



CONFERENCE ON CORPORATE R&D

The dynamics of Europe's industrial structure and the growth of innovative firms

# Not searching, but finding:

## Innovation as a non-linear source of the private use of public knowledge

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### Motivation / Objectives

Information – a crucial ingredient of entrepreneurial discovery. Enterprises obtain the information they need to ameliorate their innovation-related activities from a variety of internal and external sources. Our research objectives are twofold:

- Firstly, we aim at expanding previous research on the importance of public knowledge generated by universities and public research organisations to firms. This research has been almost exclusively focused on innovators.
- Secondly, we inquire whether non innovators also value public knowledge and investigate antecedents associated to their perceptions on this specific source of information.

### Methodology

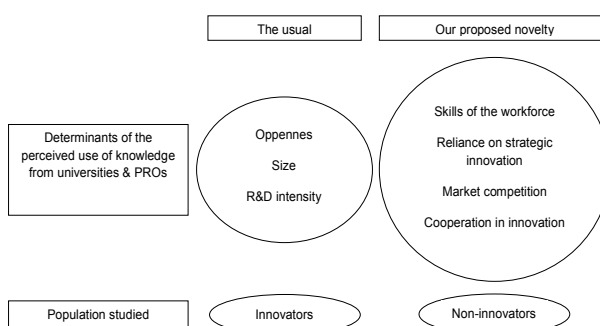
Econometric estimation of the determinants of the perceived usefulness of information provided by universities and PROs using the following variables:

Variable	Description
Perceived usefulness	Importance of U-PROs as information sources for technological innovation
Openness	Importance of other 11 external sources of information for technological innovation
R&D activities	R&D active firm
Firm size	Number of employees
Skills	Degree of technical complexity of tasks
Strategic innovation	Importance of changes in strategic orientation
Competition	Number of competitors in the market
Collaboration	For innovators, importance of collaboration with universities and PROs in product or process development

### Data base

A plant-level survey targeting firms in the Spanish manufacturing industry. 1,031 surveyed companies (50 or more employees). Unlikely most other surveys, questions about sources of information used by firms were posed to both innovators and non innovators, as defined by companies which had launched new products into the market or implemented new industrial processes in the three years prior to data collection.

### Approach



### Results

Ordered logit model of the perceived usefulness of information provided by universities and PROs for innovation-related activities of the firm

	Innovators	Innovators	Non-innovators
Number of observations	804	781	173
Log likelihood function	-953	-917	-150
Prob[x <sup>2</sup> > value]	0	0	0
Coeff. (t-ratio)	Coeff. (t-ratio)	Coeff. (t-ratio)	Coeff. (t-ratio)
Constant	-3.66 (-5.81) ***	-3.74 (-5.73) ***	-7.02 (-4.34) ***
Openness	0.91 (19.79) ***	0.91 (18.7) ***	1.1 (8.84) ***
R&D activities	0.22 (1.42)	0.21 (1.35)	0.64 (1.72) *
Ln firm size	0.25 (2.41) **	0.27 (2.49) **	0.47 (1.63)
Skills		0.1 (2.01) **	0.13 (0.94)
Strategic innovation		-0.12 (-2.16) **	-0.1 (-0.82)
Competition		-0.02 (-0.25)	-0.5 (-2.8) ***
Collaboration		0.73 (4.3) ***	
Industry dummies	Included	Included	Included

\*\*\* p<0.01; \*\* p<0.05; \* p<0.10

### Policy implications

CIS: asking non-innovators for the use of public knowledge.

Non-innovators: not promoting the use of public knowledge to innovate, but practical experience in innovation to use public knowledge.

Reconciling strategic innovation, technological innovation and the use of public knowledge.

### Next steps / The way forward

Extension to companies of all sizes.  
Facing perceptions to facts.

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