

Intellectual Output 4

Entrepreneurship in Renewable Energy
blended-learning course.

AUTHORS:

IRENE BECCARINI, EMLV / ALDV;
ENNO MASUREL, & EDA YILMAZ, VRIJE UNIVERSITY AMSTERDAM;
ISRAEL GRIOL BARRES, POLYTECHNIC UNIVERSITY OF VALENCIA;
MONA ENELL-NILSSON, & KHURAM SHAHZAD, UNIVERSITY OF VAASA;
MAGNUS HOLMEN, LUIS IRGANG, & DEYCY SANCHEZ,
HALMSTAD UNIVERSITY

Document title	Intellectual Output 4: Entrepreneurship in Renewable Energy blended-learning course
Document file name	Intellectual Output 4: Entrepreneurship in Renewable Energy blended-learning course
Revision number	1
Issued by	University of Vaasa
Issue date	15 July 2023
Status	Validated

Nature of the deliverable

R	Report	<input checked="" type="checkbox"/>
P	Prototype	<input type="checkbox"/>
D	Demonstrator	<input type="checkbox"/>
O	Other	<input type="checkbox"/>

Dissemination Level

PU	Public	<input checked="" type="checkbox"/>
PP	Restricted to other program participants (including the Commission Services)	<input type="checkbox"/>
RE	Restricted to a group specified by the consortium (including the Commission Services)	<input type="checkbox"/>
CO	Confidential, only for members of the consortium (including the Commission Services)	<input type="checkbox"/>

Document Approval

Name	Role in the project
Mona Enell-Nilsson	Lead of PR4
Irene Beccarini	Project Coordinator

Document Review

Date	Version	Reviewers
30.06.2023	Version 1	Mona Enell-Nilsson
30.08.2023	Version 2	Irene Beccarini

Acknowledgements

This document has been produced within the EntRENEW project, funded by the European Commission through the Erasmus+ Programme, under the KA-2 Cooperation for innovation and exchange of good practices, Strategic Partnership for Higher Education within the grant agreement Nr 2020-1-FR01-KA203-080630.

EntRENEW aims at increasing specific knowledge and knowhow of European students so that they may become effective entrepreneurs and leaders, who are able to address the challenges of Europe's sustainable development and to accompany the transition of the energy sector towards decarbonization —as part of the European Green Deal. EntRENEW's objectives will be accomplished through the creation of a blended-learning course tailored to the needs of target groups operating in the field of entrepreneurship in renewable energy. The project involves six partners, coordinated by the Association Leonard De Vinci (ALDV), and it will be implemented between September 1, 2020 and August 31, 2023.

This publication only reflects the views of the authors, and the Commission cannot be held responsible for any use made of the information contained therein.

More information on the project can be found at <https://www.entrenew.eu/>

Table of Contents

Acknowledgements	0
Table of Contents	1
1. The blended learning Methodology	2
2. The EntRENEW Webinar	3
2.1. Planning and Coordination.....	3
2.2. Webinar Structure and Execution	5
2.3. Outcomes and Insights.....	7
2.3.1. Content: The basics of Energy	9
2.3.2. Content: Entrepreneurial Ecosystem.....	10
2.3.2. Content: Traditional Business Models vs Sustainable Business Models	10
2.3.3. Content: Vibrancy of an Entrepreneurial Ecosystem.....	10
2.3.4. Content: Designing a Marketing Strategy.....	10
2.3.5. Conclusions	11
3. The EntRENEW Pilot course	13
3.1. Blended learning course description.....	13
3.2. Students' feedback on pilot course.....	14
4. Small-scale tests of the training through the online-learning platform.....	16
4.1. Description.....	16
4.2. Students' feedback	16



1. The blended learning Methodology

The blended learning methodology combines in-class sessions and online teaching using digital tools. Such methodology differs from hybrid learning' since the latter combines in-class and online teaching simultaneously, such as in-class and Zoom lectures.

The contribution of blended learning is unique as most of the partner higher education institutions prefer on-campus teaching for their added educational value. Such a blended methodology also enables students from partner universities to take this course.

As part of its blended learning approach, the EntRENEW project implemented 3 different initiatives:

- 1) A webinar, to gather students' feedback on the course content, the structure, the teaching and learning methodology, the examination strategies, and other related aspects.
- 2) A pilot course at the Vrije University of Amsterdam, which lasted 8 weeks, delivered 6 ECTS, and offered valuable feedback from participants.
- 3) A small-scale testing of the training content and e-learning platform, to further improve the ERE course.

