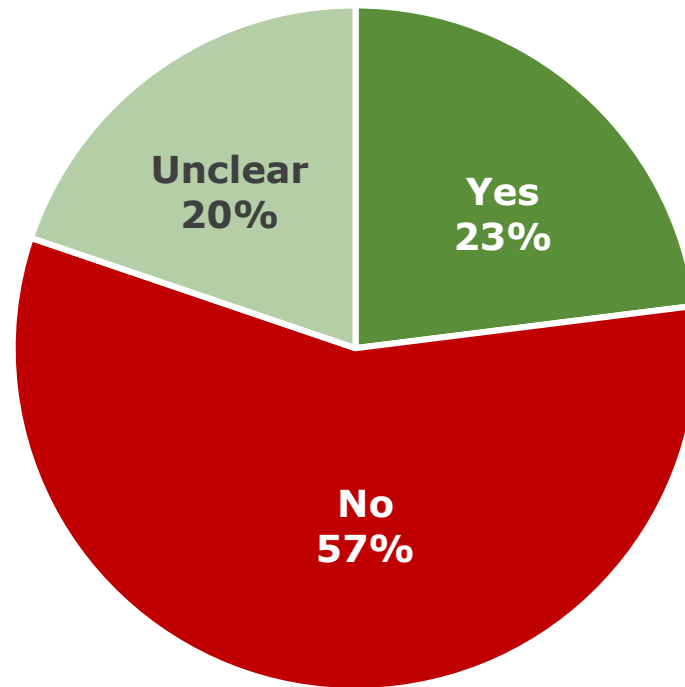
Depth of entrepreneurship training in bioeconomy study programmes by country:



n = 618 study programmes

Findings for vocational education and training

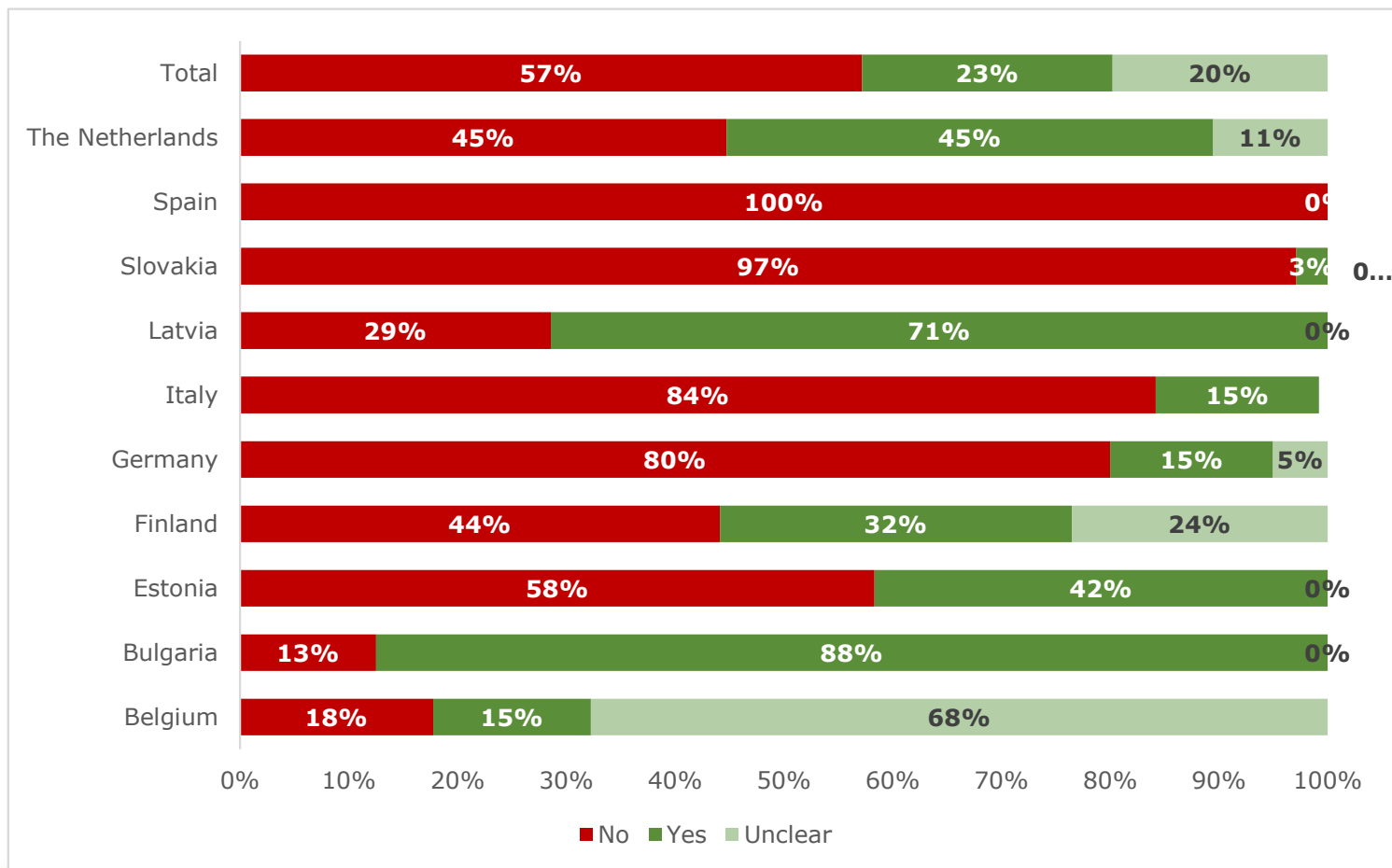
Availability of entrepreneurship training in VET programmes:



n = 278 study programmes

VET by country

Availability of entrepreneurship training in VET programmes by country:



n = 278 study programmes

Contact

Praise, blame, hints:

stefan.lilischkis@empirica.com

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BIObec, EBU, BIOCIRCE
Davide Viaggi,
University of Bologna

Title: Preparing the creation of Bio-Based Education Centres to meet industry needs and boost the contribution of the bioeconomy to societal challenges

Start: 1/9/2021; End: 29/2/2024

BBI contribution: 1,5M euro

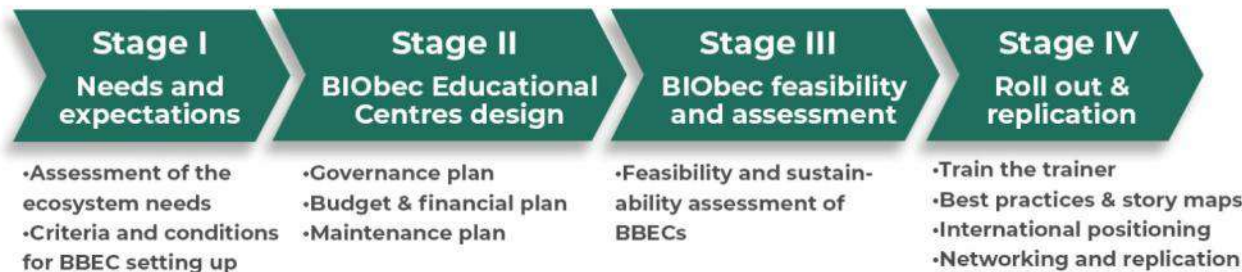
Coordination and Support Action

Partners: 19



BIOBEC activities and good practices

Activities:



Concrete inspirational good practices and findings:

- Project still at an early stage, however...
- Entrepreneurship & horizontal skills high in skill needs
- Challenges of collaboration among academia-industry

European Bioeconomy University – The alliance of excellence in education, research and innovation in the European Bioeconomy



The mission is the **empowerment of the European knowledge-based bioeconomy**:

- educating a new generation of European experts
- fostering rigorous, relevant and responsible research
- transferring knowledge into society and the economy

<http://www.european-bioeconomy-university.eu>



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA



EBU activities and good practices

The activities:

- Projects, forums and events, Position papers...

