

# VET4BioECONOMY

FINAL CONFERENCE

14.-15. JUNE 2021

# Erasmus+ project - VET4BioECONOMY - Professional training in forest bioeconomy in Austria, Slovenia and Croatia

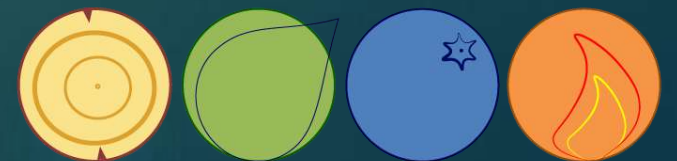
Croatian Forest Research Institute

dr.sc. Dijana Vuletić, project leader

Marta Curman, mag.ing.silv. – project leader during first two years

dr.sc. Silvija Krajter Ostoić – team member and supervisor

Anton Brenko, mag.ing. silv. – team member

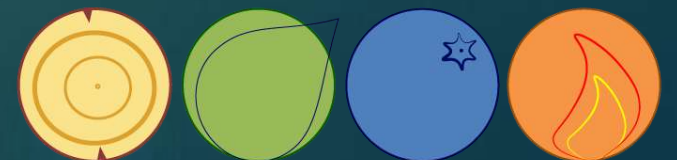




# Partners



- CFRI (coordinator, experts in basic and applied research in forestry, including forest related policies),
- IRMO (experts in resource economy and bioeconomy, adult education according to the European Qualification Framework),
- ALGEBRA (expert in innovative approach to education and multimedia development)
- SFI (experts in bioenergy and biomass, in basic and applied research),
- SFS (experts in forestry and extension providing),
- BOKU (experts in forest bioeconomy),
- BFW (experts in forest bioeconomy, VET implementation)



# Overall goal of the Project

- ▶ Is to **contribute to the enhancement of the employability of (young) forestry professionals** by developing a new training program on forest-based bioeconomy, that has been missing so far in project countries.
- ▶ That training program should be innovative and modern for which the new **curriculum need to be developed and according to the curriculum the e-learning course content with all needed learning and multimedia materials about forest-based bioeconomy**, was developed.
- ▶ We aimed to different groups of users meaning not only forestry and wood processing professionals, but also pupils and students who are interested in new ways of using the traditional materials and to use of innovation in starting the new business related to bioeconomy.
- ▶ The regional and local governments' (economy departments), chambers of commerce, chambers of entrepreneurs, chambers of forestry and wood processing engineers whose mission is providing education and professional training to their members were targeted as well.

The poster features a white background with a dark red border. At the top, it displays logos for the Agency for Mobility and EU Programmes, Erasmus+, and the European Union. The main title is 'INNOVATIVE VET FOR KEY COMPETENCES IN THE EMERGING FIELD OF FOREST BIOECONOMY'. Below the title is a horizontal banner with images of wood chips, a green leaf with pills, and a piece of burlap. Underneath the banner are four colored circles (yellow, green, blue, orange) and the text 'VET4BioECONOMY'. A second banner below shows images of stacked logs and hands holding a glass. At the bottom, the website 'www.vet4bioeconomy.sumins.hr' is listed, followed by logos for various partner organizations including BFW, IRMO, ZAVOD ZA GOŠTINJE SLOVENIJE, and ALGEBRA. A small disclaimer at the very bottom states: 'This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.'

# Outputs and tasks

Project outputs are **C – training activities**

- C1 – transnational training activities

**Intellectual outputs – IO1 – curriculum**

- IO2 – e-course content, e-course materials

E-course materials on Moodle platform

- workshop on multimedia materials development

Piloting of the e-course – in partner countries (30 participants)

- Evaluation of the course

**Dissemination activities and materials – project web page**

<https://vet4bioeconomy.sumins.hr>, face book, linked in, twitter, youtube

- 1<sup>st</sup> brochure on project objectives
- 2<sup>nd</sup> brochure on e-course content

Project management TNPM – Transnational project meetings

- 4 meetings – 3 physical and one virtual due to Covid-19
- 23 virtual Skype and Zoom meetings

**VET4BioECONOMY**

**WHERE DID WE GET AN IDEA?**

Forest bioeconomy becomes one of the guiding paradigms for the forest based sector, nevertheless there is a lack of educational opportunities in vocational education and training (VET) for this topic.

**What are the objectives?**

The objectives are to increase the knowledge and provide key competences in forest bioeconomy to forestry related professionals. At the same time, we aim to increase current basis of VET programmes in partner countries with innovative and comprehensive forest bioeconomy training programmes.

**THE PROJECT WILL RESULT IN THE NEW E-COURSE ON FOREST BIOECONOMY.**

Unique forest bioeconomy curriculum and e-course will be developed in order to ensure comprehensive content for knowledge and key competences in forest bioeconomy for wider forest bioeconomy stakeholders.

