



Title of the PBL challenge: Wind power industry: developing sustainable marketing research in Jupiter Bach

Name of the responsible lecturer

Oliver Torres Reynoso and Silvia Fernández Martínez

University / Department / Degree program

University of León / Business Administration / Bachelor's Degree in International Trade

Course / Subject in which implemented

3rd Course / International Marketing Research

Implementation period (dates)

September 15, 2025 – December 1, 2025

Total duration (weeks/hours)

11 weeks / 24 hours

Number of students involved

66 students



All results developed under ENVIHEI are available under Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International.

Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Spanish Service for the Internationalization of Education (SEPIE). Neither the European Union nor SEPIE can be held responsible for them. [2024-1-ES01-KA220-HED-000246733]





1. Project Design

1.1 Brief description of the project and the challenge proposed

This project focuses on a renewable energy company called Jupiter Bach. This company, despite operating in a sustainable sector, has significant opportunities to improve its communication and implementation of sustainability. The main challenge addressed was updating its marketing strategy to better reflect its social and environmental value through communication actions, for example, on its website and its currently inactive social media presence.

1.2 Expected learning outcomes (academic and transversal competences)

The expected outcomes of this project include the development of soft skills such as critical thinking, teamwork, communication, and sustainability-related skills. Students from the International Trade bachelor's degree with multicultural backgrounds worked collaboratively to conduct a comprehensive market research project. This diversity enriched their perspectives, aligning well with the company's global position.

1.3 Targeted sustainability competences

Specific sustainability competencies in this project are mainly related to three aspects. The first one is about critical thinking to identify the company's real research problem and support informed managerial decision-making. Secondly, students also applied systems thinking, integrating perspectives from different cultural contexts due to the company's global scope, in order to propose solutions to its limited sustainability communication and marketing practices. Finally, applying specific frameworks to encompass sustainability, such as the UN Sustainable Development Goals (SDGs), EU Green Deal, and GreenComp.



1.4 Sustainability approach and how it is integrated into the project

The sustainability approach adopted in this project positioned students as independent market research consultants tasked with addressing the company's global challenge. The company first provided internal data, performance figures, and contextual information about its current situation. Using both primary company insights and secondary research, students developed evidence-based solutions and presented their proposals directly to company representatives in a final professional presentation.

1.5 Methodologies and tools used (PBL structure, facilitation techniques, etc.)

The project was organized into 2 hours of weekly in-class sessions, during which students attended and worked in 14 teams of 4 to 5 students (except for a group of 3) on the different components of a market research project, as seen in Figure 1.

The structure of the project was divided into six main stages, as can be seen in Figure 2. The students started with the definition of the research problem and its contextualization. Subsequently, they developed a mixed-methods approach in which they first conducted exploratory research to understand the company's situation, followed by a confirmatory study in which they developed a technical sheet and a questionnaire. Following this, due to time limitations, they created a simulation of expected results using synthetic data generated with generative artificial intelligence. Finally, they presented their results and recommendations to Jupiter Bach.

Elección	Grupo	Mostrar descripciones	Miembros / Capacidad
☐	Grupo 1 (Completo)		5 / 5
☐	Grupo 7		4 / 5
☐	Grupo 14 (Completo)		5 / 5
☐	Grupo 5 (Completo)		5 / 5
☐	Grupo 12 (Completo)		5 / 5
☐	Grupo 3 (Completo)		5 / 5
☐	Grupo 10		3 / 5
☐	Grupo 8 (Completo)		5 / 5
☐	Grupo 6		4 / 5
☐	Grupo 13		4 / 5
☐	Grupo 4 (Completo)		5 / 5
☐	Grupo 11 (Completo)		5 / 5
☐	Grupo 2 (Completo)		5 / 5
☐	Grupo 9		4 / 5

Figure 1. Group organization, showing the different groups and the number of students, with a maximum of five students per group.