Concrete inspirational good practices: FOEBE - FOSTERING ENTREPRENEURSHIP FOR THE BIOECONOMY

- Erasmus+ project, September 2020 – August 2023
- Coordinated by AgroParisTech, France
- Main focus: design a blended curricula

Activities:

- design of skills portfolios and curricula
- Innovative teaching practices
- A digital learning platform
- Guidelines on innovative teaching formats
- Pedagogical resources
- Guidelines and recommendations



BIOCIRCE

Professional Master “Bioeconomy in the Circular Economy” (BIOCIRCE)

4 Universities (Bologna, Milan-Bicocca, Naples Federico II, Turin) and 4 companies

- ➔ Life science innovation
- ➔ Innovation from 'proof to concept' to market readiness
- ➔ Risk, regulation and governance of the bioeconomy
- ➔ Knowledge management and IP in life sciences
- ➔ New business models and value systems
- ➔ Financing of life science innovation and changing commercial R&D models and strategies



<https://masterbiocirce.com>

BIOCIRCE activities and good practices

Activities

- Teaching (4 weeks in different universities)
- Internship in industry
- Thesis

Concrete inspirational good practices and findings:

- Complementing degrees in biological science with business and entrepreneurship issues
- Focus on instruments and entrepreneurship as a cross-cutting topic

Cross cutting gaps & issues

- Personal attitudes vs. education (selection vs. improvement)
- Entrepreneur and creativity in a career perspective (in highly technical fields)
- Explicit attention to entrepreneurship (e.g. vs. business models)
- Student centered/Action learning
- «Permeability» of industry, research and education
- Unexploited opportunities from emphasis on innovation ->Focus on masters and PhD

Useful links and contacts

<https://biobec.eu/>

<http://www.european-bioeconomy-university.eu>

<https://european-bioeconomy-university.eu/education/foebe-fostering-entrepreneurship-for-the-bioeconomy/>

<https://masterbiocirce.com>

Paving the way towards Sustainable Entrepreneurship Education

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ICA CoP Bio-Edu
Han van Osch
Avans University of Applied Sciences

Introducing ICA Community of Practice Bioeconomy Education

Building a network for educational innovators in the domain of Bioeconomy.

Initiative of:

Mona-Annita Riihimäki from HAMK

Ingar Janzik from Forschungszentrum Jülich

Joseph Glössl from Boku

George Sakellaris from West Bohemian University

Costas Vorgias from University of Athens

Simon Heath from ICA

Han van Osch from Avans/HZ

Introducing ICA Community of Practice Bioeconomy Education, the goals

Develop educational projects to develop and evaluate new educational materials, strategies and innovative training concepts and

share experiences and good practices among educational actors coming from different educational sectors and regional perspectives, and

consult with industry and stakeholders about skills demands and educational outcomes can be organized.

Relation to Sustainable Entrepreneurship

- Global Bioeconomy Summit: How to shape education for a Sustainable Circular Bioeconomy? Entrepreneurship as example of interdisciplinarity.
- Always in relation to bioeconomy education: entrepreneurship is not the specific focus
- 19th and 20th of May: Colloquium focussing on developing the mindset for the sustainable circular bioeconomy.

Issues to be addressed

- How to stimulate/encourage students to be entrepreneurs
- Which competencies are underlying to sustainable entrepreneurship education?

Useful links and contacts

For further information:

Han van Osch

Avans University of Applied Sciences: www.avans.nl

Centre of Expertise Biobased Economy: www.coebbe.nl

Chair of ICA Community of Practice Bioeconomy Education [ICA - Europe - ICA Community of Practice for Bioeconomy Education in Europe](#)

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Go-Up Incubator
Assoc Prof Rosen Dimov, PhD
Board Member

Go-Up Incubator



An initiative
of the



The Business E-Incubator Go-Up emerged in October 2021, following years of complimentary efforts of **industrial organisations, universities, technological parks, business support and non-profit organisations** from **seven countries in Europe** (Bulgaria, Italy, Estonia, Moldova, Serbia, Turkey, and Bosnia and Herzegovina), with the support of the Horizon Results Booster service of the European Commission.

In the domain of **sustainable entrepreneurship education**, Go-Up aims to accelerate smart growth in Europe-wide by facilitating: startup companies, cooperativism, social entrepreneurship, impact investment, youth agri-preneurship and venture-building across the whole agri-food value chain. By ensuring support and networking of local and regional partners in the public, private, civil-society and academic sectors Go-Up strives to **build the capabilities of the local ecosystem and investors** to provide favourable conditions and resources for green entrepreneurship, and also **enable sustainable startups** to be able to grow, scale up and receive investment from environmentally conscious investors.

Go-Up's activities to foster and nurture sustainable entrepreneurship education

- Business incubation program and direct support of the business development of 'green' start-ups or innovative products / services;
- Targeted analysis and consulting to startups and investors about sustainable entrepreneurship/investment;
- Matchmaking of green startups and green investors, and supporting the negotiations;
- Development of new sustainable business models / adaptation strategies, suitable for the local and regional context;
- Trainings courses about sustainable business growth and impact investment;
- Information and public awareness-raising activities about sustainable entrepreneurship practises;
- Participation in cross-border cooperation and projects enabled by EU and international grants in the wider bioeconomy field.

Best Practices and Examples

- Currently incubating startups and supporting their business growth into sustainable, scalable businesses:
 - **HOPE Biotechnology from Turkey** has an innovative solution for the conversion of CO and CO₂ gases into a valuable final bioproduct using microorganisms.
 - **Sooo. From Norway** promotes sustainability topics and personal stories via their journal and events, organises sustainable tourism and exhibitions using VR headsets;
 - **We Save Food from the USA** provides an alternative to food waste from restaurants and stores, nurturing sustainable consumption and resilience of the agri-food value chain.
- Free webinars about various aspects of sustainable entrepreneurship. We bring together investors, startups, ecosystem stakeholders, please find the recordings here: https://youtu.be/JSU7PJ6_q1Q .
- Join our next webinar on **March 28 at 1430 CET**. Our topic is **women-led entrepreneurship in cleantech: diversity perspectives from Europe and Canada**. Would you like to speak or attend? Drop us an email.

Topics for discussion

- How to make sustainable entrepreneurship attractive to startups and investors?
- How to make it teachable? What tools and techniques could be the most effective one?
- How to make sustainable entrepreneurship education more immersive and attractive? Inspiring example of the startup Sooo that have built a VR-enabled space that can be used for learning close to the nature.



Useful links and contacts

Webpage: www.goupincubator.com

LinkedIn: <https://www.linkedin.com/company/goup-incubator>

Facebook: <https://www.facebook.com/Go.Up.Incubator>

Twitter: @Go_Up_Incubator

Recordings of previous webinars: https://youtu.be/JSU7PJ6_q1Q

Email: office@goupincubator.com

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**SIG – Sustainable Entrepreneurship
Education**
Lisa Ploum – Wageningen University

Keep the entrepreneurial genie out of the bottle!