Multi-media e-learning content will be freely available in English, Croatian, German and Slovenian languages.

**KEY FACTS:**

Programme: Erasmus+  
Key action 2: Cooperation for innovation and the Exchange of good practices  
Action: Strategic Partnerships for vocational education and training  
Duration: 1/9/2018 – 31/8/2022  
Budget: 365,078.00 €  
Target groups: Forestry and woodprocessing professionals

**Innovative VET for Key Competences in the Emerging Field of Forest Bioeconomy**

**VET4BioECONOMY**

[www.vet4bioeconomy.sumins.hr](http://www.vet4bioeconomy.sumins.hr)

**VET4BioECONOMY**

**Why is an E-Course about forest-based bioeconomy necessary?**

Forest bioeconomy becomes one of the guiding paradigms for the forest based sector, nevertheless there is a lack of educational opportunities in vocational education and training (VET) for this topic.

**What are the main sections of the course?**

1. Introduction to forest based bioeconomy
2. Forest based value chain
3. Cross-sectional analysis
4. Policy of bioeconomy
5. Working entrepreneurship and innovation
6. Best practices examples

**What is the E-Course about and who is the target group?**

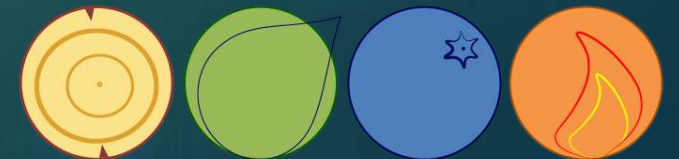
The e-course is designed to provide knowledge on Forest based Bioeconomy. Because of the specific content and topic, the course is intended for all levels. First beginners to experts. In general, the main target group are forest owners, forest high school students, and forest engineers. The whole e-learning content is translated into English, Croatian, Slovenian and German.

**What is the learning outcome?**

Participants learn about the key business, social, and environmental challenges of the forest-based bioeconomy in the current policy framework. National participants will get information about business opportunities and business plans in the forest-based bioeconomy which will be supported by best practices examples from Croatia, Slovenia and Austria. Learn best model companies, participants will receive certificate.

**E-course for key competences in the emerging field of forest-based bioeconomy**

**VET4BioECONOMY**



# TNP Meetings

On kick-off or **1st TNPM** partners get an overview of project activities, financial and contractual obligations and future plan. Zagreb 5/10/2018.

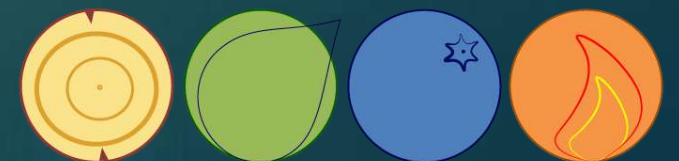


**3rd TNPM** was organized in Zagreb 21-22/11/2019 where partners discussed and elarn on multimedia material development.

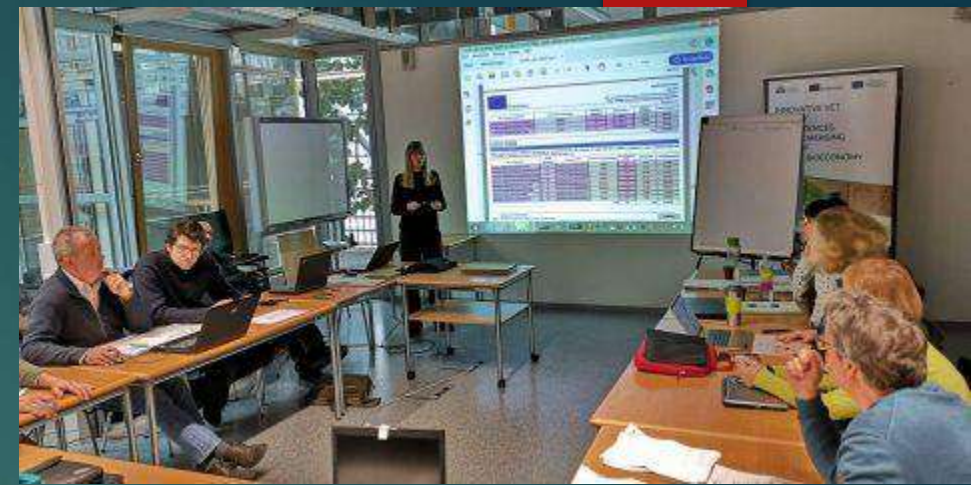
**4th TNPM** virtual meeting on 31st of August 2020. The meeting hosted by Wolfgang Engl (BFW) gathered partners to discuss e-course status.



