

Opportunities for Economic Revitalization Through Inter-Industrial Relationships: The Case of Blue Economy



Cristina Sousa¹, Margarida Fontes² and Oscarina Conceição^{1,3}

¹Instituto Universitário de Lisboa (ISCTE-IUL), Portugal

²LNEG - Laboratório Nacional de Energia e Geologia, Lisbon, Portugal

³IPCA, Barcelos, Portugal

cristina.sousa@iscte-iul.pt

margarida.fontes@lneg.pt

oonceicao@ipca.pt

DOI: 10.34190/EIE.21.120

Abstract: This paper proposes that collaborative relationships in the context of research and innovation projects can be a first step towards the development of new products or adaptation to new markets that may drive diversification processes in established/mature sectors; and that technology-based firms can play a key role in these processes, as intermediaries and co-innovators. It addresses the case of projects in the field of “blue economy”, which aims at combining socio-economic development and sustainability in the conduction of human activities related with the ocean. Transformative activities in this field are especially important, given the weight of ocean-related traditional sectors in the economic activity of several European countries. The paper maps the interactions between new and established Portuguese industries, to investigate whether and to extent inter-sectoral relationships are leading to the development of innovative and sustainable solutions, as well as which sectors have a more determinant role. Then it looks for evidence of revitalization and transformation processes being induced by collaboration with firms from new industries. Implications for transformative innovation policies are derived.

Keywords: industrial transformation, diversification, blue economy, inter-industrial relationship, research & innovation projects, social network analysis

1. Introduction

The “Blue Economy” is considered one of the drivers of European growth, based on the development of new competences and activities that enable a sustainable exploitation of ocean resources (EC, 2012). Strategies and policies were formulated, both at the UE and national levels, to address “Blue growth”, combining industrial growth objectives with sustainability concerns. These strategies have targeted a broad variety of actors engaged in ocean-related activities, namely companies from established and new industries, and have promoted the development of new transversal technologies through the support of research and innovation.

These new, transversal technologies – such as advanced materials, biotechnology, ICTs, robotics - have the potential to drive changes in established industries, contributing to their transformation and economic revitalization. However, the ways these processes take place are still underexplored. The paper addresses this gap by proposing that such revitalization can be achieved through the promotion of inter-industrial relationships between established and new industries and the adoption, by companies from the established sectors, of diversification strategies based on the exploitation of the opportunities opened by the collaborations established.

The paper conducts an empirical analysis of the role played by research and innovation projects in the creation of conditions for a fruitful interaction between previously unrelated activities in the field of Blue Economy, conducive to change in mature industries. Transformative activities in this field are especially important, given the weight of ocean-related traditional sectors in the economic activity of several European countries, and the need to revitalize their activities, particularly in the context of a post-pandemic recovery.

2. Literature review

The concept of Blue Economy emerged as result of the growing interest in the development of a set of sectors directly or indirectly related to the ocean that have a strong weight in the economy of several countries, combined with concerns about the effects of these activities upon the integrity and sustainability of ocean ecosystems (Howard, 2018; Voyer et al, 2018). This dual approach was translated in strategies and policies at the European and country level, namely research and innovation policies aiming at the revitalization of