Initiative following from 2 ICA colloquia and the first conference on sustainable entrepreneurship education

Speakers and participants from all over Europe → wide spread community of interested and connected teachers, researchers and learners.

Topics like competencies for sustainable entrepreneurship, teaching activities and institutional embeddedness.

List of past conferences and colloquia

5th ICA-Edu Colloquium Action to keep the entrepreneurial genie out of the bottle! Engaging students with sustainable entrepreneurial education in your curriculum was held online because of Covid-19 virus during the mornings of 26 to 28 May 2021. [See the programme](#) and [presentations](#). [See the Summary](#)

4th ICA-Edu Colloquium: Let the entrepreneurial genie out of the bottle! how will we stimulate the nascent entrepreneurial skills of our students? was held on 15 and 16 May 2019 in Leuven, Belgium. See the Programme and Presentations. [See the summary](#)

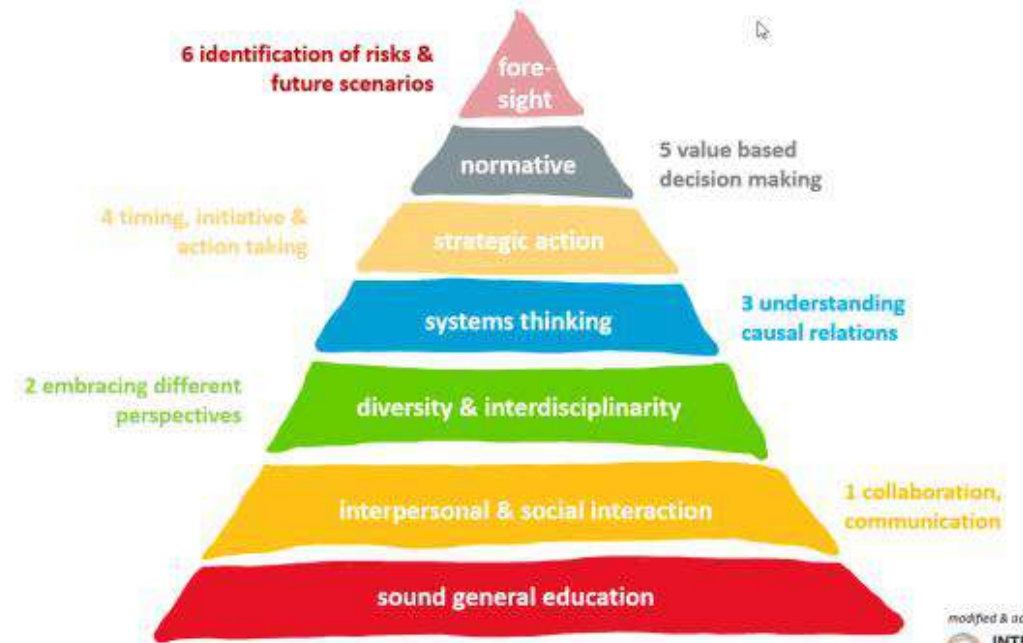
How to get involved?

Relevant (future) activities:

- SIG meet-up in Ghent on May 18 (registration via ICA website)
- Webinars
- Learning platform

Specific initiatives linked to the SIG

- INTRINSIC
- ABBEE: MOOC on advanced sustainable entrepreneurship in the bio-economy
- Entrepreneurial Mind-set Monitor
- Sustainable Entrepreneurship Scan measuring 6 competencies for sustainable entrepreneurship



modified & adds after:
INTRINSIC
@INTRINSIC_EU

SIG meeting in Ghent: what's on the menu?

Putting assessment in the spotlight

- 09.45 – 10.00* Welcome
- 10.00 – 11.00* Key note Andy Penaluna with round table
- 11.15 – 12.15* Key note Yvette Baggen with round table
- 12.15 – 12.30* Recap of the two sessions on assessment
- 12.30 – 14.00 Lunch buffet
- 14.00 – 17.00 Learning together: sharing best practices, diving into the learning activities developed in INTRINSIC and co-creating the SIG on sustainable entrepreneurship education.
- 18.00 – onwards ICA-colloquium reception and conference on May 19 and 20.

* Hybrid

SIG team and useful links

Jarkko Pyysiäinen jarkko.pyysiainen@helsinki.fi

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Guido Orzes Guido.Orzes@unibz.it

Yiorgos Gadanakis g.gadanakis@reading.ac.uk

Lisa Ploum lisa.ploum@wur.nl

<https://www.ica-europe.info/>

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INTRINSIC project
Andreas, Zitek
*University of Natural Resources
and Life Sciences, Vienna*



INnovative educaTion foR sustainable eNtrepreneurShip In Life sCiences

- INTRINSIC aims at supporting higher education teachers at Life Science Universities in Europe to enrich their existing courses with innovative teaching activities to support the development of a sustainable entrepreneurial mindset and associated competences in their students.
- Sustainable entrepreneurship can be defined as *entrepreneurial activity aiming at solving problems related to sustainability by the discovery, creation, and exploitation of opportunities that contribute to the SDGs by generating social, environmental and economic value for others in society.*
- A composite of six transversal skills needed has been identified (Ploum et al. 2018)
 1. interpersonal competence,
 2. diversity and interdisciplinary competence,
 3. systems thinking competence,
 4. strategic action competence,
 5. normative competence and
 6. foresighted thinking competence).



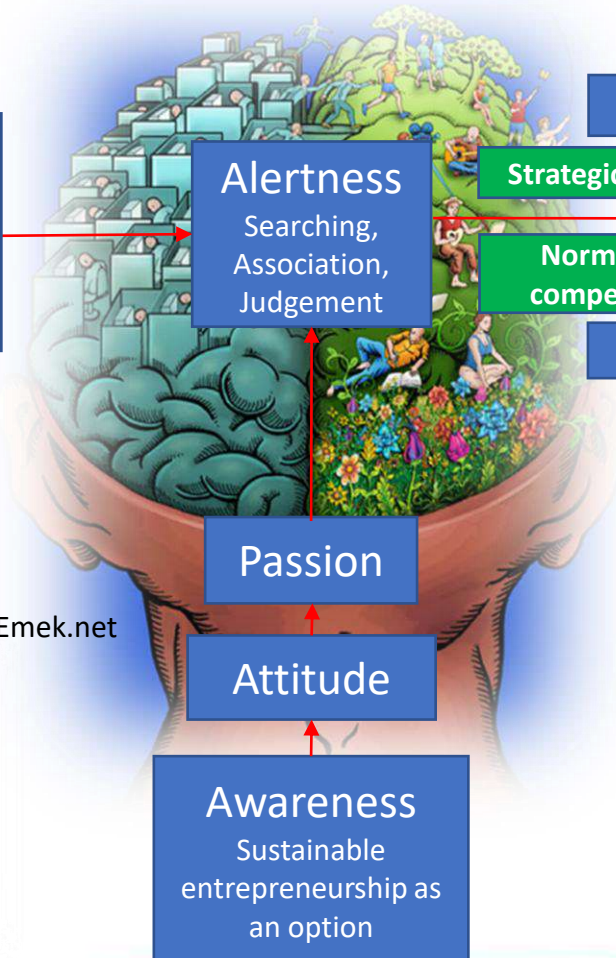
The resources of INTRINSIC related to Sustainable Entrepreneurship Education

