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INDUSTRY FUNDING FOR ACADEMIC RESEARCH IN INFORMATICS IN EUROPE

Pilot Study

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Industry Funding for Academic Research in Informatics in Europe

An Informatics Europe
Pilot Study

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Executive Summary

The productive collaboration between university and industry in both basic and applied research is vital to the global knowledge economy in Europe. Closer, effective links between the private sector and academia can encourage the transfer and sharing of knowledge and human resources, create long-term partnerships and opportunities, drive innovation, entrepreneurship and ultimately economic development. Successful partnerships between academia and industry are of particular importance in the field of Informatics (Computer Science, Computing, etc) where the technology development in industry moves at a pace faster than the university education and research programs can adapt. Until now, no systematic study of the funding relation between industry and academia in Informatics has been reported in Europe and therefore no knowledge exists about which research areas receive more or less funding from industry.

This report presents the results of a pilot study exploring the landscape of industry-funded Informatics research in academic institutions in Europe. The main goal was to understand the current level of industry funding going to different areas of Informatics research in Europe, similarities or differences in the way this money is invested in different countries. Nine academic institutions in nine different universities from four European countries – Germany, the Netherlands, Switzerland and UK – have participated in the study, providing data about research projects and areas receiving funding from industry in 2017. The data was collected by Informatics Europe through direct contact with heads, faculty and administrative staff of the various institutions. Areas of Informatics research being funded have been pointed by the participants or inferred from the data collected, which included details of the projects and principal investigators. To comply with data protection regulation and assure confidentially to the participants all data has been reported in aggregated and anonymized form, such that in no way it is possible to link the university, academic unit and principal investigator names to the respective funding source and amount or research project details.

The results of our investigation have shown that:

- the nine academic institutions participating in the study shared a total of 42.6M EUR of industry funding during the period investigated, consisting in an average of 4.7M EUR per institution or 233K EUR per project. Close to 200 projects have been financed and the total funding varied significantly between academic units, from a minimum of 517K EUR to maximum of 21M EUR.
- the length of funding was also not uniform, ranging from 3 months to almost 15 years, with an average of 38 months per project and resulting in 70 EUR to almost 88K EUR of monthly funding per project and from 2K EUR to almost 16K EUR per academic unit.
- Human-Centered Computing, Data Science, Computing Methodologies, and Security and Privacy received together the highest amount of industry funding, around 65%, both in terms of total and monthly funding. These areas together received around 28M EUR for the whole period surveyed, or 710K EUR per month. At the bottom end were the areas of Mathematics of Computing, Networks, Hardware, and Theory of Computation, having received together only around 5% of industry funding, 2.3M EUR in total or 74K EUR per month.
- the highest number of funded projects were in the areas of Computing Methodologies (n=41), Security and Privacy (n=24), while the lowest number were in the area of Theory of Computation (n=5), Networks (n=5), Blockchain (n=5), Mathematics of Computing (n=1). The large number of projects in one area does not necessarily imply a higher amount of funding or vice versa. As an example, we found that 5 Blockchain projects received a total amount of 2.5M EUR, while 16 projects in Software and its Engineering received a total funding amount of 1.3M EUR.
- among the more specific areas cited, Visualization, Data Science, Artificial Intelligence, Ubiquitous Computing, Data Management Systems, Blockchain, Applied Computing for Life and Medical Sciences, Systems Security, Machine Learning and Architectures were the top ten fields receiving more than 70% of the total funding reported. Each of these research areas received above 1 Million EUR from industry during the whole period of funding reported.