



# Business Model for a Circular Economy based on Portuguese Offshore energy cluster

Ana Cristina Pego, Phd

## Abstract

"The circular economy provides a framework for facing challenges and a guide for rethinking and redesigning the future" ( Pego, 2020:24)

Renewable energies have gained in importance in recent years due to their cooperation in the areas of ecosystems, welfare and recycling. Renewable energy is one of the vectors of the circular economy and is considered a fundamental peace for new economic challenges. In light of these assumptions, the author concluded that offshore energy creates externalities in the economy, promotes ecosystems and business development. The Offshore Energy Cluster helps to understand the energy sector in Portugal and its contribution to a business strategy for competitiveness and cooperation based on the circular economy.

## Objectives

Demonstrating the business model for a circular economy based on the offshore energy cluster

## Methods

The qualitative analysis was based on an electronic questionnaire. It tested opinions on the future of offshore energy in Portugal and how future organizations are involved. The questionnaire was sent to suppliers, government agencies and others who can positively influence the energy potential in Portugal. A total of 14 organizations were surveyed, divided into private organizations (60%), universities (13%), research centers, public organizations, the government and NGOs (7%). The methodology used allowed to understand the future of this economic sector and its linkages to circular economy.

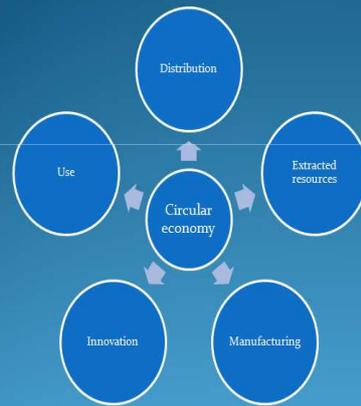
## Conclusion

The offshore energy sector includes a new business model based on clean technology and welfare, reflecting a new production model based on demand. This business model will contribute to positive benefits in the sector, linked to the use of expertise, collaborative networks, teamwork and project management, leading to the widespread use of recycling projects. The offshore energy sector will make an important contribution to a business model in which innovation ecosystems, network planning, smart cities, public and private partnerships, green production and circularity are the main vectors.

## Further Research

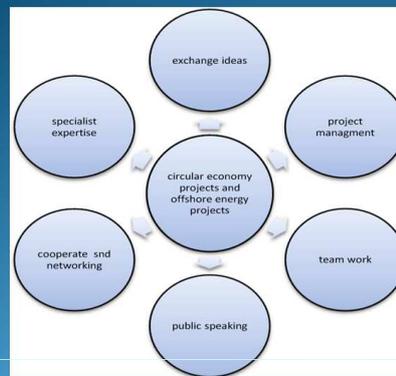
This study confirmed a positive relationship between the circular economy and the offshore energy sector. The study can be compared to other sectors which belongs to the circular economy.

## The Principles



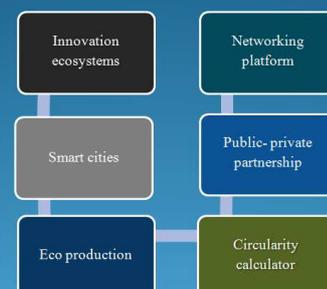
New business methodology based on industry performance related to the capacity of creating new jobs, new investments, natural resources, the re-use of goods and materials

## Results



The business model and the Portuguese circular offshore cluster

## Business vectors for Offshore energy sector in Portugal



## References

- 1- Pego, A. (2018). The Pentagonal Problem and the Offshore Energy Sector in Portugal: Why Does it Matter?. In *Entrepreneurship and the Industry Life Cycle* (pp. 313-328). Springer, Cham.
- 2- Pego, A. (2019) (b). O Cluster das Energias na Região Norte: uma abordagem em Geografia Económica. Doctoral Thesis. Lisbon: Nova University
- 3- Pego, A. C. (2020). Circularity in Portugal: Features of New Business Challenges. In *Networked Business Models in the Circular Economy* (pp. 224-240). IGI Global.