



offshore wind, significant technological barriers that need to be overcome in order to increase reliability and bring down the costs and additional infrastructures that need to be put in place to connect the offshore wind parks to onshore electricity grids. To overcome these technological bottlenecks and to live up to the technological potential, a well functioning innovation system is necessary. The purpose of this paper is to analyse the current state of the European Technological Innovation System (TIS) for offshore wind power and specify current and anticipated system weaknesses, weaknesses that may guide policy intervention and business strategy. Tentatively, the processes ‘influence on the direction of search’, ‘entrepreneurial experimentation’ and knowledge development and diffusion’ are well advanced; there are powerful factors directing firms’ attention to the system, many actors are entering along the whole value chain conducting numerous experiments with different designs, and many universities/research institutes are working with development/diffusion of new knowledge. However, several barriers remain and must be overcome in order to realize the potential of offshore wind power. These system weaknesses are primarily related to three relatively weak functions; legitimization, market formation and resource mobilization where the latter includes not only access to specialized competences but also financial capital and grid infrastructure. Policy intervention must be guided towards removing the system weaknesses that make these processes weak. The paper identifies these weaknesses and discusses the associated policy and strategy challenges.

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#279 Comparing the European and US nutraceuticals innovation system - Ellen Moors, Jef Pennings

In its health strategy to overcome the grand societal challenge of obesity, the European Union (EU) is committed to promote healthy lifestyles by stimulating healthy food choices (EU 2011). Accordingly, during the last decades the role of dietary active components in human nutrition has become an important focus of research. It has increased the awareness of consumers about diet and proper nutrition. An important product innovation emerging from this focus on dietary active components in human nutrition and food are so-called ‘nutraceuticals’. Nutraceuticals are defined as “any substance that may be considered a food or part of a food and provides medical or health benefits, including the prevention and treatment of disease” (DeFelice, 1994;1). Several studies showed that European food and life sciences firms encounter several problems due to regulations that might hamper market access of nutraceuticals. Other studies focused on consumer acceptance as a possible explanation of the low diffusion of nutraceuticals in the EU. Accordingly, this paper focuses on the weaknesses in the emerging nutraceuticals innovation system in Europe, compared to the US. By mapping the development of the European nutraceuticals innovation system over time using a technological innovation system (TIS) analysis (Hekkert et al 2007), this paper will give more insights in the barriers related to the low diffusion



of nutraceuticals in the EU. Furthermore, by comparing the emerging European nutraceuticals innovation system with the more successful nutraceuticals system in the US, policy recommendations could be given to overcome these barriers and promote competitiveness of the European nutraceuticals industry on the global market. Additionally, this paper contributes to the innovation and transition literature by introducing the TIS approach in the life-sciences field, which is characterized by long development times, rigid patenting laws, strict regulations and ethical issues.

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