

## Abstract 31

### REGIONAL INNOVATION POLICIES IN MALOPOLSKA, POLAND: SMARTLY INTEGRATING EXPLOITATION AND EXPLORATION

Academic paper

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Abstract text:

- Purpose:

The paper aims to present the evolution of regional innovation policies and innovation system towards smart specialization (SS), based on the case study of the Malopolska region in southern Poland. Malopolska has a long tradition of mature and heavy industries, however, within recent decade, new knowledge-based activities have emerged, opening the way to industrial transformation consistent with the concept of SS.

- Originality and value:

This study contributes to the growing research on the design and implementation of smart specialization strategies (Aranguren et al., 2019; Varga et al., 2018; Estensoro & Larrea, 2016). The majority of extant research focuses on the recent period of 3S implementation based on the EU operational programs. We present the development of Malopolska smart specialization strategies in the broader context of the region's industrial specialization development 2005-2020 (Gong & Hassink, 2019). This enables an evaluation of regional innovation system and policies according to their ability to concurrently pursue exploitation of extant industrial base and exploration of new prospective business activities (Foray, 2014, 2017; McCann & Ortega-Argilés, 2016; Grillitsch, 2019).

The study explains how regional innovation policies have upgraded over the referred period towards SS, and points to drivers and barriers in this process. The theoretical contribution consists in adopting the exploitation and exploration concepts to explain a regional development towards sustainable specialization (Foray, 2014, 2017; McCann & Ortega-Argilés, 2016). Moreover, we contribute to the literature on industrial transformation, addressing the research gap of how the transformation is accomplished and particularly, how innovation policies can contribute to SS-based industrial transformation (Oinas, Trippl, and Höyssä, 2018; Hassink, Isaksen, and Trippl, 2019; Asheim, 2019). The practical contribution rests on revealing regional-level mechanisms of innovation policy development from the perspective of the country that accessed the EU in 2004. The case study shows how the regional government of Malopolska manages typical shortages of Polish regional policies, such as lack of focus or excessive focus in the objectives and target industries, as well as imbalance between extant capacities and the development of new prospective industries.

- Design and methodology

The paper adopts a theoretical framework of regional innovation policies with a focus on smart specializations, regional innovation systems approach, as well as the concepts of exploitation and exploration in developing regional industrial specialization (González-López, 2019; Hassink, Isaksen, and Trippl, 2019; Asheim, 2019; Foray, 2014, 2017; McCann & Ortega-Argilés, 2016). Our conceptual background follows the proposition that regional innovation policies focused on 3S should promote specialized diversification based on the exploitation of region-specific capacities and exploration of region-specific entrepreneurial opportunities to enable sustainable growth (Foray,

2014, 2017). The dominant exploitative approach might lead to path dependence, rigid specialization and related lock-in (Martin & Sunley, 2006; Hassink, 2005; Martin, 2010). Therefore, explorative approach in regional innovation policies is needed to launch new directions and entrepreneurial opportunities, i.e., to overcome path dependence and lock-in and to make a regional specialization smart (Isaksen, Jacobsen, & Normann, 2019; Hassink, Isaksen, & Trippl, 2019; Foray, 2014, 2017).

We develop theory driven, exploratory study case that uses qualitative and quantitative data (Yin, 2018). The study analyzes the formulation and, partially, implementation of Malopolska innovation policies, as well as the Malopolska regional innovation system in the years 2005-2020.

The major research methods included the analysis of secondary sources, such as policy documents, evaluation reports, and public statistics, as well as 28 direct and semi-structured interviews with policy-related agents (regional government decision makers, representatives of business support organizations) conducted over 2007-2020.

#### • Results and findings

Our results point to the evolution of the Malopolska innovation system and policy towards smart specialization that integrates exploitation and exploration in industrial development. We found the evolution in the area of developing the region's specialisation, from a broad approach emphasising a horizontal development of the region (2005-2013), to an active industrial policy in search of the new development path (2014-2020). The latter phase has been additionally featured by the transition from an expert approach focused on limited areas of new advanced technologies, to a more context-oriented approach that combines the dominant industrial base and areas prospective for new path creation.

The revealed drivers of and conditions for the integration of exploitation and exploration in regional policies include i) multi-stage and inclusive process of RIS formulation, evaluation, and adjustments, involving multiple actors to avoid the bias from one stakeholder group; ii) formalized and iterative analyses and evaluations (diagnostic research – surveys, interviews, desk-research, evaluation research obligatory in Polish law since 2000); iii) direct interactions and consultations with the EU management of support programs. The identified barriers to exploitation and exploration in innovation policy directions are i) risk-averse approach toward output-related objectives, measures, and evaluation criteria due to strict, legal demands of evaluation programs; predominant input-related approach; the bargaining power of incumbent stakeholders in the process of setting up priorities and the implementation agenda prevents new opportunities and development paths in the final resource allocation; excessive inward focus with limited recognition for country-level and global value chain linkages of economies and industries.

#### • Limitations and implications

Our study focuses predominantly on the evolution of the Malopolska policies, in terms of objectives, measures, and budgets. The policy development has been presented in the context of the region's industrial change, however, more in-depth analysis of industrial evolution would be needed to understand the policy development (Murmman, 2013; MacKinnon et al. 2009; Martin & Sunley, 2006, 2015). Particularly, reciprocal influences between policy and industry should be explored to thoroughly understand the conditions and causes of regional innovation policies' change and its interrelations with regional industrial transformation (Gong & Hassink, 2019).

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