1. Modular interactive web-platform & Connected Educator platform
 - Webinar series, and conference Keynotes & much more!
2. Sustainable Entrepreneurship Mindset Monitor App
 - Innovative tracking tool for mindset changes, based on a tool from WU (Lisa Ploum, Yvette Baggen)
3. Case studies, testimonials & application recommendation/good practice
 - Including a mindset model for targeted development
4. The Sustainable Entrepreneurship Teaching Design Tool
 - Framed by the INTRINSIC circular teaching model
5. The Sustainable Entrepreneurship Teaching Training Course

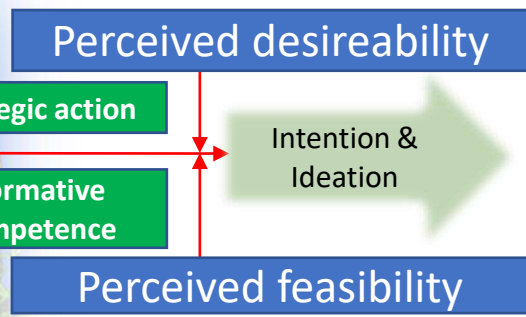
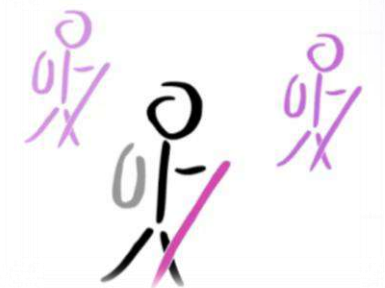
The sustainable entrepreneurial mindset in action



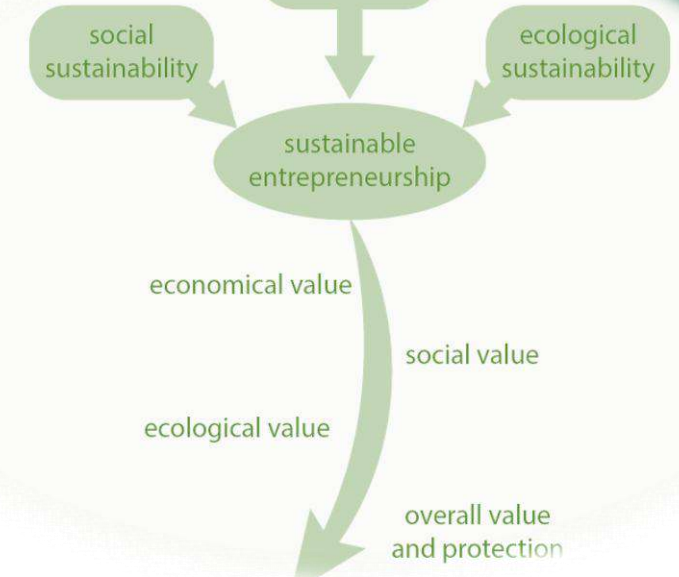
Motivation
 Perception of threat of natural, communal environment
 Pro-environmental behaviour values
 Moral competence



By Emek.net



- Foresight thinking
- Social skills
- Interpersonal communication
- Interpersonal competence



My field(s) of expertise is/are ...
 Fish ecology

My further field(s) of interest is/are ...
 Career Counseling

In my role as an educator at a Life Science University,

- I believe my students should live up to their full potential
- I believe every human should get a chance to transcend him/herself!
- **Therefore my teaching is inspiring and I try to do what I preach - I try to be a role model!**



https://intrinsic.boku.ac.at/att/tdt_manifesto.php

Tasks
 official link to SDGs

Learning goals
 based on UNESCO 2017

Search options

▼ Full text search

Search

▼ Type of activity

Course planning
 Assessment/evaluation
 Game
 Video
 Talk
 Assignment
 Case

▼ Level

Beginner
 Intermediate
 Expert

Search results

Business Case Analysis

Using Business Case Studies as part of a course
 Skills: Foresighted thinking, Strategic action, Systems thinking
 SDG: -

feedback open pdf

Reversed Incubator (RI)

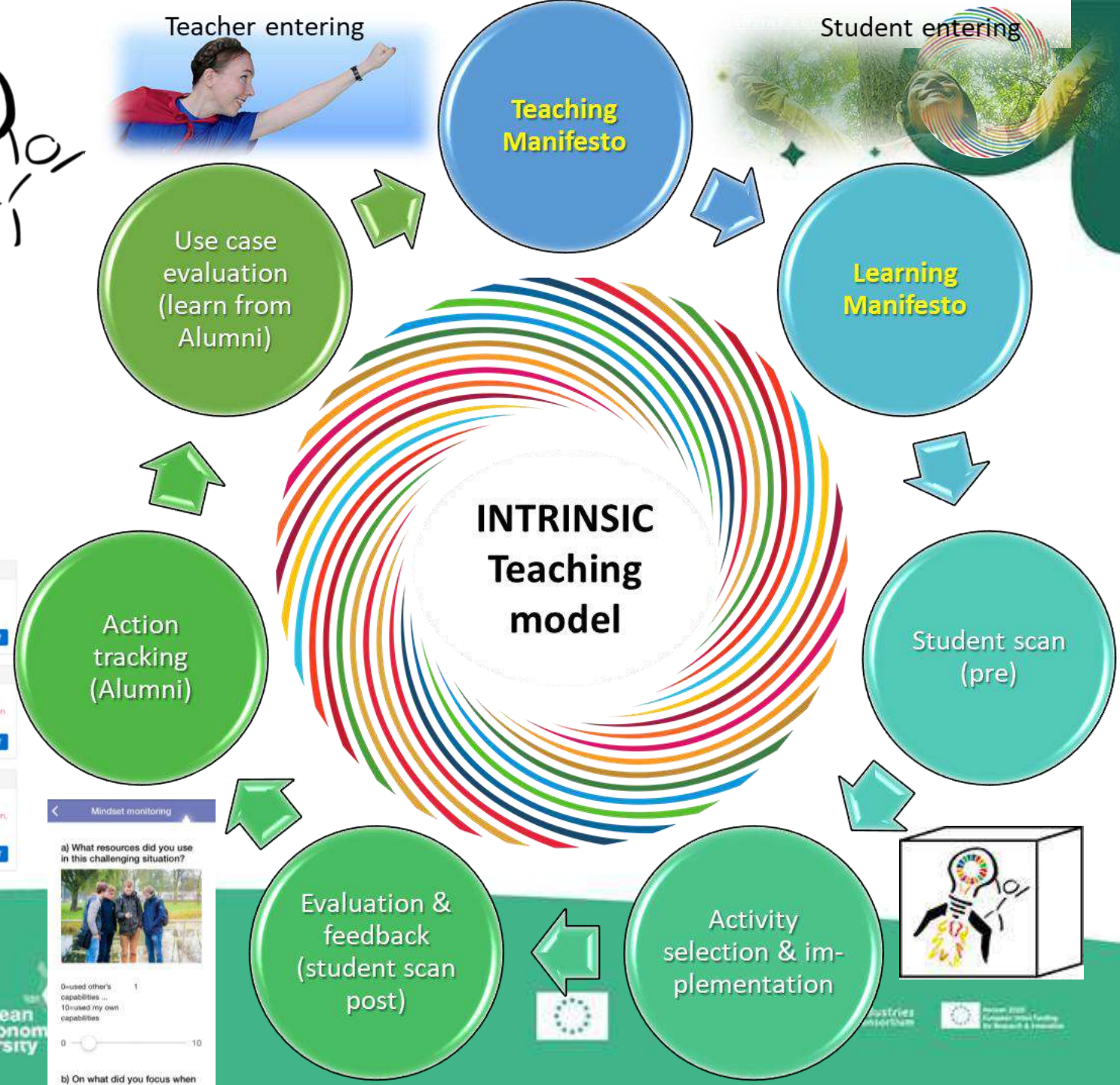
The RI approach translates ideas into action
 Skills: Foresighted thinking, Diversity and interdisciplinarity, Interpersonal competence, Normative competence, Strategic action
 SDG: -