The following sections detail these initiatives.



2. The EntRENEW Webinar

To present the course EntRENEW and obtain feedback from students regarding both the content and the interface of the course, we organized a webinar to gather input on the course content, the structure, the teaching and learning methodology, the examination strategies, and other related aspects. The webinar was designed to be interactive and informative, providing students with an opportunity to gain insights into the EntRENEW course and contribute with their perspectives. The following subsections provide a comprehensive overview of the planning and execution process, including key details and outcomes.

2.1. Planning and Coordination

In February 2022, the project Consortium initiated discussions to outline the objectives and logistics of the webinar. The following aspects were addressed during the planning phase:

a) Webinar Details

The webinar was scheduled to take place on October 20, 2022, from 10:00 am to 12:00 pm. Zoom was chosen as the platform, allowing for simultaneous presentations in all five universities involved in the EntRENEW project. The webinar was named "Expanding Entrepreneurship Skills for the Renewable Energy Sector," and a promotional material was created to attract potential participants (see Figure 1).



The graphic is a promotional flyer for a webinar. At the top left is the 'EntRENEW' logo, which features a lightbulb with a green leaf inside. To its right is the text 'EntRENEW' in a green, sans-serif font. Further right is the European Union flag and the text 'Co-funded by the Erasmus+ Programme of the European Union'. On the top right, a white box with a green border contains the text 'A virtual webinar on the EntRENEW Blended-learning Course' in green. The main body of the flyer is white with green accents. It starts with 'Dear Students,' followed by an invitation to a webinar on 'Expanding Entrepreneurship Skills for the Renewable Energy Sector' on October 20, 2022, at 10:00 am CET. It describes the course as an outcome of the Erasmus+ Project EntRENEW, aimed at increasing specific knowledge and capacity for European students to become effective entrepreneurs. The webinar is for bachelor and master students with backgrounds in business administration, entrepreneurship, or engineering related to sustainability, energy, and climate change. A green button with white text says 'Please register here'. Below this, a white box with green text says 'We look forward to seeing you!' followed by a calendar icon and 'October 20, 2022' and a clock icon and '10 am - 12 pm CET'. The bottom right of the flyer has a green background with white text: 'Expanding Entrepreneurship Skills for the Renewable Energy Sector'. Below this, it says 'Co-funded by the Erasmus+ Programme of the European Union' with the EU flag, and a disclaimer: 'The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.' At the very bottom, there is a row of logos for partner institutions: EMLV, DE VINCI, HALMSTAD UNIVERSITY, Vaasan yliopisto, UNIVERSITAT POLITÈCNICA DE VALÈNCIA, VU (Vrije Universiteit Amsterdam), and EUROPROJECT.

Figure 1: Invitation to the webinar.

b) Target Audience

The target audience consisted of bachelor and master students from diverse disciplines, including Business Administration and Entrepreneurship, Engineering, Industrial Management, Environmental Sciences, and related fields. The aim was for each university partner to recruit a minimum of 10 students to participate, with a collective target of 50 students attending the webinar.

c) Recruitment Strategy

To maximize student participation, we created an invitation that was circulated to both master's and bachelor's students. Invitations were sent via email and promoted through various social media channels. The advertising campaign commenced on October 3, 2022, providing ample time for interested students to register. To ensure broad representation and active student involvement, each representative from the university partners contacted students directly from their networks. They utilized their connections and relationships to generate interest and encourage participation in the webinar. Additionally,



they reached out to the bachelor and master programs' coordinators at their universities, requesting their assistance in sharing the webinar invitation and promoting the event.

d) Application Process



To streamline student applications, we developed a Google Forms application form to facilitate the communication for issuing certificates of attendance and providing project updates. This form collected essential details such as name, university, degree program, and areas of interest. It also served as a tool to gauge the number of attendees and their diverse backgrounds. In total, 60 students registered to participate in the webinar.

2.2. Webinar Structure and Execution

The webinar was divided into three parts to ensure an engaging and informative experience for the participants.

