

**Firm Size and Openness:
The Driving Forces of University-Industry Collaboration
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The discussion of university-industry relationships, which entered the policy arena in the early 1980s, has become the property of both academics and the general public. An enormous number of contributions to academic writings and articles in the business and public press have come from policy makers in the last few years in a bid to explain, justify and regulate the interactions between universities and firms. At the European level, very few of these works have been supported by systematic data analysis. If we exclude the results of the Policies, Appropriability and Competitiveness for European Enterprises (PACE) questionnaire (which focused on large EU R&D intensive firms) and the scant information on the role of universities and public research centres available from Community Innovation Surveys (CIS) I, II and III, there is little evidence left. In a few European countries in recent years, country-specific data have been gathered and analysed. For example, the studies of Meyer-Krahmer and Schmoch (1998) and Beise and Stahl (1999) provide interesting evidence of the contribution of public research to industrial innovation in Germany.

A large number of works have studied university-industry relationships from a qualitative point of view or by relying on a case study of a single university. The aim of this current study is to provide some statistical evidence at the cross-country, cross-industry level to verify some of the hypotheses put forward in the qualitative literature. The analysis in this paper provides preliminary evidence of firm and industry characteristics that affect the contribution of Public Research Organisations (PROs, defined here as universities and other public research centres) to firms' innovative activities and that influence firms' involvement in R&D projects with PROs. We use the results of the 2000 KNOW survey covering seven EU countries, including the four largest. The survey was limited to five sectors: food and beverages, chemicals (excluding pharmaceuticals), communications equipment, telecommunications services and computer services and focused on small and medium-sized enterprises (SMEs). We examine two main issues: the contribution made by PROs to the innovative process within firms and the existence as well as the extent of co-operative R&D projects between firms and PROs.