Final Project

1. Jupiter Bach - Part 1: Context, research problems, and their objectives

Apertura: lunes, 22 de septiembre de 2025, 22:00 Cierre: lunes, 20 de octubre de 2025, 14:30

2. Exploratory research

Apertura: domingo, 5 de octubre de 2025, 22:00 Cierre: domingo, 26 de octubre de 2025, 23:59

3. Conclusive research: Creation of a Questionnaire

Apertura: domingo, 2 de noviembre de 2025, 22:00 Cierre: lunes, 24 de noviembre de 2025, 10:30

4. Conclusive research: Technical sheet

Apertura: lunes, 24 de noviembre de 2025, 08:30 Cierre: lunes, 1 de diciembre de 2025, 10:30

5. Part 5: Expected results of the conclusive research

Apertura: lunes, 24 de noviembre de 2025, 10:00 Cierre: lunes, 1 de diciembre de 2025, 10:30

6. FP Part 6 Presentation

Cierre: lunes, 1 de diciembre de 2025, 00:00

Figure 2. Marketing research steps.



The PBL approach included assigning roles within the groups, with at least one project manager, one writer, and one presenter. Roles can be repeated and must be specified on the presentation slide of each part. The project manager was responsible for managing the project in terms of time and linking the brainstorming sessions. The writer was responsible for completing the requested content on the slides. Finally, the presenter was responsible for communicating with the teacher and presenting during the presentation sessions.

1.6 Organization of the project (group formation, timeline, milestones)

The project was conducted over several two-hour sessions from September 15 to December 1. Each session began with the lesson, after which students worked on their projects. If they were unable to complete certain tasks during class time, they were given an additional period – typically one week or more, depending on the content covered – to finish and upload their work via the subject's Virtual Campus (Moodle).

Groups were formed during the first two weeks, during which a 3.5-hour workshop on communication styles was delivered. In this workshop, students were classified according to two dimensions: whether they were more extroverted or introverted, and whether they tended toward rational or emotional thinking. Based on these criteria, four main categories were established: extrovert–rational, extrovert–emotional, introvert–rational, and introvert–emotional. Using these classifications, teachers created groups composed of students with different communication style, following an experimental activity in which students worked both with peers of the same style and with different styles during a subsequent workshop session in the same week.

The following week, the teachers published a provisional group list and reviewed it with the students to address specific situations and finalize the group composition.

1.7 Deliverables requested from students (type, format, deadlines)

The requested documents were PowerPoint slides. Instructions outlined the structure of the work, guiding students on what to include in each section. This also impacted the maximum number of slides they can use. Slides were always submitted via the subject's Virtual Campus (Moodle).

There were two presentation sections: the first took place during Part 1 of the project to determine each group's research objectives; and the final presentation, in Part 6, was delivered to the company Jupiter Bach to present the expected results and recommendations. The deadline was usually one week to submit each part, but it was extended when needed.

Part 2 was completed and implemented in the classroom through exploratory research, during which students gathered information by interviewing Jupiter Bach's staff. Although photographic evidence is available, there is no written output produced by the students.

1.8 External collaborators involved (mentors, companies, experts...) and their role

The two teachers involved in the subject serve as mentors, offering technical guidance and support throughout the research process. Although the primary responsible lecturer was Oliver Torres Reynoso, with 4 ECT credits out of the 6 ECT credits for the subject, Silvia Fernández Martínez collaborated with 2 ECT credits. External collaborators consisted of four individuals from the Jupiter Bach

León's office who were interviewed by the students and evaluated the students' final presentations.

2. Project Evaluation

2.1 Assessment criteria and methods used

Students' learning was continuously monitored through formative assessment across each stage of the project. For every practical component, students received a numerical grade on a scale from 0 to 10 (where 0 indicated very poor performance and 10 indicated excellent performance), accompanied by individualized qualitative feedback. This feedback systematically included both areas for improvement and positive reinforcement, highlighting particularly strong aspects when relevant. The evaluation process was applied to each of the project phases, allowing students to progressively refine their work. Importantly, after receiving feedback, students were given dedicated time to implement suggested improvements in their presentations and subsequent project deliverables, ensuring that learning gains were reflected in later stages.

