

# PORTUGUESE ENGAGED RESEARCH AND LEARNING COMMUNITY

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## Abstract

The current research was performed within the *ENtRANCE* Erasmus+ project in order to identify how may Portuguese Higher Education Institutions (HEI) provide independent participatory research support in response to concerns experienced by civil society, namely based on EU societal challenges. Even though the Biosense project [1] assumed the creation of the first Science Shop in Portugal, it was only active between 2011 and 2013 and there is still no formal evidence of any other one. Nevertheless, several Portuguese HEIs already provide informal services on behalf of citizens and local civil society.

In order to better understand the context of local communities, a CSO (civil society organizations) needs study was conducted in Portugal, as well as in other partner countries of the project. This study was conducted using a mixed methods approach consisting of literature review, online survey and qualitative interviews to the diverse types of CSOs. The results reveal that the majority of Portuguese CSOs need HEI support to help vulnerable people like children and old people at risk, handicapped and poor people, etc. Thus, the activities that promote well-being, health and an inclusive society are the most common, but all societal challenges are partially covered by Portuguese CSOs except Intelligent, green and integrated transport. Thirty-one organizations (83,2%) would like to collaborate more with HEIs through research and they provide.

Teachers and researchers' competences at Maia University Institute (ISMAI) and Maia Polytechnic Institute (IPMAIA) cover all areas of the 7 societal challenges. In particular, they collaborate with Research Methods' course students. The students get to know the research topics provided by the CSOs in the needs study and then they create multidisciplinary groups and choose one of the research topics/CSOs in order to perform two semesters of applied research using mixed methods. These multidisciplinary students with the support of the teachers and researchers of each research area contribute with an innovative method starting by qualitative and proceeding with quantitative approaches in order to balance between depth and breadth [2] of the research topics they chose. The end result is a case study [3] which is the best short format to publish the results but especially to share them with the CSOs. Therefore this collaborative process, similar to a new service development [e.g. 4], may be repeated every school year in order to formalize a Portuguese Science Shop that provides research services to civil society.

**Keywords:** Societal challenges, Science Shop, Higher Education Institutions, civil society organizations, qualitative, quantitative, case study.

## 1 INTRODUCTION

The current research was performed within the *ENtRANCE* (Engaged Research Connecting Community with Higher Education) Erasmus+ project in order to identify how may Portuguese Higher Education Institutions (HEI) provide independent participatory research support in response to concerns experienced by civil society, namely based on EU societal challenges.

The following keywords: Community-Based Research, Innovative and Responsible Research, Action Research and Participatory Research were used to perform the literature review. Even though the Biosense project [1] assumed the creation of the first Science Shop in Portugal, there is still no formal evidence of any other one. Nevertheless, several HEIs already provide services on behalf of citizens and local civil society as can be concluded from this initial review.

There are some scientific publications already by Portuguese HEIs or researchers, mostly since 2010, when the subject started to be more analysed. The majority of the publications are written in Portuguese, namely a master [5] and two PhD thesis [6], [7], but there are also five publications in international journals. These publications mostly address health [7]–[13] related issues.

Castro et al. [1] reviewed the different models of governance of science in Portugal from the dictatorial regime (1926-1974) until the present and the multiple forms of relationship that science has established with society, in order to try to understand the absence of, and also resistance to initiatives such as science shops. They concluded that the scarce participatory or collaborative experiences in Portugal do not demonstrate an absence of science involvement in society, but are rather a consequence of the State's frequent adherence to the "deficit model" which characterizes the relationship between citizens and science. The "deficit model" considers citizens as "blank sheets" in which scientific information can be inscribed through popularization and education and has placed obstacles to their access to scientific knowledge. The Biosense project aimed at overcoming these limitations based in a Science Shop which involved two universities through the co-operation of the Institute for Molecular and Cellular Biology (University of Porto) and the Centre for Social Studies (University of Coimbra) and it was active from 2011 until 2013.

More recently, Oliveira [6] studied the Portuguese and Spanish societies' participation in Science and Technology namely focusing on climate change. This PhD thesis used document analysis, interviews, questionnaire and focus groups to analyse perceptions and practices about how citizens of these countries have been called to participate in scientific debates, to identify factors that have inhibited their participation and it also suggests measures that can be adopted by HEIs to generate interest in citizens for this participation. The achieved contributions are the scientists' and communication professionals' encouragement in science communication which is strongly influenced by the HEI's organizational culture, the available resources, the relationships they establish between themselves and the way they perceive the civic engagement potential. In what concerns the citizens, this thesis aimed at facilitating access to information and to encourage and stimulate opportunities for interaction and mutual learning between the various social actors.

According to Delicado, Schmidt, Guerreiro, & Gomes [14], the role of local knowledge - lay, ecological, indigenous or even stakeholder knowledge - in planning and environmental related decisions remains unclear. Thus they performed in-depth interviews with fishermen from three coastal areas in Portugal in order to understand their perceptions about coastal and climate changes, coastal planning and interventions, public participation and their role on coastal management processes. The analysis of the interviews revealed important results such as that fishermen have a very rich and multifaceted knowledge of the sea and of the coast, due to their activity, their proximity to the sea and the fact that the activity is usually passed over from parents to their children. In line with Castro et al.'s [1] and Oliveira's [6] conclusions, Delicado, Schmidt, Guerreiro, & Gomes [14] also argue that despite being aware of the relevance of their knowledge, Portuguese lay citizens have not been able to make their knowledge available to experts and decision makers. In the case of the fishermen they only reveal some capacity to intervene when represented in associations or unions, which highlights the importance of collective action.

