

# Chapter 9

## Smart Specialization and R&I Policy Framework in Turkey

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### ABSTRACT

*The smart specialization strategy (S3) has been accepted as a solution for the European Union (EU) to catch up United States in productivity, R&D intensity, etc. The process of research and innovation strategies for smart specialization (RIS3) is described in six steps: the regional/national context, governance, elaboration, identification of priorities, the definition of coherent policy mix and action plan, and finally, the integration of monitoring and evaluation mechanism. In this chapter, the situation in Turkey is evaluated under these six steps. RIS3 strategy is not specified on the national level at Turkey, while it is debatable on the regional level.*

### INTRODUCTION

This chapter attempts to analyse the regional innovation strategies of Turkish regions in the context of smart specialisation policies. OECD treats smart specialisation as an industrial and innovation framework for regional economies targeting to demonstrate how public policies, framework conditions, but especially R&D and innovation investment policies can influence economic, scientific and technological specialisation of a region and, thus, its productivity, competitiveness and economic

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growth path (OECD, 2012). Moreover, it becomes a significant element of EU Cohesion policy for the programming period 2014-2020. The most important attempt for reaching the targets of this policy is the publication of “Guide to Research and Innovation Strategies for Smart Specialisation (RIS3) (Foray et al., 2012)” as a methodological guide for policy maker and implementing agencies. Through the efforts aimed at EU *acquis* harmonization in the field of regional strategies, the concept becomes popular in the agenda of Turkish regions.

For a long time, regions are treated as one of the significant economic unit to analyse technological change. The concept of RIS originated from discussions on national systems of innovation literature. Cooke et al. (1998) defines an RIS as a system “in which firms and other organizations are systematically engaged in interactive learning through an institutional milieu characterized by embeddedness”. On the other hand, Asheim and Isaksen (1997) add that “an (regional) innovation system consists of a production structure (techno-economic structures) and an institutional infrastructure (political-institutional structures)”. The precise distinction between an NIS and an RIS is difficult to ascertain. In fact, distinctions are not always made; some authors categorize these ideas as different concepts whereas others see regional systems as a subset of a national system. Three aspects of Cooke’s definition require more explanation. First, the expression “interactive learning” corresponds to the interactive processes by which knowledge is combined and made a collective asset of different actors within the productive system. Second, the term “milieu” is regarded as an open territorialized complex, which involves rules, standards, values, and human and material resources. Third, the term “embeddedness” includes all of the economic and knowledge processes created and reproduced inside and outside firms. Such processes are generally created and reproduced through a certain form of social interaction and can take on different forms, making them difficult to duplicate. While Cooke’s definition provides a general picture of what an RIS actually is, it does not merely emphasize the main components and dynamics that comprise an RIS. The concept of RIS evolves from the premise that innovation is a process that relies on a variety of factors that are internal and external to firms. Reproduction of an RIS depends not only on the stock of knowledge created by firms and institutions but also on the way these organizations interact with each other and their environment. Hence, innovation cannot be produced in isolation by relying exclusively on internal resources within the firm. The environment may either be seen as a network of actors, a general framework for firm action (milieu or cluster), or a reservoir that can be translated into agglomeration economies for firms engaged in interactive learning. Thereby, the interaction between learning organizations, which can be specified in

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