Part I - Introduction (15 minutes)

In the opening session, the webinar commenced with an introduction to the EntRENEW project, its partner universities, and the objectives, motivations, and significance of sustainable entrepreneurship in renewable energies. A comprehensive presentation of the EntRENEW course was delivered, covering course content, learning outcomes, teaching, and learning methodology, examination strategies, and other relevant aspects. This presentation aimed to provide a comprehensive overview of the course and set the stage for subsequent discussions. The objectives of the webinar were also outlined during this session.

Part II - Parallel Sessions (70 minutes)

The second part of the webinar involved dividing the students into six breakout rooms or parallel sections, with approximately eight students in each room. To foster rich discussions, the breakout rooms were intentionally formed to include students with different affiliations, backgrounds, and interests. Each breakout room was facilitated by a representative from the project consortium, who delivered one of the course lectures and coordinated the ensuing group discussion. Table 1 illustrates the organization and moderation of the parallel sessions:

Table 1 - Organization of breakout rooms

Room N.	Moderator	Course Lecture and Content
1	Magnus Holmén	Module 1: The basics of Energy
2	Enno Masurel	Module 2: Entrepreneurial Ecosystem



3	Deycy Sanchez	Module 3: Traditional Business Models vs Sustainable Business Models
4	Khuram Shahzad	Module 2: Vibrancy of an Entrepreneurial Ecosystem
5	Israel Griol-Barres	Module 3: Designing a Marketing Strategy
6	Irène Beccarini	Module 2: Vibrancy of an Entrepreneurial Ecosystem



The activities in the breakout rooms encompassed the following:

1. Lecture

The course moderator presented the assigned lecture, providing in-depth insights into the topic and engaging the participants with interactive elements.

2. Group Discussion

After the lecture, the students engaged in a fruitful and interactive discussion guided by a set of 13 predefined questions (see Table 2). These questions aimed to delve deeper into specific aspects of the course and elicit valuable feedback from the students. The moderators utilized interactive platforms such as Google Docs and Google Jamboard to facilitate the discussions and encourage active participation from the students.


3. Students' feedback

Moderators took notes on the students' reactions, insights, and suggestions regarding the course lecture they had just participated in. This documentation played a crucial role in capturing the feedback and ensuring that all valuable insights were considered.

Table 2 - Organization of breakout rooms

	Question
Before the lecture starts	1. Name and affiliation (university / organization).
	2. Background (academic and professional).
	3. Prior knowledge in Entrepreneurship in the area of Renewable Energies.
	4. Prior experience (both academic and professional) in Entrepreneurship or Renewable Energies
After the lecture ends	5. What did you learn from this lecture?
	6. How relevant was the content presented?
	7. What else would you like to know about this topic?
	8. How friendly was the material and the vocabulary used?



	9. How friendly is the course platform?
	10. How do you perceive the quality of the material?
	11. How do you perceive the application of this lecture's content in the real world?
	12. What's your opinion about the format of the lecture? Positive points and rooms for improvement.
	13. Based on your experience with this lecture, would you apply to take this course?

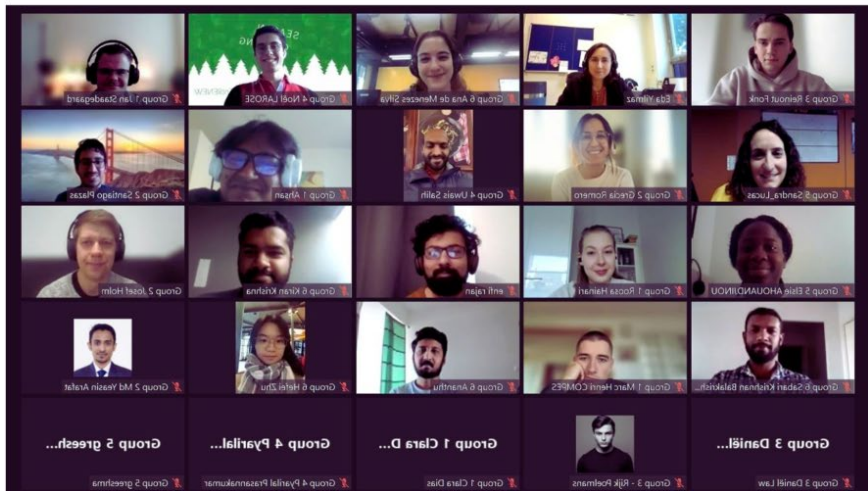
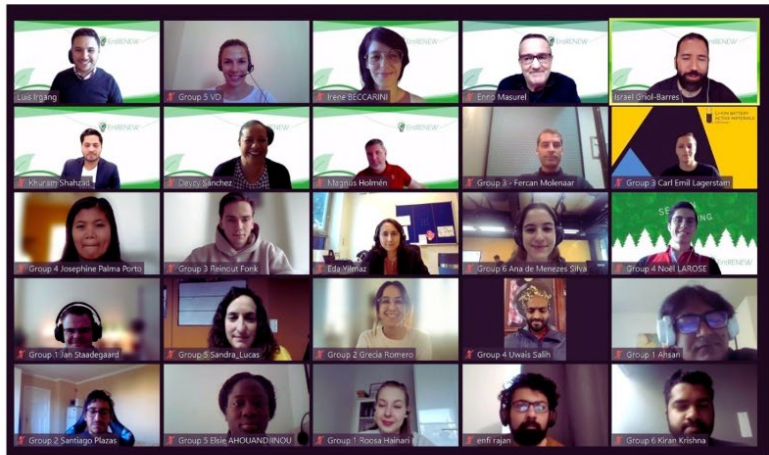
Part III - Closing (20 minutes)