feedback open pdf

Sustainable Canvas Business Model

Developing an innovative & sustainable business
 Skills: Foresighted thinking, Diversity and interdisciplinarity, Interpersonal competence, Normative competence, Strategic action, Systems thinking
 SDG: -

feedback open pdf



Mindset monitoring

a) What resources did you use in this challenging situation?

0=used other's capabilities ...
 10=used my own capabilities

0 — 10

b) On what did you focus when

Useful links and contacts



Webpage: <https://intrinsic.eu/>

Webinars of the INTRINSIC project: <https://www.intrinsic.eu/webinars-of-the-intrinsic-project.html>

Presentations of the 1st International Conference for Sustainable Entrepreneurship Education (1st SustEntEd): <https://intrinsic.eu/final-conference.html>

INTRINSIC Teaching Approach: <https://intrinsic.eu/intrinsic-teaching-approach.html>

Connected Educator: <https://intrinsic.eu/ce>

Mindset Monitor: <https://www.intrinsic.eu/entrepreneur-monitoring-app.html>

Teaching Manifesto: https://intrinsic.boku.ac.at/att/tdt_manifesto.php

Facebook: <https://www.facebook.com/INTRINSIC.EU>

Twitter: @INTRINSIC_EU



DI Dr. Andreas Zitek, MSc(GIS)

Teaching and Learning Services, Division of E-Learning and Didactics
University of Natural Resources and Life Sciences, Vienna

E-mail: andreas.zitek@boku.ac.at

Paving the way towards Sustainable Entrepreneurship Education

15 March 2022
from 10.00 to 13.00 (Online)



The EntreComp Community
Elin McCallum
Bantani Education



Developing a global community of people and organisations involved in entrepreneurial learning policy and practice.

Involving all sectors and learning contexts.

Underpinned by EntreComp.

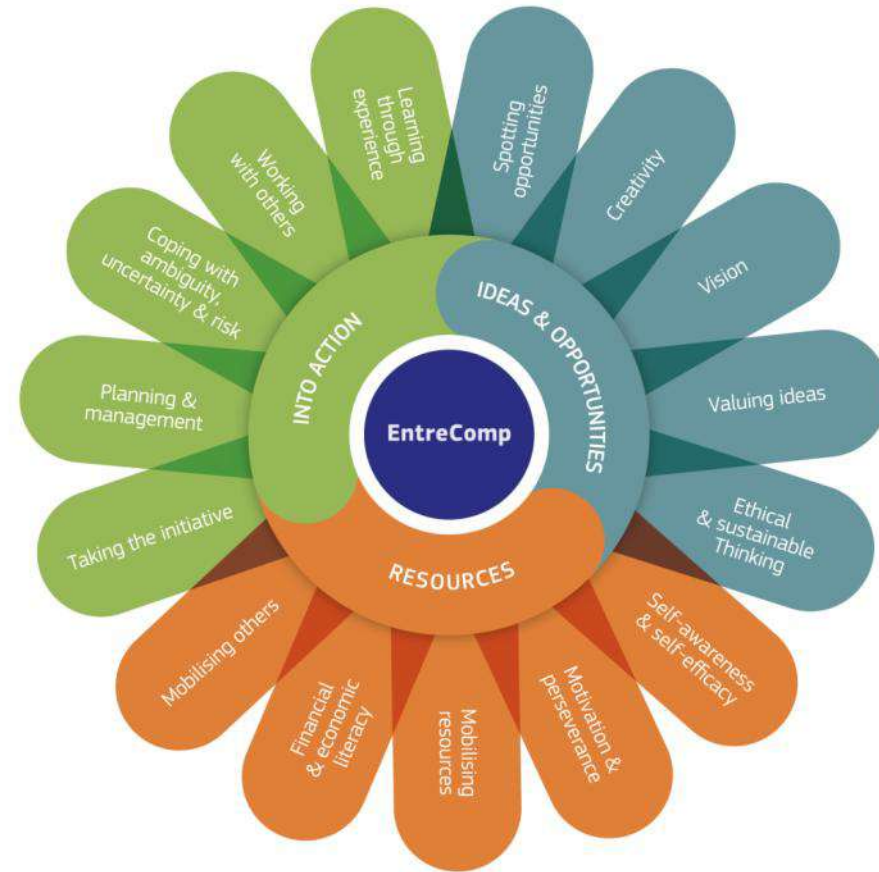
Supported by

thinqi



Co-funded by the COSME programme of the European Union

Entrepreneurship is when you **act** upon **opportunities** and **ideas** and transform them into **value** for others. The value that is created can be **financial, cultural, or social.**



EntreComp 2016
Danish Foundation of Entrepreneurship
/ FFE 2011



Network

- Monthly challenges and activities
- Events calendar
- Networking tool
- Community groups

