Joint Technology Initiatives are introduced as a new way of realizing long-term public-private partnerships at European level under the 7th Framework Programme of the European Union. They are intended for technological areas in which the research agendas and the resources involved have reach a point at which previous policy instruments such as Technology Platforms do not provide sufficient mechanisms of coordination anymore. Hydrogen and fuel cells are alternative energy technologies that are supposed to have reached this stage in development. Consequently, the Council of the European Union set up the Fuel Cell and Hydrogen Joint Undertaking in 2008 as the legal entity responsible for the implementation of the Joint Technology Initiative on hydrogen and fuel cells. The Fuel Cell and Hydrogen Joint Undertaking is characterized by a unique governance structure that is comprised of officials from the European Commission and representatives from the industry, public research institutes and the countries associated with the 7th Framework Programme. Its primary objective is to manage the research, development and demonstration activities in order to lead hydrogen and fuel cells to commercialization as these technologies are to contribute to the achievement of the objectives of European climate, competitiveness and energy policy.
This paper presents an empirical case study of the Fuel Cell and Hydrogen Joint Undertaking aiming at clarifying how this innovative governance structure came into being and how it actually works. First, it is shown how representatives from the industry, public research institutes and European institutions have negotiated the official governance structure of the Fuel Cell and Hydrogen Joint Undertaking. Special attention is paid to how the stage of development in hydrogen and fuel cell technologies is defined and to what governance structures are derived thereof. Second, it is outlined how the official governance structure works in practice. In particular, it is highlighted how the diverse actors from industry, research and public administration reach an agreement upon a certain direction of research against the background of European climate, competitiveness and energy policy and the stage of development in hydrogen and fuel cell technologies. Finally, this actual governance structure is contrasted with the objectives of the Fuel Cell and Hydrogen Joint Undertaking and conclusions are drawn upon its performance.
The results presented in this paper stem from a rich data pool gathered through expert interviews with people involved in the Fuel Cell and Hydrogen Joint Undertaking and in the preparation of its launch. Furthermore, they are supported by document analyses of the reports accompanying the Fuel Cell and Hydrogen Joint Undertaking as these define the stage of development in hydrogen and fuel cell technologies upon which the political discussion relies. The theoretical foundation of this paper is derived of public policy theories such as the multiple streams theory and the advocacy coalition framework which are supplemented with insights from various approaches from the field of Science and Technology Studies.

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