

# BIOBASED BATTLE

## COMPETIÇÃO INTERNACIONAL DE BIOECONOMIA

October 2025

### INTRODUCTION

The Biobased Battle is a model for educational development. During the battle, students from Dutch and Brazilian institutions work together to solve environmental issues in the industrial sector. The teams receive an assignment throughout the week and must build innovative solutions rooted in biobased economy concepts. The battle ensures that students must quickly tackle a complex issue and that they work together with students from different backgrounds. This ensures that students learn to recognize each other's field of expertise and use it to achieve valuable results at the end of the week.

The Biobased Battle is a product of Living Lab Biobased Brazil, hosted by the Universidade Federal de Juiz de Fora (UFJF), Universidade Federal de Lavras (UFLA), Universidade Federal de Ouro Preto (UFOP), Universidade Federal de São João del-Rei (UFSJ), Universidade Federal de Viçosa (UFV), and Avans University of Applied Sciences. This program is organized in cooperation with the Material and Energy Transition Centre of Expertise (MNEXT, the Netherlands).

### THE ASSIGNMENT

In 2075, EcoSanitation Innovations emerged as a visionary company committed to sustainable solutions. Back in the early 2020s, this company was founded at a pivotal moment in humanity's quest for sustainable development. At that time, waste management and sanitation sectors faced urgent pressure to adapt to the realities of climate change.

EcoSanitation Innovations emerged as a visionary force in the sector, dedicated to spearheading sustainable approaches, and is now the leader in the industry. Founded by a forward-thinking team, it swiftly gained recognition for its innovative design and material sourcing strategies. In this Biobased Battle, your goal is to explore the transformative journey of the fictional company by pitching a feasible idea (financial, technical, and social) that fueled the transition.

### YOUR CHALLENGE

In this Biobased Battle, your task is to imagine and pitch an idea. You are the CEO of EcoSanitation Innovations living in 2075. Giving an interview to a journalist, you are looking back in time: can you describe how this huge transformation took place? Answer some of the following questions:

- In 2025, which major **idea** was embraced by the company that allowed the water and sanitation sector to adapt to climate change?
- What volume of **costs** (CAPEX & OPEX) are needed to implement the idea at a commercial level? What kind of financial opportunities are possible for the idea?
- What are the **environmental** benefits (renewable fuels, emission reduction, durability increase, biodegradability) of the chosen solution in comparison with traditional and current products?

- What would the ideal relationship between **stakeholders** like Consumers, Producers, Distributors, and Government look like if there were no limitations? What social and political changes would be necessary to make this ideal scenario a reality?

## LEARNING GOALS

After having successfully followed the project, students can expect to have practiced the following:

- Students can assess different ideas within a week in such a way as to be able to select and present their best solution to the given problem.
- The students can cooperate in intercultural and interdisciplinary teams in such a way as to integrate their different points of view into the solution proposed.

## PROJECT RULES

The following rules apply to the project:

- The communication of each student group will be online, and the tutor should also be part of this group. We advise students to bring a computer for the sessions, at least one for each group/country. For sharing documents, we suggest Microsoft Teams.
- Being absent from compulsory project activities (workshops, meetings, practicals, presentations) more than once can result in the student being removed from the event.
- If, for some urgent/meaningful reason, you cannot attend a given activity, you must inform your tutor and your fellow students before the meeting.

## FINAL PITCH

Each group will make a pitch presentation of a maximum of 3 minutes to present their idea. The groups will give their pitch in front of a jury on Thursday. The jury will score the pitches and decide who has the best idea.

The pitch must contain the following topics:

- **Solution:** What is your innovative solution
- **Technology:** What is the technology/idea that underlies your concept
- **Market:** What is the market and its size
- **Value Proposition:** How you create value for one or more of the participants of the whole proposed chain
- **Feasibility:** Why is the concept technically and economically feasible

The jury will judge every pitch on the following criteria:

- **Suitability to the Challenge:** Does the team present a concept related to the challenge's principle of biobased and/or circular economy?
- **Innovation degree:** Is the concept innovative?
- **Market Potential:** Is there an identified market opportunity?
- **Environmental Impact:** What is the environmental impact generated by the solution?
- **Feasibility:** How much effort is needed for the solution's implantation?
- **Presentation:** Was the presentation strong and convincing?

The top-rated group will be the winner of the competition!

**SCHEDULE (If Brazilian daylight-saving time returns in 2025, the Brazilian time will be adjusted in 1h).**

<b>Tuesday, October 21</b>		
<b>Brazil</b>	<b>Netherlands</b>	<b>Activity</b>
09:00 - 09:30	13:00 – 13:30	Opening and explanation of the Biobased Battle ( <i>Guilherme/ Thais</i> )
09:30 – 10:00	13:30 – 14:00	Definition of the groups, checking network, meet & greet project group (including intercultural differences and group expectations)
10:00 – 10:45	14:00 – 14:45	Introduction of the assignment ( <i>Julia Mendes</i> )
10.45 – 11.00	14:45 – 15:00	Assignment (further explanation) ( <i>Thais</i> )
11:00 – 11:30	15:00 – 15:30	Discussing the assignment and brainstorming to form 20 ideas
11:30 – 12:20	15:30 – 16:20	Prioritizing ideas (from 20 to 3 ideas) & discuss selection with the tutor
12:20 – 12:30	16:20 – 16:30	Wrap-up/Closing ( <i>Guilherme / Thais</i> )

<b>Wednesday, October 21</b>		
<b>Brazil</b>	<b>Netherlands</b>	<b>Activity</b>
09:30 – 10:00	13:30 – 14:00	Kick-off + Living Lab Biobased Brazil ( <i>Guilherme / Thais</i> )
10:00 – 11:00	14:00 – 15:00	Desk research on 3 ideas (technical, financial, and marketing)
11.00 – 11.10	15:00 – 15:10	Break
11:10 – 12:00	15:10 – 16:00	Set up MCA to score 3 ideas and discuss MCA with the tutor
12:00 – 12:30	16:00 – 16:30	Score MCA and choose the best idea based on the outcome of MCA
12:30 – 12:40	16:30 – 16:40	Wrap-up/Closing ( <i>Guilherme</i> )

<b>Thursday, October 23</b>		
<b>Brazil</b>	<b>Netherlands</b>	<b>Activity</b>
09:30 – 10:00	13.30 – 14.00	Kick-off ( <i>Guilherme / Thais</i> )
10:00 – 10:10	14:00 – 14:10	How to build pitches
10:10 – 11:00	14:10 – 15:00	Detailing the best idea (technical, financial, marketing)
11.00 – 11.20	15:00 – 15:20	Break
11:20 – 12:30	15:20 – 16:30	Further detailing of best idea + start with a pitch presentation
12:30 – 12:40	16:30 – 16:40	Wrap-up/Closing ( <i>Guilherme</i> )

<b>Friday, October 24</b>		
<b>Brazil</b>	<b>Netherlands</b>	<b>Activity</b>
09:30 – 09:40	13:30 – 13:40	Kick-off ( <i>Guilherme/ Thais</i> )
09:40 – 11:00	13:40 – 15:00	Work on pitch presentation
11:00 – 11:40	15:00 – 15:40	The pitch of the groups for the jury
11.40 – 11.50	15:40 – 15:50	Short break
11:50 – 12:20	15:50 – 16:20	The Pitch of the groups for the jury continued
12:20 – 12:40	16:20 – 16:40	Break + define results
12:40 – 13:00	16:40 – 17:00	Award ceremony (and final reflection)