

RESEARCH FUNDING OPPORTUNITIES IN THE EU: IMPORTANCE OF COOPERATION

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ABSTRACT

Cooperation is crucial to the state of the art research, development and innovation projects that are proposed to be financed from the EU programmes. Financial opportunities are plentiful: Seventh Framework Programme, Competitiveness and Innovation Programme, Eureka, Eurostars, European Regional Development Fund and Instrument for Pre-Accession Assistance. Their common feature is the request for cooperation between companies and research. This phenomenon has attracted a lot of interest in the past, identifying different motives for both sides. The difference of motives can be overcome in the cooperation process, especially if supporting infrastructures are in place in both types of organisation.

Keywords: research and development, innovation, financial programmes, cooperation

INTRODUCTION

The world in general, and the world of research and development in particular, has witnessed many changes in the recent decades. While the costs of research and development (R&D) have increased, the national public funding for the same has in many cases diminished. Therefore the researchers wanting to conduct world class R&D have to look elsewhere for sources of funding. At the same time, the pressures of globalisation are forcing the companies to innovate – to develop new products, processes and services. Innovation can be a result of practical experience of companies or own research and development. But in many cases, it is more practical for the companies to look for already sources of existing knowledge within universities and research institutes.

Thankfully for both companies and researchers in universities and research institutes, the European Union is increasingly recognising the importance of R&D and innovation. This recognition does not take place only in the form of slogans, such as the “Lisbon Objective” and “Innovation Union”, but also in the form of financial programmes supporting research and development in the EU present and future Member States.

The financial support, embodied in these programmes, is supported by recent economic and social research on the process and impacts of research, development and innovation: the endogenous growth theory [1], [2], national systems of innovation approach [3], and open innovation model [4]. These approaches argue that R&D is crucial for long-term economic growth, and that the companies do not perform it to sufficient extent due to the potential knowledge spill-overs and public goods effect. Also, the EU financial programmes try to overcome the issues of fragmentation of European research in public research organisations and their under-use for the purposes of being the knowledge base for the companies. From the author's practical experience, it is evident that a successful partnership between public research organisations (PROs) and companies, in particular small and medium-sized enterprises (SMEs), is needed for a successful project proposal in the EU research programmes, regardless of the source of financing.

FINANCING OPPORTUNITIES AVAILABLE

Reflecting the importance of R&D and innovation in the EU, there is more than one programme supporting it. The largest in the sense of its budget is most definitely the **Seventh Framework Programme**. Its budget is 54 billion EUR for the period 2007 – 2014, of which

over 30 billion EUR is earmarked for cooperative research and development projects in the fields of Health; Food, Agriculture and Biotechnology; Information and Communication Technologies; Nanosciences and Nanotechnologies, Materials and New Production Technologies; Energy; Environment (including climate change); Transport (including Aeronautics); Socio-economic sciences and Humanities; Security and Space. Research project is eligible for financing in the Framework Programme (FP) if it will be implemented by at least three different organisations (“Project Partners”) from three different countries – members of EU or associated with the Framework Programme. In reality, however, the number of partners is often significantly larger. The selection criteria include scientific quality and state of the art of the proposed research; quality of the partners that will implement the project, their compatibility, proposed plan for project management and costs needed; and finally, the impact the proposed research will have at the EU level. The competition in the FP is quite severe, resulting that approximately 24% of the proposed projects are actually financed.

Another programme, aimed more at innovation end of the spectrum, is **Competitiveness and Innovation Programme**. With small and medium-sized enterprises (SMEs) as its main target, the Competitiveness and Innovation Framework Programme (CIP) supports innovation activities (including eco-innovation), provides better access to finance and delivers business support services in the regions. It encourages a better take-up and use of information and communication technologies (ICT) and helps to develop the information society. It also promotes the increased use of renewable energies and energy efficiency. The programme runs from 2007 to 2013 with an overall budget of € 3621 million. It is divided into three operational programmes with specific sets of objectives:

- The Entrepreneurship and Innovation Programme (EIP)
- The Information Communication Technologies Policy Support Programme (ICT-PSP)
- The Intelligent Energy Europe Programme (IEE)

The above-mentioned programmes are open to all EU Member States and countries willing to pay membership fees to participate in them (so-called associate countries). This makes them relevant for the whole of the EU, but on the other hand the competition is often extreme. Some EU programmes and funds, however, are open only for specific countries. Most research and development funding, aimed at particular country but financed, is **European Regional Development Fund** for EU Member States and **Instrument for Pre-Accession** for the Candidate and Potential Candidate Countries.