Learn

- Digital library
- Bitesize learning
- MOOCs

Share

- Your ideas
- Your expertise
- Your projects and resources

Be recognised

- Digital Credentials
- EntreComp Champions Awards – supported by EU

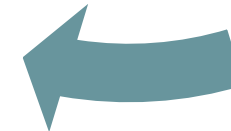
Network

Learn



Recognise

Share



Communities of Practice launching May 2022

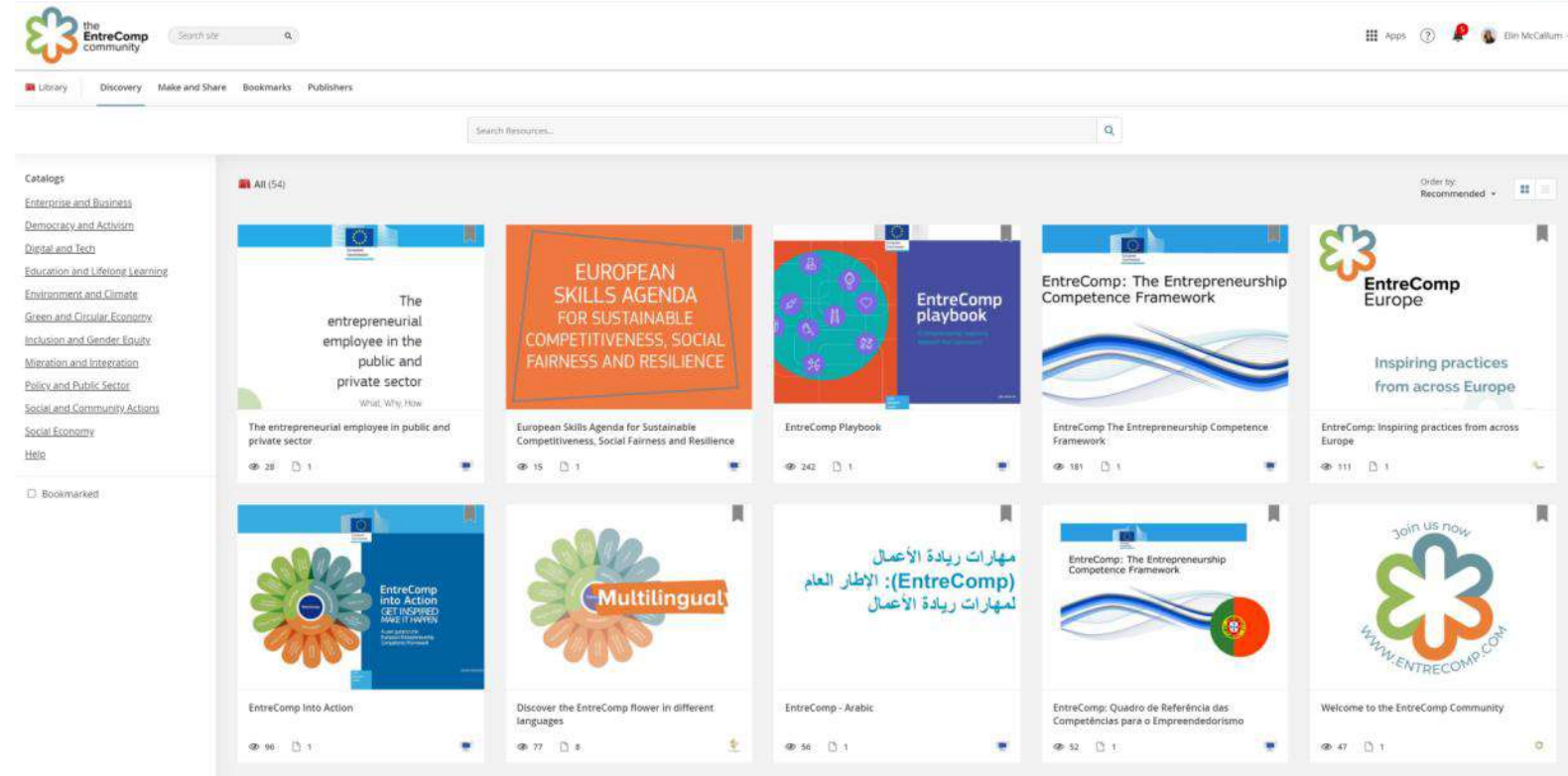
Entrepreneurial mindsets	Materahub/Bantani
EntreComp for Food Systems	EIT Food
EntreComp for Girls and Women	EIT Raw Materials
EntreComp for Digital	All Digital
EntreComp for Green and Circular	EIT Raw Materials
EntreComp for Social and Creative	Materahub

National Communities – development ongoing

Italy	EntreCompEurope - Materahub
Spain	EntreCompEurope – Extremadura/CISE
Moldova	EntreCompEurope – CCIM/NARD
Belgium	Service Publique Wallonie
Turkey	EntreCompEurope - TOBB
Brazil	SEBRAE

- Enterprise and Business
- Democracy and Activism
- Digital and Tech
- Education and Lifelong Learning
- Environment and Climate
- Green and Circular Economy
- Inclusion and Gender Equity
- Migration and Integration
- Policy and Public Sector
- Social and Community Actions
- Social Economy

- Language
- Learning sector
- Practice areas
- Type of resource
- Sustainable Development Goals
- Publisher



The screenshot shows the digital library interface with a search bar at the top and a grid of resource cards. The cards include:

- The entrepreneurial employee in the public and private sector
- EUROPEAN SKILLS AGENDA FOR SUSTAINABLE COMPETITIVENESS, SOCIAL FAIRNESS AND RESILIENCE
- EntreComp Playbook
- EntreComp: The Entrepreneurship Competence Framework
- EntreComp Europe: Inspiring practices from across Europe
- EntreComp Into Action: GET INSPIRED AND GET INVOLVED
- Multilingual: Discover the EntreComp flower in different languages
- EntreComp - Arabic: مهارات ريادة الأعمال (EntreComp): الإطار العام لمهارات ريادة الأعمال
- EntreComp: The Entrepreneurship Competence Framework (Portuguese version)
- Welcome to the EntreComp Community

Supporting or using EntreComp...



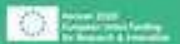
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 . A L L .
 . D I G I T A L .

ENHANCING
 DIGITAL SKILLS
 ACROSS EUROPE



- Involving:
- National Stakeholders
 - Youth workers
 - Educators and teachers
 - Universities
 - Enterprise support
 - Employers
 - EU networks
 - EU institutions
 - Global actors





the
EntreComp
community

Join us!

www.entrecomp.com

Paving the way towards Sustainable Entrepreneurship Education

15 March 2022
from 10.00 to 13.00 (Online)



Applying EntreComp to
attract young people to the
1st European manufacturing
sector: the agrifood industry



EntreComp
Food

EntreCompFood project
Urška Pivk Kupirovič, PhD
CCIS-CAFE

Food REVOLUTION is happening → accelerating INNOVATION is needed:
KEY TO SUCCESS are entrepreneurial competences



