Chapter 2
Innovations for Sustainability: The Distinct Role of Grassroots Innovations

ABSTRACT

This chapter introduces innovation as the key element to promote sustainability from the bottom. In doing so, the chapter aims to find if there is just one possible ways to contribute in innovative terms to the path towards sustainability or if there should be different ways and strategies. Starting from the necessary relationship between sustainability and innovation, the chapter presents different typologies of innovation to focus finally on that special kind of innovation that generates at the bottom level of society in local areas defined as niches in the Transition Studies literature. This is the case of grassroots innovation. The chapter presents its main characteristics in order to distinguish it from sustainable innovations, defined in both theoretical and managerial terms, and social innovations.

INTRODUCTION

The object of analysis of the transformation of socio-technical regimes towards sustainability requires an understanding of the role of innovation in niches, and especially the role of grassroots innovations. The normative dimension of sustainability implies a definition of innovation for sustainability or sustainable innovation. As we will see, there are two paths to define sustainable

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innovation one from the research fields and one from the business world (ISO, certification schemes *et similia*). Both the perspective are essential to position grassroots innovation in the area of sustainable innovation as a special form of social innovation. In the following paragraphs, we will first introduce the two approaches for sustainable innovation (theoretical and managerial), then definition and characteristics of social innovation as a specific form of the previous. Finally, the concept of grassroots innovation, as a special kind of sustainable and social innovation, will be introduced. Its characteristics and operational framework will then be referred to as the general framework for the analysis of the sport grassroots initiatives presented in the second part of the book.

SUSTAINABLE INNOVATION

The Theoretical Approach

Sustainable innovations (e.g. solar panels) develop in niches within the market economy and then emerge in the market after a period of public support (tax breaks and subsidies) that should overcame the higher costs and barriers associated to innovative niche solutions. Once in the market, the innovative solution will follow the traditional path of development according to the mainstream economic and business literature. This reflects the institutional form of conventional innovation. Being in a niche market for even sustainable innovations (e.g. green technologies) does not avoid to be managed at the micro (firm) and macro levels (innovation policies) as a conventional innovative product that responds to traditional market mechanisms and that it is driven by profit and financial returns (Seyfang and Smith, 2007). This perspective relegates sustainable innovation to micro niches where special technological innovations develop through the typical innovation cycle for the ultimate scope of resolving environmental issues, much less for social problems. The only difference is the scope of that innovation, scope that should depend on many reasons, such as the vision, strategy, knowledge, processes, technique, and technological development of the innovative organization.

In literature, responsible or sustainable innovation has been differently defined and studied. Boons and Lüdeke-Freund (2013b) recognize the complication for a systematic review of the literature on sustainable innovations on one side because of a lack of conceptual consensus that derives from the

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