Additionally, there are EU-wide programmes which are not financed by the EU: **Eureka** and **Eurostars**. Eureka is an intergovernmental network launched in 1985, to support market-oriented R&D and innovation projects by industry, research centres and universities across all technological sectors. It is composed of 39 members, including the European Community. With its flexible and decentralised network, Eureka offers project partners rapid access to skills and expertise across Europe and national public and private funding schemes. In Eurostars, the result of the project must be in the market within 2 years of its completion. Eurostars Programme is a European Joint Programme dedicated to the R&D performing SMEs, and co-funded by the European Communities and 33 Eureka member countries. Eurostars aims to stimulate these SMEs to lead international collaborative research and innovation projects by easing access to support and funding. It is fine-tuned to focus on the needs of SMEs, and specifically targets the development of new products, processes and services and the access to transnational and international markets.

PARTNERSHIP: KEY INGREDIENT OF A SUCCESSFUL PROJECT

All the above-mentioned R&D programmes have a common feature: very often they require a consortium to implement a project. In other words, cooperation and partnership

between different organisations from different countries is a requirement. The reason for this requirement is relatively simple. Firstly, cooperation between various countries ensures that there is no replication of research effort (something that can easily happen when there are 27 EU Member States). Secondly, cooperation between different sectors (for example cooperation between research organisation and company or a non-governmental organisation) also ensures that the results of research will actually be used in practice, on the market, in the form of new or significantly changed products, services or processes. This is an issue where the EU has still room to grow, compared to the competitors.

In the past decade or two, there has been a proliferation of studies on innovation cooperation between companies and public research institutions (PROs). The issue attracts importance, because it is often a subject of EU and national policy initiatives on one hand, but is difficult to implement in practice. The reasons for practical difficulties can be found in complex process of cooperation, but also in the motives and reasons for cooperation, which are different for companies and research institutions.

A recent British study [4] has classified companies' reasons and motives for cooperation with PROs as follows:

Table 1: Reasons for cooperation with PROs and concrete motives of the companies

REASON	MOTIVE
Necessity	Responsiveness to government initiatives / policy Strategic / Institutional Policy
Asymmetry	Maintain control over proprietary technology
Reciprocity	Access to students for summer internship or hiring Hiring of faculty members
Efficiency	Commercialise university-based technologies for financial gain Benefit financially from serendipitous research results Cost Savings (easier and cheaper than to obtain a license to exploit foreign technology) National incentives for developing such relations such as tax exemptions and grants Enhance the technological capacity and economic competitiveness of firms Shortening product life cycle Human Capital Development
Stability	Shift in knowledge based economy Business growth Access new knowledge, cutting-edge technology, state-of-the art expertise/ research facilities and complementary know-how Multidisciplinary character of leading edge technologies Access to research networks or precursor to other collaborations Solutions to specific problems Subcontract R&D (for example due to lack of in-house R&D) Risk reduction or sharing
Legitimacy	Enhancement of corporate image

On the other hand, the reasons and motives for cooperation of the research organisations are different [4]:

REASON	MOTIVE
Necessity	Responsiveness to government initiatives / policy Strategic / Institutional Policy
Asymmetry	Maintain control over proprietary technology
Reciprocity	Access to complementary knowledge and state of the art equipment Job opportunity for students
Efficiency	Access to state financing for the research Business opportunities (exploitation of research results ...) Personal financial gain for the researchers
Stability	Transition to the knowledge economy Access to new knowledge To get better insight in the curriculum development or practical knowledge

	Exposure of students and colleagues to practical problems
	Publication of articles
Legitimacy	Social pressures
	Services to the economy or society
	Support for innovation activities
	Contribution to regional and /or national economy
	Search for the recognition and reputation as the researcher

It can be seen that even though the overall reasons might seem the same, particular motives are significantly different. The only motive, which can be found on both sides, is reciprocity – employment. This gap between motives for cooperation is reflected in the process of establishment of cooperation, which can be rather long.

First stage in cooperation is **awareness** that there are other potential partners [5], which is followed by the first contact. If crucial **first contact** is difficult, vague or causes confusion, it can affect the overall relationship. This is especially important in the light of the fact that majority of the small and medium-sized companies (which represent 99,8% of all companies) cannot really express their needs in the language PROs would understand. This phenomenon is usually called *information gap 1* [6]. Also, companies can have a hard time assessing, how much participation of PRO is worth – *information gap 2* [6]. This is often reflected in the fact that companies seem to think that the PROs are too expensive or that they do not provide the knowledge company needs. In this stage, it is very important to clarify the project objectives. If first contact is successful, a establishing credibility between project partners – **socialisation** – follows. In this phase, different motives have to be confronted and discussed to ensure that both parties will be happy with the project objective. This is of course easier when partners have previous experience of cooperation. If not, the process of establishing trust can take up to 5 years. After successful socialisation, the phase of **externalisation** ensures that joint agreed project objectives are externalised (in our case, in the form of project proposal). After externalisation is successful, the process of project implementation – **combination and internalisation** can take place.

However, to establish cooperation, it is very important that there is adequate support structure in place in both companies and PROs which can help manage the differences in motives among the organisations. If there is such support, it is likely that cooperation will be repeated and become ever more successful in time.

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