

# Case Studies in Bioeconomy Education, Training and Skills Development

Case study sample: Circular Centre  
Quiz – Jogo Centro Circular

Central Region of  
Portugal

LOBA





# Circular Centre Quiz – Jogo Centro Circular

## 1 Abstract

The Centre Region Coordination and Regional Development Commission (CCDRC) launched the Circular Centre Quiz, an online game to promote knowledge about the circular economy, which is aimed at the school community of the Centre Region of Portugal.

This initiative uses gamification as a method to develop environmental, circular and sustainable education contents for students from the 5th to the 9th year of school (2<sup>nd</sup> and 3<sup>rd</sup> cycles) and for their teachers. The game aims to promote environmental, circular and sustainable education in the school community.

## 2 Target Groups

Students and teachers from the 5th to the 9th year of school at any school in the Centre Region of Portugal, family and friends of the students, students from other years or other interested individuals

## 3 Case Study Category

Art to communicate messages, inspire people and raise interest and awareness

## 4 Training Provider

The Centre Region Coordination and Regional Development Commission (CCDRC) provides the game, and teachers implement it in the classrooms.

## 5 Region

Central Region of Portugal

## 6 Language

Portuguese

## 7 Objectives of the Educational Format

Other – the objective of this education format is to raise interest in the topics in the younger generation and provide awareness of the bioeconomy by making it more interesting for them to learn and possibly choose future jobs on the bioeconomy sector

## 8 Final Objective of the Educational Format

To raise awareness of the bioeconomy among students from the 5th to 9th year of school in Portuguese schools from the central region of the country

## 9 Scope and Context of the Educational Format

The Circular Centre Quiz aims to promote environmental, circular and sustainable education in schools.

It is an online board game that tests players' knowledge in five areas: water efficiency, energy efficiency, material efficiency, design and production, and acquisition and consumption. The game aims to be appealing and can be used in a classroom context or remotely. The players are students from the 5th to 9th year of school or teachers. It is a game and competition, and at the end, the players with better scores win a prize (there is a prize for students and teachers who achieve the top scores).

## 10 Specific Skills and Competencies Addressed

Transversal competencies

Competences in water efficiency, energy efficiency, material efficiency, design and production, and acquisition and consumption

## 11 European Qualification Framework level(s)

Level 1 and Level 2

## 12 Main Benefit to the Participants

Certificate of participation and prize

## 13 Main Cost Categories Considered

Investment in creating the game platform and updating it for each edition; teachers/educational personnel from the CCDRC report hours in research for the game questions and implementation of the game in the classrooms, etc.

## 14 Importance and Impact

Educational games can have a significant impact on children's understanding of the bioeconomy. This educational game makes learning about the bioeconomy fun for students, it fosters critical thinking skills and problem-solving skills, and it encourages collaboration and teamwork. This game has been used by 2855 students, 128 teachers and 97 schools in the central region of Portugal.

## 15 Relevance (of the Format)

The format is highly relevant because it targets potential future bioeconomy students, as the target group of this game is the younger generation that in the near future will have to choose an area of study and profession.

This game is a way to raise awareness of the bioeconomy sector from a young age.

## 16 How can it Inspire BioGov.net? (Why was it designed in this specific way / what are the success factors?)

This is the only initiative that uses gamification to teach the bioeconomy in the central region of Portugal.

In principle, all academic institutions can replicate this game as a tool to teach bioeconomy education at all educational levels from a young age (pre-school) to middle school and older educational levels, such as college and VET. In the short run and in the context of BioGov.net, the potential for replication will be limited owing to the complexity of creating a platform that can support the gamification strategy for all educational levels.

## 17 Data Sources

- **Online resources:** <https://agendacircular.ccdrc.pt/jogo-centro-circular/>  
<https://www.centrocircular.pt/pt/regras> <https://www.centrocircular.pt/>
- **Resource persons:** -
- **Other sources, if any:** -

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## Consortium

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