**Moving towards a more healthy and sustainable EU food system,
a corner stone of the European Green Deal**



Make sure Europeans get healthy, affordable and sustainable food



Tackle climate change



Protect the environment and preserve biodiversity

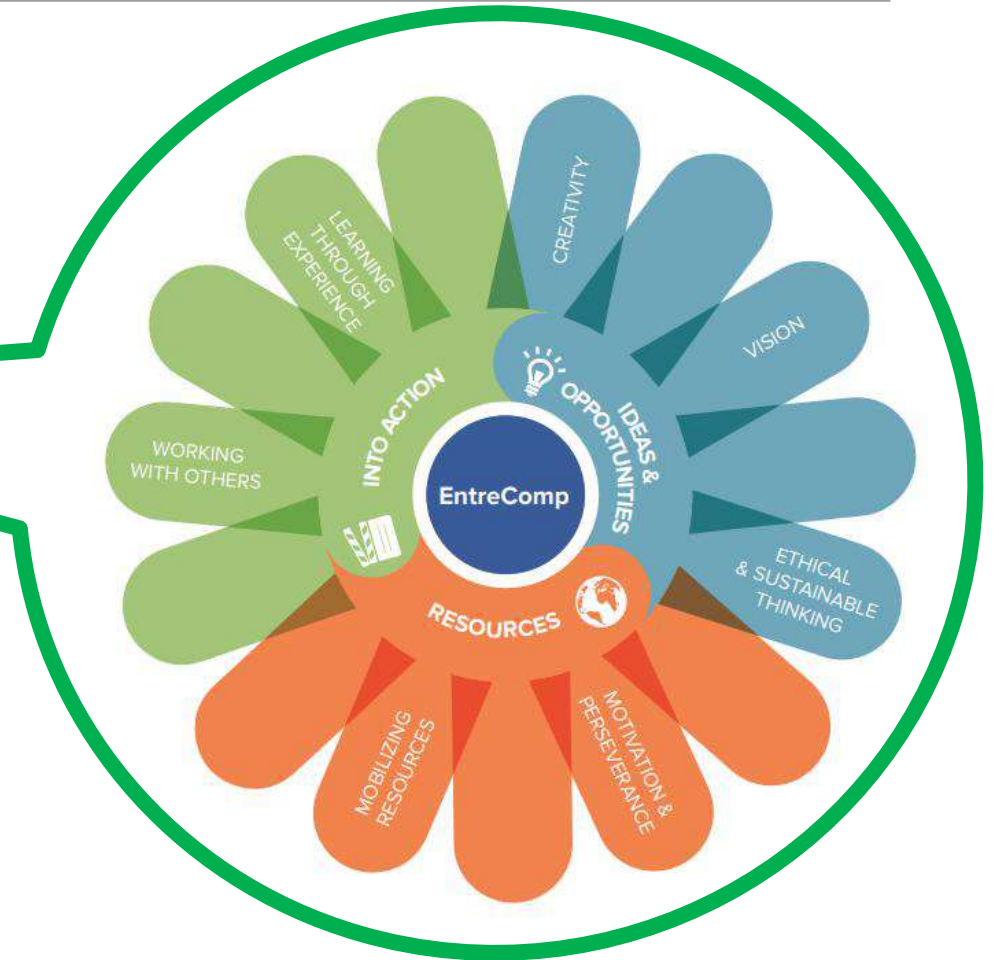


Fair economic return in the food chain



Increase organic farming

Building entrepreneurial mindset already during education: To turn ideas into action and create value for others.



Project EntreCompFood will **design, test and assess the training opportunities** based on **EntreComp** framework to best **stimulate** innovation and **entrepreneurship** among students and young entrepreneurs in **the agrifood sector**.



ECOTROPHELIA



The EntreCompFood special award at Ecotrophelia in 2021

The EntreCompFood special award was created by the project partners and was applied to the national Ecotrophelia competitions in 2021. Have a look how was it implemented in Spain, Slovenia and France.

Setting SMART goals with KPI help us keep on track



|SlideSalad.com

slidesalad

SMART: Develop a product that is good for health – is eligible to carry one health claim on immune system.

KPI: The product is tasteful but with less than 10 g of sugar / 100 g, is eligible to carry one health claim.

MOTIVATION – goes up & down



1st TRAIN of EXCITEMENT



2nd TRAIN of HELL



3rd TRAIN of VICTORY

Learning through experience

Learn how to give & receive Feedback



Useful links and contacts

JOIN US AT INTERNATIONAL
DISSEMINATION EVENTS:

- Barcelona 5th of April 2022
- Paris 17th of October 2022

Let's connect on LinkedIn:
[https://www.linkedin.com/
in/urska-pivk-kupirovic/](https://www.linkedin.com/in/urska-pivk-kupirovic/)

INNOVATION, ENTREPRENEURSHIP AND TRAINING IN THE FOOD SECTOR

Tuesday, April 5th, 2022

#2 MEETING - ENTRECOMPFOOD INTERNATIONAL CONFERENCE

14:15 - 14:30 Opening (FIAB).

14:30 - 15:00 Presentation of the EntreCompFood (AE) project

- EntreComp application to attract young people to the first European manufacturing sector: the agrifood industry
- Entrepreneurship in Spain. Andalusia success case story

15:00 - 15:15 ENTRECOMP, The European Entrepreneurship Competence Framework. Lillian Weikert.

15:15 - 15:30 How to win the EntreCompFood Entrepreneurship award at Ecotrophelia (ANIA).

15:30 - 15:45 EntreCompFood Ecotrophelia Spain 2022 Awards Ceremony (FIAB).

15:45 - 16:00 History of Ecotrophelia in France (AGROPARISTECH).

15:45 - 16:15 Organizational culture to boost innovation (Chamber of Commerce and Industry of Slovenia - CCIS CAFÉ).

16:15 - 16:30 Transforming study obligation into a boosting for the development of innovative products
(University of Ljubljana - Biotechnical Faculty).

16:45 - 17:00 Closing (CCIS-CAFÉ).

ALIBER

LÓ QUE NADIE VE BONDE TODOS MIRAN

Paving the way towards Sustainable Entrepreneurship Education

15 March 2022
from 10.00 to 13.00 (Online)



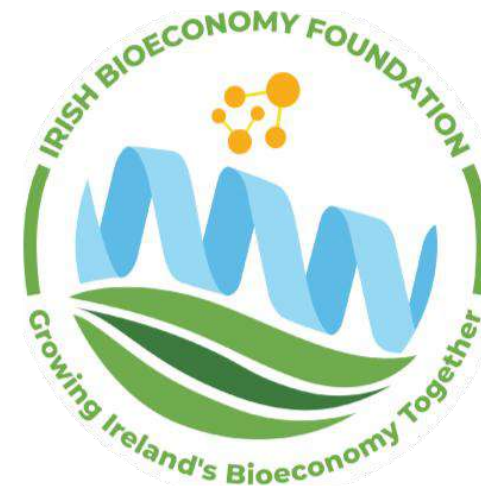
BioeconomyVentures and
MPowerBIO
Filippo Giancarlo Martinelli
Irish Bioeconomy Foundation (IBF)

Introduction to Speaker and Organisation



Filippo Giancarlo Martinelli
European Ambassador
(MBA, PDEng, MSc)

Filippo@bioeconomyfoundation.com



Irish Bioeconomy Foundation (IBF)
info@bioeconomyfoundation.com



Introduction MPowerBIO



- MPowerBIO- eM-POWERing SME Clusters to help SMEs overcome the valley of death.
- Aims to empower clusters to be better equipped to help SMEs overcome the challenge of finding sufficient investment to get from idea to business.
- Train Clusters to create awareness about available investment sources.
- Train SMEs to improve their business skills and prepare them for fundraising.
- Engage clusters and SMEs to join the Capacity Building Program and Business Support Programme.
- Setup and organise two final pitching events.



- Capacity Building Programme (CBP) to train Clusters to increase success rate in helping SME members gain access to investment.
- Business Support Programme (BSP) to train SMEs to improve their investment readiness and pitching skills to attract investors.
- SME training includes services selected to meet the needs of the SMEs such as: Bioeconomy bootcamps, coaching, e-learning, pitching competitions, networking groups and contact with investors.
- SMEs use these skills to pitch business plan at regional and international events and get in contact with investors.



Introduction BioeconomyVentures

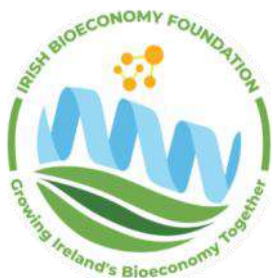


- BioeconomyVentures- Raising disruptive ventures, start-ups and spin-offs to the top.
- Aims to build the reference platform for bioeconomy-based start-ups and spin-offs seeking to gain access to finance.
- Mobilise entrepreneurship ecosystem with 20 ambassadors and 50 pitching events.
- Create an interactive platform that will serve as a main meeting point for the bioeconomy entrepreneurship field.
- Match and Connect start-ups/spin-offs with investors/corporates.