The evaluation relied on detailed rubrics that outlined the requirements for each of the 6 Parts. The requirements were explained in the classroom before starting to work on each part. The rubric assessed three main aspects: the relevance of the content in terms of sustainability, both for implementation within the company and from an environmental perspective; creativity; and presentation. These aspects were evaluated jointly by the four members of Jupiter Bach and the two lecturers.

The final project was worth 30% of the total subject mark and was calculated from the numerical inputs from the parts evaluated.



2.2 Evidence of student learning (examples, outputs, results)

In the final presentation, students were also required to complete a creative component. Instead of presenting their project to the company using a traditional slide-based format, each group designed and produced a handmade visual artifact to explain their project. This task was evaluated according to originality, clarity of presentation, and content quality.

3. Reflections and Recommendations

3.1 Main achievements and strengths of the project

One of the main achievements of this project was successfully connecting students with a real company case aimed at strengthening its sustainability practices, despite already operating in the sustainability sector. Experiencing this process first-hand provided students with invaluable learning opportunities, allowing them to understand how sustainability challenges are addressed in real professional contexts rather than only in theoretical scenarios.

Moreover, the collaboration proved to be mutually beneficial. The professionals who accompanied us throughout the project explicitly stated that they also learned a great deal from the students' perspectives, ideas, and proposed solutions. This exchange created a meaningful two-way learning environment, reinforcing the value of cooperation between academia and industry.

3.2 Challenges faced and how they were addressed

One of the main challenges was shifting students' mindsets towards effective teamwork. Although they were already familiar with PBL methodologies, they needed support to fully understand their roles, expected outputs, and how to collaborate efficiently within a professional context. Once the structure and



expectations were clarified, students felt more confident about the process and their individual contributions.

Another challenge was the limited prior knowledge students had regarding applied sustainability concepts. To address this gap, we provided targeted instruction on both the methodological framework and key sustainability approaches (e.g., UN Sustainable Development Goals (SDGs), EU Green Deal, and GreenComp).

In addition, the development of soft skills was essential. Particular emphasis was placed on communication styles, which were addressed through a dedicated workshop. This training helped students interact more effectively with peers, instructors, and company professionals.

3.3 Lessons learned for future implementations

As this was the first year implementing this type of project and methodology, future editions will benefit from the experience gained. The teachers are now better prepared to anticipate potential difficulties students may encounter and to address them proactively.

Greater emphasis will also be placed on helping students feel comfortable with this working approach as early as possible in the semester. Additionally, more in-class presentations will be incorporated to ensure that feedback is not limited to written qualitative comments provided after grading, as happened with some parts of the project.





4. Supporting Material

4.1 Lecturers' materials and project documentation

Lecturers' materials and project documentation are available in the following link:

https://drive.google.com/drive/folders/1027t_8EDiXFE9WEvBi20QYMdjZrwz2t1?usp=drive_link

4.2 Deliverables produced by students, final presentations or pitch materials

Some examples of deliverables produced by students are available in the following link:

https://drive.google.com/drive/folders/13toHfM15mG3buNANtVM_aJBzNUDgQ0h4?usp=drive_link

Students' final presentations, created as creative artwork in groups, are available in the following link:

https://drive.google.com/drive/folders/1RGX70-WAw2CD0i7h5l2_uLDc_W3daLoz?usp=drive_link

4.3 Images/videos (with consent)

Photographic and video records were captured with the explicit consent of the participating students, and are available in the following link:

https://drive.google.com/drive/folders/1rjgHvd8DmwQPH1lSAXVFqZvrwyTznuCm?usp=drive_link

4.4 Any other relevant material

All the materials, including this report, are available in the following link:



https://drive.google.com/drive/folders/1vvpZ0kHPK8kWW8zPn2rEz_y1XuqbltAs?usp=drive_link

