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Collaboration between Technology Institutes and Industries for Eco-innovation

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This paper frames the response by Technology Institutes to the challenge of eco-innovation services for industries. It addresses how the shift in business focus from competitiveness to sustainability impacts the capabilities for innovation and how the Centers of Research can help industries to achieve the EU competence through the right collaboration instruments focused on eco-innovation.

Europe needs to jump from a “catching-up” model of economic growth and development, to a model of “forging-ahead” by developing and diffusing eco-innovation and the Centers of Research can actively contribute to this change.

There may be agreement on some general and generic areas for investment as well as eco-efficiency, eco-innovation, education, or sustainable technology, but the design and implementation of specific policies implemented by the TIs have to meet two challenges:

- The lack of understanding of the barriers and opportunities
- A lack of designing and implementing, at the firm level or in the public sector, the measures that could overcome these shortcomings for eco-innovation.

The main interest of this paper is in Spanish Technology Institutes TIs, which are legally defined as nonprofit innovation and technology organizations for R&D whose aim is to enhance the competitiveness of industries and SMEs.

Appropriability problems and indivisibilities in R&D expenses affect SMEs and are a clear obstacle for eco-innovation implementation. Innovation and eco-innovation projects and services carried out by TIs contributes to reducing the lack of private investments in eco-efficiency activities that are highly expensive and uncertain for firms.

In the paper we analyze whether the information provided by TIs and obtained by an extensive field work about the current evolution of technologies is responding to firms' needs and is filling the role of the imperfect market existing for eco-innovation.* Corresponding Author: - University of Zaragoza - Department of Accountancy and Finance ** CIRCE Centre of Research for Energy Resources and Consumption / - University of Zaragoza - Department of Mechanical Engineering

Technology Institutes can be seen as an example of cooperation aimed to overcome size disadvantages. The results of an analysis based on the characterization of more than 90 TIs existing in Spain are presented in the paper in order to support the development of a better understanding the collaboration framework with industries that foster the competence by business to eco-innovate in ways of a more sustainable economy in Europe.