The closing session of the webinar provided an opportunity to wrap up the group discussions, address additional questions and answers, and provide an overview of the next steps in the EntRENEW project. The participants were informed about future plans, including the development of an EntRENEW gamified platform, and were invited to express their interest in participating in its testing phase once the platform was ready. This concluding part aimed to ensure that participants felt engaged and informed about the project's progress beyond the webinar.

2.3. Outcomes and Insights

A total of 24 students attended the webinar, representing a diverse range of disciplines and interests (see Figure 2). Their feedback and comments provided valuable insights into the different breakout room sessions and the overall effectiveness of the webinar. The webinar participants received a certificate of attendance corresponding to 2 hours (see Figure 3).





WEBINAR
20/10/22

X X X
X X X

Figure 2: Webinar attendance





Figure 3: Certificate of participation

Detailed feedback follows.

2.3.1. Content: The basics of Energy

- Learnings: Students appreciated the discussion on energy innovations, limitations, and challenges.
- Relevance and Accessibility: The content was deemed relevant, with accessible vocabulary and materials.
- Areas for Improvement: Students expressed interest in learning more about combining different energy sources and transportation methods, as well as formulating a sound problem statement. They suggested including more cases and hypothetical utilities to enhance the learning experience.
- Additional Comments: Students appreciated the good starting point and suggested exploring the complementarity of energy systems with ecosystems. They also mentioned that the focus on wind and solar energy was expected and suggested exploring other aspects.



2.3.2. Content: Entrepreneurial Ecosystem



- Learnings: Students found the discussion on firm evolution, innovation, and the firm lifecycle to be valuable.
- Relevance and Format: The content was considered relevant, and students suggested dividing the class into small groups for better discussion.
- Areas for Further Exploration: Students expressed interest in learning about starting a business in a foreign country and how to interact and work with mentors.
- Comments: The teacher was praised for their experience and knowledge, and the material was deemed user-friendly.

2.3.2. Content: Traditional Business Models vs Sustainable Business Models

- Areas for Improvement: Students felt that the differences between traditional business models (BM) and sustainable business models (SBM) were not clear and requested more reasoning behind the answers. They suggested including more schematic examples and further developing the content to clarify certain concepts.
- Comments: Students provided feedback on technical aspects, such as the functionality of the quiz link in different browsers and appreciated the combination of testing and connecting concepts. They suggested improving the second round of testing by keeping some questions from the initial round and adding new ones. Students felt that two rounds of study were sufficient.

2.3.3. Content: Vibrancy of an Entrepreneurial Ecosystem

- Interesting Points: Students found the discussion on business incubators, accelerators, and the functioning of an entrepreneurial ecosystem to be engaging.
- Areas for Improvement: Students expressed a desire for more practical examples and mentioned that political and legal aspects affecting entrepreneurship were missed in the lecture.
- Language and Content: Students found the language and content to be easy to understand.
- Course Platform: Students found the course platform simple and easy to navigate.
- Interest in Course: Based on this lecture, students expressed their intention to apply for the course.