SFI hosted our **2nd TNPM** on 5/6/2019 in Ljubljana with the main goal to discuss the draft curriculum on forest based bioeconomy and the work plan for the next intellectual output – e-course on forest based bioeconomy.



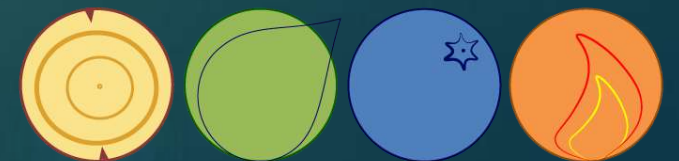
# The transnational training event (C1) on forest bioeconomy held in Vienna from 4-8.3.2019.



During the event, participants gained a comprehensive knowledge in forest bioeconomy –its potential, political framework, forest sustainability indicators in the new light of forest bioeconomy and the importance of innovation in forest bioeconomy.

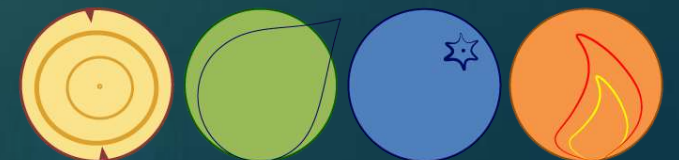
On the excursion in Tulln, participants had an opportunity to get an insight into the new products derived from wood, such as isolation material, food packaging material, construction material and toys made of wood-plastic composition and much more.

After this event partners will be able to use gained knowledge in preparation of curriculum and future e-learning course on forest bioeconomy, tailor-made for forestry professionals, forest owners and other forestry-related stakeholders.



# Future filmmakers in the production of the VET4BioECONOMY – workshop held in Zagreb 21-22.11.2019.

During the first day of the workshop participants were learning how to use and produce in the e-learning platform-Moodle, while the second day was oriented towards multimedia production, video recording and editing in Screencast-o-matic and other tools such as H5P.

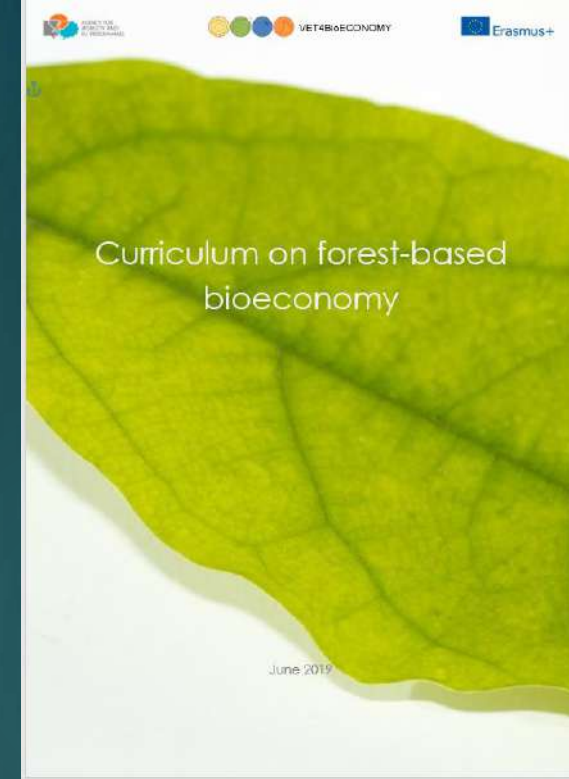




# Outputs and tasks

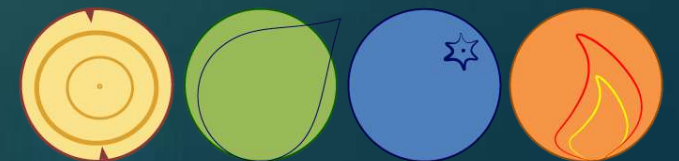
## 1<sup>st</sup> intellectual output -IO1: New curriculum for forest bioeconomy specialist/expert in four languages

Curriculum for forest bioeconomy specialist training in English with translation of the curriculum into local languages



## 2<sup>nd</sup> intellectual output –IO2: content of the e-course in forest bioeconomy in 4 languages for future forest bioeconomy specialists

Learning and teaching materials in form of texts, pictures, diagrams, etc. in four languages with development of multimedia materials and building the whole e-course on Moodle platform



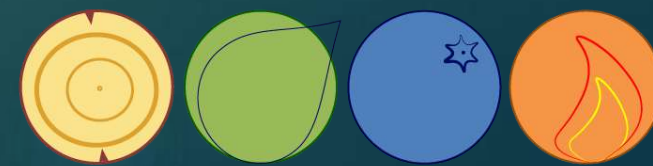
# E-course

All materials harmonized on 4 languages and placed on Moodle platform  
In addition each country places some country specific material newly developed for this project and mainly related to best practices.