- Tailored/structured business support & growth programme to enhance competencies/skills and establish bridges with key stakeholders.
- Matchmaking and funding concierge services to support and guide the engaged start-ups & spin-offs in their business growth and access to finance.
- Matchmaking events help SMEs prepare their participation in international events.
- Start-up funding concierge will be a growing intelligence database to draw on, which will be systematically enriched via feedback.
- Business and Investment Readiness Programme (ABiR) will be focused on the real needs of emerging ventures and on the mapping of available services to date

Useful links and contacts



Irish Bioeconomy Foundation (IBF)

Website:

<https://bioeconomyfoundation.com/>

LinkedIn:

<https://www.linkedin.com/company/irish-bioeconomy-foundation/>

Twitter:

<https://twitter.com/IrishBioeconomy>



MPowerBIO Project

Website: <https://mpowerbio.eu/>

LinkedIn:

<https://www.linkedin.com/company/mpowerbio/>

Twitter:

https://twitter.com/MPowerBIO_EU



BioeconomyVentures Project

Website:

<https://www.bioeconomyventures.eu/>

LinkedIn:

<https://www.linkedin.com/company/bioeconomyventures/>

Twitter:

<https://twitter.com/BioeconomyV>



Agenda

11.30-11.40	Coffee break
11.40-11.45	Introduction to the interactive session
	What are the societal, environmental and economic impacts of Sustainable Entrepreneurship? The need of integrating entrepreneurial education and sustainable education.
11.45-12.50	Interactive session
	<ul style="list-style-type: none">• What are the competences of a sustainable entrepreneur?• How education providers can respond?<ul style="list-style-type: none">◦ What level of education can provide Sustainable Entrepreneurship Education?◦ How? What type of actions (capacity building, formal/informal education, incubators, etc...)◦ Who can undertake this task?• Good practices of Sustainable Entrepreneurship Education in Europe: sharing of concrete examples/case studies.• Recommendations to address the gaps.
12.50-13.00	Conclusions

Useful links shared via chat

- **Selenia Marinelli**
T2BIO capacity building registration form
<https://forms.office.com/Pages/ResponsePage.aspx?id=FgjCosZ-ekmt7riw9-RScQcCk4U0zmVKpkFoScJjFIFUMFpIU0s0SkpKR0xUSkc3RDhRT1BDQkVGVWC4u>
- **Susanna Albertini**
If your project/initiative is dealing with bioeconomy ecosystem support, please contact info@eubionet.eu to become partner - [The European Bioeconomy Network – www.eubionet.eu](http://www.eubionet.eu)
- **Marco Maria Grande (UNIBO)**
- Please, take few minutes to contribute to the BIOBEC survey, to help the project to design Bioeconomy Competence Centers that are responsive to the stakeholders' needs
SURVEY - European and regional analysis of the needs, opportunities and expectations of BBEC:
https://docs.google.com/forms/d/e/1FAIpQLSfqU3GB9jXwl_3iXnbOIZM5bhFvCF81jAvf9mQPYzExcQ1CNQ/viewform
- **Marine Godaux**
If you are interested in bioeconomy entrepreneurship projects, you can follow FOEBE (Fostering Entrepreneurship for the BioEconomy) Erasmus+ project on LinkedIn: <https://www.linkedin.com/in/foebe-erasmus-plus-2aa5ab205/>
- **Darina Zaimova/Rosen Dimov**
<https://www.goupincubator.com/>
You could always email us at Office@goupincubator.com . We are open to all cooperation across the bioeconomy ecosystem.
- **Lisa Ploum - WUR**
Also check out: <https://www.abbee.eu/> which has great MOOCs on bio-based economy and advanced sustainable entrepreneurship

Useful links shared via chat

- **Andreas Zitek**
The sustainable entrepreneurial journey: <https://vimeo.com/396341075>
Teaching Manifesto: https://intrinsic.boku.ac.at/att/tdt_manifesto.php
Webpage: <https://intrinsic.eu/>
- **Elvira Tarsitano**
I am attaching an abstract of a case study that I would have liked to discuss with you in the second interactive part of the meeting. https://eubionet.eu/wp-content/uploads/2022/03/Tarsitano_Promoting-Sustainability-in-Higher-Education.pdf
- **Urška Pivk Kupirovič - GZS-ZKŽP**
Please give your input via Mentimeter: <https://www.menti.com/7x6rqab5zm>
- **Elin McCallum**
Direct link to the EntreComp Library (as hosted in The EntreComp Community):
<https://entrecomp.thinqi.com/repository/discovery?sort=recommended&strict=0>
- **Urška Pivk Kupirovič - GZS-ZKŽP**
The results will be available here: <https://www.mentimeter.com/s/0cb6760e20328b0362790132ab1a59c0/a608c4dbbae2>
JOIN US at EntreCompFood dissemination event in Barcelona on the 5th of April. <https://aliber.es/registration>
Program of EntreCompFood event: https://www.gzs.si/Portals/283/Vsebina/Priponke/ALIBER_2022_ENG_08_03.pdf
- **Filippo Martinelli (IBF)**
<https://platform.bioeconomyventures.eu/> insert your data there for a free pre-registration available for a few more weeks only.
Target group: Innovators (startups/scaleups/smes) and Investors (VS, BA, funds).
If you are not in the above group: Clusters and NGO can support via our 20 ambassador network and 46 E&E workshops and 6 open calls for challenges/solutions... <https://www.bioeconomyventures.eu/>

Useful links shared via chat

- **John Vos (BTG)**
 - The project Allthings.bioPRO is developing a serious game with the aim to bring the bioeconomy closer to the citizens and sensitise them with regard to already existing bio-based products. It is not addressing entrepreneurs per se, but an innovative tool for non-formal bioeconomy education of persons of all ages and standing. URL: www.allthings.bio.
A test version of the game is scheduled to be released after summer 2022.
- **Johannes Ernst (FH Burgenland)**
 - Here is an invitation for all to the hybrid conference "Academic Education and its Impact on Entrepreneurship and Sustainability" in Eisenstadt in 18-19 May 2022 (Call for Abstracts – Abstract submission is free, event is free): <https://conference.cloudearthi.com/>
- **BIOEAST HUB CZ Marie**
 - Final publication on entrepreneurship education from the project „Peer-learning activities in entrepreneurship education and in women’s entrepreneurship”: A guide for fostering entrepreneurship education: <https://op.europa.eu/en/publication-detail/-/publication/734447fa-58a7-11ec-91ac-01aa75ed71a1/language-en/format-PDF/source-246062167>
- **Marco Rogai (PEDAL)**
 - Gamified learning about the circular economy: <https://circula.fi/en/> This is the link to the game, it is called Circula
- **Stefan Lilischkis**
 - The link to register for the Workshop of the Project "promote Education, Training and skills across the bioeconomy" on 26 April 2022 is just out: https://ec.europa.eu/eusurvey/runner/BioeconomyEducation_SecondWorkshop2022. I would be please to see many of you there.
- **Kåre Moberg**
 - Call for short papers (4 pages) describing innovative educational initiatives focusing on sustainable entrepreneurship <https://nordsent.com/media/p1vdgsql/call-for-papers.pdf>
Hybrid seminar about addressing real world challenges – 5th of April 13.00-16.00 - <https://nordsent.com/events/>

Link to the MIRO Board [open for contribution](https://miro.com/app/board/uXjVOIdKNmU=/) up to Sunday 20/03

• <https://miro.com/app/board/uXjVOIdKNmU=/>