2.3.4. Content: Designing a Marketing Strategy

- Learnings: Students highlighted their understanding of marketing plans, business plans, validation through action, marketing funnels, and the AIDA model.



- Comments: The teacher was recognized for their expertise, and the lecture format was well-received.
- Material Level: Students found the material to be at an advanced level.
- Areas for Further Exploration: Students expressed interest in learning about how companies finance their business strategies.

2.3.5. Conclusions

The students' feedback provided valuable insights into their perceptions of the course. Overall, the majority of students found the content to be relevant, the language and material accessible, and the teachers knowledgeable. The feedback also shed light on specific areas for improvement, such as including more practical examples, clarifying certain concepts, and addressing additional aspects related to entrepreneurship, finance, and legal considerations.

These insights contributed to refining the course content, the teaching methods, and the delivery to enhance the learning experience for future participants. The invaluable feedback received from students following the webinar has played a pivotal role in enhancing our course content and planning to ensure an enriching and comprehensive learning experience.

While we considered various suggestions across the modules, the most significant adaptation was made within Module 1. In response to students' interest in a broader exploration of energy sources, we have enriched the lectures by incorporating additional content, including nuclear power, to offer a more comprehensive understanding of the subject. This adaptation aligns with our commitment to continuous improvement and reflects our dedication to creating a course that resonates with students' interests and fosters deeper learning. We sincerely appreciate the insights shared by our students and will continue to consider their perspectives to further enhance the course in meaningful ways.

As outlined in the project application, the initial intention of the webinar was to serve as a platform for recruiting students from the five universities to participate in testing the EntRENEW course. However, during the planning and coordination phase, it became evident that recruiting students to take the entire course in each university posed challenges in terms of time constraints and legal considerations. Offering the full course would require providing students with ECTS and certificates, which was not possible as the course was not officially registered in the universities.

To address this issue, all project partners agreed to utilize the webinar as a platform to serve a dual purpose: recruiting students for future piloting and providing a platform to present, discuss, and test a sample of lectures covering all course modules. This approach allowed us to gather valuable feedback and insights from the students. By incorporating interactive discussions and breakout rooms, we were able to simulate aspects of the course and engage students in meaningful conversations about course content, structure, examination methods, and teaching approaches.

The feedback received during the webinar proved instrumental in improving the course materials and overall design. Ultimately, the project partners unanimously agreed that the testing objectives



were successfully achieved through the activities included in the webinar. The insights gained from the students' feedback were instrumental in refining and enhancing the course, ensuring its effectiveness in meeting the objectives of sustainable entrepreneurship in renewable energies.

Furthermore, during the planning process, the Vrije University of Amsterdam expressed its willingness to carry out the piloting of the EntRENEW course (see Section 2). Taking this into consideration, the project Consortium collectively agreed that obtaining feedback from students during the webinar regarding the course content, structure, pedagogy, and examination methods was deemed sufficient at that stage of the project. This decision was made considering the university's commitment to piloting the course and the recognition that the webinar provided an effective platform for gathering valuable insights and suggestions from the student participants.



3. The EntRENEW Pilot course

3.1. Blended learning course description



The course in Entrepreneurship in Renewable Energy was initially implemented and tested at the Vrije University of Amsterdam (VUA), where VUA and UVA collaborated to execute blended learning for students. VUA lectures and tutorials were all in the classroom, including the pitches. In comparison, UVA representatives were present online. The collaboration within the teams was blended, both life (either on campus or elsewhere) and digital.

The pilot course was therefore held in Amsterdam in the second semester of the academic year 2022-2023 and it was offered as an elective course that students could choose for a list. 14 students joined this elective course and successfully completed it. It had a diverse population, in terms of gender, nationality and educational background. They were students from VUA and UVA MSc programs in Physics and Astronomy, Chemistry, Science, Business and Innovation, and Environmental Science.

The teaching forms in headlines:

- Tutorials (2 hours per week)
- Lectures (2 times 2 hours per week)

The course also included:

- Informal contacts, by email and on the digital learning environment Canvas
- Guest presentations, by two entrepreneurs and one business accelerator
- Pitches (with the members of the Erasmus+ project as the jury members)
- Slide decks (instead of written BMC report)
- Exam (Online Open Book)

The leading digital elements of the course were:

- The use of Canvas. This is the digital learning environment of VUA. Canvas has been used for announcements and uploading lecture PowerPoints and other learning materials.
- The online library at VUA for the books we used for the course¹.

