



H.F.R.I.
Hellenic Foundation for
Research & Innovation

Description of the funded research project
1st Call for H.F.R.I. Research Projects to Support Faculty
Members & Researchers and Procure High-Value
Research Equipment

Title of the research project:
Greek Participation in European Research Networks (1984-2018) and its Impact on Innovation and Knowledge-Intensive Entrepreneurship

Principal Investigator: Yannis Caloghirou,
NTUA Emeritus Professor

Reader-friendly title: NETonKIE

Scientific Area: Management & Economics of Innovation

Institution and Country: National Technical University of Athens (NTUA), Greece

Host Institution: National Technical University of Athens

Budget: 175.907,16 €

Duration: 36 Months



Research Project Synopsis

The **main target** of the NETonKIE research project – being implemented by the Laboratory of Industrial and Energy Economics (LIEE) at NTUA - is:

1. to analyse in-depth the participation and role of the Greek organisations (businesses, universities, research centers and other public organisations) in the collaborative research networks formed through the Research Joint Ventures (RJVs) funded -under competitive conditions- by the EU in the context of the seven Framework Programmes (1984-2013) and Horizon 2020 (2014-2020).
2. to provide in-depth insight on the impact of the relevant research activity on innovation and the emergence of knowledge-intensive entrepreneurship (KIE).

In particular, by combining **diverse but complementary research methods**, NETonKIE aims at investigating:

- the nature, structure and evolution of the EU-funded collaborative research networks,
- the participation patterns, positions (central, peripheral actors) and different roles of participating organisations (e.g. research units, technology providers, technology users, project coordinators) as well as the intra-project structure and knowledge flows among partners,
- the participation determinants of Greek organizations and how they benefit from their presence in the networks,
- the impact of the projects on the creation and diffusion of knowledge, on innovation outcomes, as well as the wider developmental impact,
- the role of the young knowledge-intensive firms in these networks and the effect of their participation in their performance and evolution.

Project Originality

The **scientific originality** of NETonKIE lies in:

1. the **combination of various empirical methods and sources for investigating under-researched issues** regarding EU Framework Programmes (FPs). This multi-method analysis increases the possibilities of getting varied and extensive results, and thus better understanding a complex phenomenon.
2. the use of a unique and extremely rich database, **STEP-to-RJVs**, in order to offer a more complete and, at least to our knowledge, the most up-to-date picture of networking activity attained through EU-funded research projects covering eight consecutive programmes (1984-2020). In this vein, it will also offer a comprehensive picture of the Greek participation and its evolution over time.

Using the extensive STEP-to-RJVs database, **Social Network Analysis (SNA)** -a valuable but underutilized method in innovation studies- will be employed to provide insights for a longitudinal view of the EU-funded research networks regarding the structure of network relationships, the position of individual organizations as well as the assessment of their function as structures promoting knowledge creation and diffusion, technology transfer and hence enhancing the production and diffusion of innovation.

In addition to SNA, **a mixture of qualitative and quantitative research methods** (survey work, case studies, experts' views, secondary desk research) will be used to assess the scientific, innovation and economic impact of FPs and enlarge our understanding on the potential of EU-funded research collaborative networks in fostering knowledge-intensive entrepreneurship.

Expected Results & Research Project Impact

This research will contribute to **the ongoing debate** about the targets and effectiveness of research funding and network policies at EU level by shedding more light on the research collaborative networks promoted under Framework Programmes (FPs) covering a period of 36 years. More specifically, this research work will:

1. further explore the **behavioral additionality** of EU science and technology policy and how it has been evolving under eight consecutive FPs in terms of impacting upon **the organizational and national/regional capabilities to innovate**.
2. provide useful **policy recommendations** on adopting and implementing **a more clear national RDI strategy towards FPs**, strengthening the support measures for FP participation (especially in terms of young firms), leveraging best practices in FP participation for Greek actors, and promoting missing links for knowledge diffusion and innovation deployment among organisations holding prominent network positions (such as Greek universities and research institutes) and other private actors and public agencies.
3. offer useful insights also at the **European policy-making level**, in terms of improving the efficiency and effectiveness of research networks by fostering collaborative learning, strengthening the linkages among the different types of participating organizations, facilitating a wide diffusion of knowledge, and promoting knowledge-intensive entrepreneurship.

The importance of this funding

HFRI's funding is very significant and critical for the implementation and promotion of the specific research work as it:

1. provides the opportunity for **a dedicated and collaborative research work by researchers of various experience levels** (Professors, senior and post-doc researchers, PhD students) that constitute the NETonKIE research team, for a 3-year period.
2. provides the **technical equipment** (hardware and software) that is necessary for conducting part of the research project's empirical work (social network analysis, statistical and econometric analysis etc.).
3. enables the **research team's networking** with foreign and domestic actors from academic, business and public sector as well as the civil society, in the context of empirical work implementation and discussion/diffusion of the project ideas and results.
4. supports the **dissemination activities** of the project such as the participation in international and national scientific conferences, the organisation of international and national workshops/seminars, and the presentation of project results to media.



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