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ABSTRACTS

Regional Innovation Ecosystems and Sustainable Development

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PATH DISTURBING IN THE PROCESS OF PATH DEVELOPMENT: THE CASE OF (ONSHORE & FLOATING OFFSHORE) WIND ENERGY IN PORTUGAL.

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Abstract

Purpose | The paper addresses the "disturbing" effects that new generations of technology can introduce in the early trajectory of a regional industrial path built around wind offshore technology, focusing on the dimensions along which such disturbance occurs and the actors' responses to them.

We look at the case of the industry formed around wind energy technology. The first generation – onshore wind - drove the development of new industrial paths in some regions. The introduction of new generations (fixed & floating offshore wind) that increasingly diverge from the onshore technology, leading to significant changes in the industry concerned with their production and deployment (Van Der Loos et al., 2020).

It is argued that the emergence of the new technology generations potentially produced disturbance along several dimensions (Gong & Binz, 2023) that could affect the industrial and institutional configuration of the wind energy path. The industrial development required, not only innovation activity in the existing manufacturing industry, but also the involvement of a new set of industries. The location at sea made proximity to the natural resource more pertinent, required new infrastructures, demanded regulatory changes and raised new acceptance issues (MacKinnon et al., 2019). Thus path-disturbance would occur at different assets level and actors' agency.

The paper empirically analyses the case of Portugal, which developed an onshore wind energy (Bento & Fontes, 2015) and has engaged early in the experimentation with the new generation of floating offshore wind (Castro-Santos et al., 2020).

Methodology/Approach | The empirical analysis combines secondary data - on the structure of the onshore industry and on the experimental activities aiming at the early development of floating offshore wind - and interviews with a diverse range of actors (from the existing path; key actors that were early drivers; newcomers from other industries / areas of activity; policy makers at different governance levels; etc).Using secondary data, we map and compare the onshore industry core structure and the emerging configuration that results from floating experimental activities. Based on the interviews, we go in greater depth into the processes underway.

Expected Results | The analysis enables us to assess actor overlaps, as well as the extent and type of new actor entry. It also reveals the attitude of actors towards the potential for disturbance and their motivations and action to generate opportunities emerging from the disturbance. This research provides insights into the dimensions on which the

involvement (or the willingness to get involved) with the new technology generation is inducing disturbances, and into actors' agency in these processes.

Keywords | Path disturbing, path development, wind energy.

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