¹ Masurel, E. (2019). The entrepreneurial dilemma in the life cycle of the small firm: How the firm and the entrepreneur change during the life cycle of the firm, or how they should change. Emerald Publishing.

Masurel, E. (2021). Transformative entrepreneurship. In B. Tjemkes and O. Mihalache (Eds.), Transformative strategies (chapter 3). Routledge.



- The use of papers in open-access journals that were freely available online.
- The examination was in the form of an Online Open Book Exam. It is online, meaning that the written exam was to be downloaded from Canvas, and the made exam was to be uploaded on Canvas. The students could take the exam at any place they liked. It is an open book, meaning that the students can use all the sources they can find without any limitations. The only thing that the students were not allowed to do was consult other people during the exam. Also, the weekly assignments had to be uploaded in Canvas.
- EntRENEW materials were delivered in the in-class sessions.
- The EntRENEW Virtual Incubator Hub: platforms and connections with incubators enable students to take their innovative ideas into the realization stage and build a community of innovators and learners in renewable energy sources.



ENTRENEW

The course accounted for 6 ECTS and lasted 8 weeks. The study results were quite average:

- Exam: 6.9/10;
- Team assignment: 7.3/10;
- Total: 7.1/10.

Detailed students' feedback follows.

3.2. Students' feedback on pilot course

Evaluation Survey Entrepreneurship In Renewable Energy Period 4 Academic Year 2022/2023	N	\bar{x}	σ	MIN	MAX	#NO OPINION
1. What is your general opinion about this course?	14	4,4	0,9	2	5	0
2. What is your opinion about the lectures / tutorials by Dr. Eda Yilmaz	14	4,2	0,7	3	5	0
3. What is your opinion about the lectures / tutorials by Prof. Enno Masurel?	14	4,3	0,9	2	5	0
4. What is your opinion about the lectures / tutorials by Dr. Prof. Marco van Gelderen?	14	3,9	1,4	1	5	0
5. What is your opinion about the guest lectures during this course in general?	14	4,4	1,1	2	5	0
6. What is your opinion about the specific guest lectures: a. Pranav Tetali (22 February)?	14	3,6	1	2	5	1
What is your opinion about the specific guest lectures: b. Jardo Stammeshaus (22 February)?	14	4,4	1,2	1	5	0
What is your opinion about the specific guest lectures: c. Peter Cirkel (1 March)?	14	3,6	0,9	2	5	2
What is your opinion about the specific guest lectures: d. Gem Kua (8 March)?	14	4,5	0,7	3	5	3
7. To what extent has this course made you more entrepreneurial?	14	2,5	0,5	2	3	0
8. To what extent has this course contributed to your knowledge about entrepreneurship?	14	2,7	0,6	1	3	0
9. To what extent has this course contributed to your enthusiasm about application of renewable energy in practice?	14	2,1	0,7	1	3	0
10. Would you recommend this course to a student who would ask for your opinion?	14	1,1	0,3	1	2	0

Note. This table presents the outcomes of the survey. Answer "no opinion" is disregarded in all questions.

^a items 1-6 are measured on a 5 point scale (very negative, rather negative, neutral, rather positive, very positive), items 7-9 are measured on a 3 point scale (not at all, somewhat, very much).



^b item 10 is measured on a 3 point scale (yes, why., no, why not., no opinion), however no opinion is disregarded.

Why yes or no? (elaboration belongs to question 10)

YES:

- Expand your horizon!
- If the student asking would like to learn more management/entrepreneurial aspects of the energy field, I believe gaining this knowledge is interesting
- Because I saw entrepreneurship as a very intimidating subject, but now I see that it is very achievable
- It's a great course especially for science people like me who want to discover the possibility of becoming an entrepreneur
- You learn things that you don't usually learn in university (soft skills)
- I actually learned some useful stuff, when comparing it to other courses. I had a lot of fun and the courses from Enno where really inspiring
- It is a very practical course where you really put into action the concepts in in class
- Workload is spread evenly, and the course motivates you
- Because it's fun to combine entrepreneurship and technical knowledge/exact science
- Interesting Self-work which makes it more relatable and interesting
- Maybe, I don't think business is for me
- This course opened my eyes to the possibilities for entrepreneurs at the VU and in Amsterdam in general

NO:

- See the above (answers in survey)

Do you have any comments about this course?