The screenshot shows a Moodle course page titled "Forest based bioeconomy". The page is in Croatian and is viewed by user "Dijana Vuletic". The course is co-funded by the Erasmus+ Programme of the European Union. The main content area displays a "Welcome to the course" message from the authors, welcoming participants to the "Forest based bioeconomy" course. The message includes an introductory video and a quiz. The course structure is visible in the left sidebar, showing sections like "INTRODUCTION TO FOREST BASED BIOECONOMY" and "FOREST-BASED VALUE CHAIN". The right sidebar contains various widgets: "KORISNICI ONLINE" (1 online korisnik), "PRETRAŽI FORUME" (search), "NOVE OBAVIJESTI" (no new news), "BUDUĆA DOGAĐANJA" (no upcoming events), and "NEDAVNA AKTIVNOST" (recent activity).

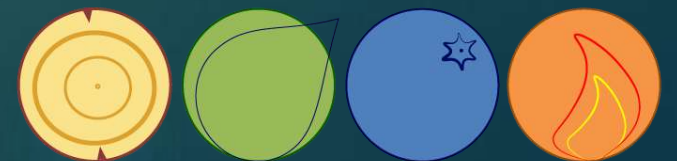
The screenshot shows the "Introduction" page of the handbook. It explains the purpose of the handbook, which is to provide guidance on using the Learning Management System (LMS), accessing e-courses, and using forums and quizzes. It also mentions that the Erasmus+ project partners created an online course "Forest based bioeconomy" and published it online for public access. The main page address is given as [e-learning.irmo.hr](https://e-learning.irmo.hr). The page also features a list of course topics and a table of contents.

Handbook explaining how to use the Moodle and follow the course also developed on all four languages as part of the e-course.



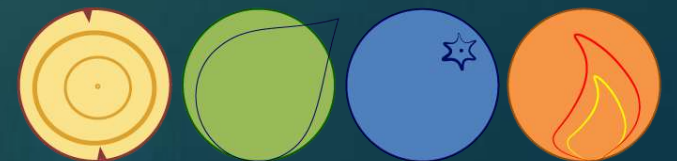
# Piloting, participants and future use

- ▶ The e-course was piloted in all partnering countries by 10 to 15 students.
- ▶ We receive only positive reflections
- ▶ Contacted teachers in some professional high schools found it very usefull as a addition to the regular program.
- ▶ Contacted professors on Faculty of forestry and wood technology University of Zagreb also found it useful and interesting to widen the knowledge for interested students, not as regular part but in form of seminar.
- ▶ Croatian Chamber of Forestry and Wood Technology Engineeres will consider to include the e-course as part of the professional training for the members.
- ▶ Croatian Associaton of Private Forest Owners also find the e-course interesting for the members.
- ▶ Austrian BFW partner will use the course in they future work in training centre.
- ▶ BOKU will use it in teaching as aditional material for interested students.
- ▶ BOKU is searching for the options to integrate it in the European master program (Erasmus Mundus European Forestry)
- ▶ Slovenia Forest Service will use e learning as a part of a standard training program for employees, especially apprentices



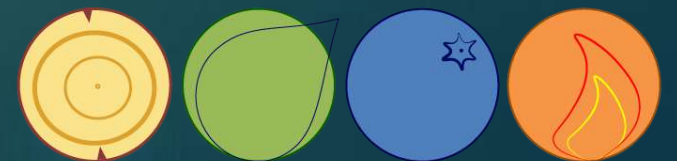
# Experiences

- ▶ The project represents innovative ways of cooperating among different partners from different countries.
- ▶ Has a good and harmonized combination of research, adult education, forest management and multimedia development.
- ▶ It is highly multidisciplinary, and it is international but still bearing strong regional characteristics concerning that partner countries are neighbours.
- ▶ Still the bio-economy and forest based bio-economy is not on the same level of development which was used as a set for knowledge transfer and exchange.
- ▶ Exchange of knowledge and training was done for the project staff in new fields like professional training, adult education, e-learning and multimedia material development and its' use.



# Experiences

- ▶ We used multimedia materials to enable fast learning with more interesting and interactive materials.
- ▶ Special role in that kind of learning have best practices examples as they show what is possible and what already exists on working examples showed by real actors.
- ▶ E-course can be taken as a whole but also in part in relation to previous knowledge and interest of the student, still offering rewards in form of badges for each finished part.
- ▶ Our project is selected as best practice in VET and professional training by H2020 project ROSEWOOD 4.0 and presented on their workshop to larger audience.
- ▶ It was continuation of previous successful cooperation, and we hope that it will not stop here.



*Thank you*

*Onbehalf of whole  
project team*