Overall, I thoroughly enjoyed this course. Would've been nice to do more practical case studies and more guidance on how to do better market analysis
Perhaps an idea is to have the pitches before the final slidedeck, as the jury is providing a lot of valuable input to some of the business ideas
Pranav Tetali (I did like the presentation, but I didn't like the assignment about his company. Felt a bit like we had to do the work for him
This winter I was thinking about quitting my masters, but I'm really glad I didn't do it and followed this course. The only bad thing is that it is over...
Not much knowledge on renewable energy and entrepreneurship theory was not very rigorous
Literary papers are complicated to have access to if you are not from VU and if you don't want to pay. It is a shame because it can discourage you from reading them
Should be nice if all the readings were uploaded on canvas, because I had not the access to all articles

Both professors are very helpful and eager to provide info and guidelines. Very interesting course
Some assignment could have been more clear, for example with rubrics, especially for the slide deck & the pitch
Great, keep going and keep the course, highly recommend



4. Small-scale tests of the training through the online-learning platform

4.1. Description

A thorough review of EntRENEW's online learning management system was performed by 10 students from the University of Vaasa. Students belong to two different educational levels, i.e., master's and doctoral level students, and their educational background varies from marketing management, international business, industrial management, energy technologies, and public management. Testing was conducted independently by the students, and they were given a free hand to evaluate different aspects of the course critically. The testing period remains from 14th July to 15th August 2023.

Students' overall experience and perception of the course remain positive and encouraging. Students appreciated the richness, multidisciplinary learning outcomes, and relevancy of the course content. They also encouraged website layout and thematic distribution of the course modules.

However, students also showed their concerns in the feedback form; a summary of the review is given below.

4.2. Students' feedback

- The course homepage is noisy in terms of having tabs and information not directly relevant for students to take the course. One of the viable suggestions is to separate project details and course platforms from the same website.
- The login and registration details are given, but they are somehow confusing. Instead of a lost password, it should be changed to reset the password.
- In the profile-making and registering for the course, recovering the password tab is named as generate password, which is confusing for students. Instead of system-generated passwords, students should be allowed to change and make their own passwords through email links.
- Students are not sure about joining groups and memberships; information on joining and moderating the groups should be provided in the course my profile section.
- The same goes for the forums in the profile section; students could not find information and topics to discuss in the forum section.
- The navigation within the course modules is a bit confusing. After marking complete module 1, the system shall move to module 2, but it remains in module 1.



- In module 1, the system plays music, which continues playing even after playing the video lecture. Music shall stop when the student progresses to the lecture.

- Also, videos shall not be loaded on YouTube; instead, they should be embedded in the website for smoother interaction and to avoid irrelevant video suggestions after watching the lecture video. Even after pausing the lecture, YouTube starts showing other irrelevant video suggestions.



ENTRENEW

- Estimated time to complete the quiz shall be given, and no attempts to take the quiz must be defined for course integrity.

- About the functionality of the Platform, it takes a considerably long time to load. This has been a significant concern for all students since the Platform takes too long to open the pages and materials. The slow speed and inaccessibility to materials made a few students uncomfortable, and they believe it will impact students' learning journey.

- It has also been noticed that the webpage failed to load slide materials on a couple of modules. There is an error Google 400 in module 3, section 1.1 Traditional Business Model VS Sustainable Business Model, and 1.2 Card game for sustainable business model. Students had concerns about the speed and accessibility of the Platform. This issue is very inconvenient for students and hinders their motivation to learn.

- Students also showed concerns about the lack of instructions on compiling assignments, their submissions, and contacting the teacher for practical information.

- It was also noted that a few PDF slides have missing pages, and the text is not aligned correctly on the slides. A few pictures were also blurry in the slides.

- Some minor issues with course visuals were also noticed, especially with the "Back to course" or "Proceed to the module" buttons, which can maybe have different colors. It isn't easy to see if that's a button or not in black.

- Moreover, students suggested enhancing the visuals and interaction quality of the course.

- Videos and course material should be uploaded on the website instead of loading from YouTube and Google Drive documents. By doing so, the issue of missing slides and the inconvenience of loading documents can be avoided.