Martins [5] also argues that the participatory health research is a paradigm of collaborative research that should involve its protagonists in the research process and recognize the unique strengths that each brings to the process. More inclusive and participatory approaches are more efficient because they integrate participants at all stages and generate knowledge dialogically co-created, incorporating multiple perspectives and types of knowledge.

Focusing on a different subject, Teixeira de Melo & Alarcão [15] state that community-based family support is an efficient and respectful way of helping families with complex lives. Thus researchers should strive to produce and share relevant knowledge with the families and should also be concerned with the development, implementation, and assessment of these initiatives as well as working with the community itself to build knowledge-guiding programs. Previously those authors [16] had already addressed the process and outcome of a multiple case study evaluation of the first implementation of IFAIM (Integrated Family Assessment and Intervention Model) in local communities in Portugal. This model was designed by them to assess and intervene in families with at-risk or maltreated children and support the activities of the child protection system. Nevertheless, multiple factors affected the method implementation, such as team related issues, the organizations, and the communities which originated that the authors proposed an improved model based on those results.

## 2 METHODOLOGY

The research methodology was twofold:

### 2.1 Portuguese CSO (civil society organizations) needs study identification

In order to better understand the context of local communities, the CSO needs study was conducted in Portugal, as well as in other partner countries of the project. This study was conducted in all countries using a mixed methods approach consisting of literature review, online survey and qualitative interviews to the diverse types of CSOs.

### 2.2 Multidisciplinary groups to address CSO needs

In what concerns the multidisciplinary groups to address CSO needs, teachers and researchers' competences at Maia University Institute (ISMAI) and Maia Polytechnic Institute (IPMAIA) cover all areas of the 7 societal challenges. In particular, they collaborate with Research Methods' course students. The students get to know the research topics provided by the CSOs in the needs study and then they create multidisciplinary groups and choose one of the research topics/CSOs in order to perform two semesters of applied research using mixed methods. These multidisciplinary students with the support of the teachers and researchers of each research area contribute with an innovative method starting by qualitative and proceeding with quantitative approaches in order to balance between depth and breadth [2] of the research topics they chose. The end result is a case study [3] which is the best short format to publish the results but especially to share them with the CSOs.

## 3 RESULTS

### 3.1 Portuguese CSO (civil society organizations) needs study identification

In Portugal there are 61,268 entities working in the Social Economy that contribute to 2.8% of the Portuguese Gross Value Added (GVA) and 6% of paid jobs in the National Economy (INE, 2016).

The entities operated in 12 groups of activities that were classified according to the CAEES – Classification of the activities of the entities in the social economy. The activities in that list were Agriculture, Forestry and Fishing; Transformation Activities; Commerce, Consumption and Services; Development, Habitation and Environment; Financial Activities; Teaching and Research; Health and Well-being; Action and Social Security; Culture, Sports and Leisure; Cults and Congregations; Professional, Political and Union Organizations; and Non-Specified.

About half of the 61,268 identified entities (51%) were acting in the areas of Culture, Sports and Leisure and only a small part (15 %) was acting on the fields of Action and Social Security (Figure 1). These are the organisations that matter to our Project.

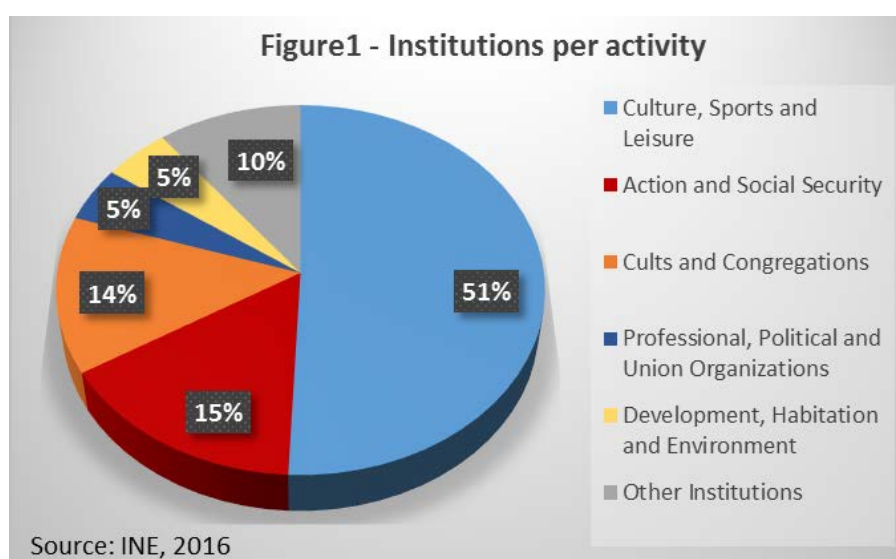


Figure 1. Institutions per activity

The online survey was disseminated to CSOs with the aim to understand if these organizations are facing research questions that can be answered by higher education students supervised by experienced researchers. In order to reduce barriers, the survey questionnaire was translated to partner's languages. Several invitations were sent to the intended sample of 950 CSOs (about 10% of all Action and Social Security organisations in Portugal) to answer the survey. Nevertheless, despite all efforts, only 37 answers were obtained, because these kind of organisations are usually based on voluntary workers.

Many of the topics presented in the survey by 67.7% of the organisations' sample are more related with problems of CSOs' management than with societal problems. The main societal challenges are those related with health, demographic changes, well-being, and inclusive societies.

Afterwards the qualitative research was conducted applying a semi-structured interview method in order to get a deeper understanding of particular issues, e.g., to learn what difficulties are CSOs facing in solving societal problems/issues, in what respect CSOs need scientific support and what would they consider an effective collaboration with HEIs. The interviews were also made in Portuguese. The fifteen interviewees were chosen on the basis of the list of organisations that have attended the Portuguese public presentation of the project and they are all technical directors of the institutions they represent. The interview questions were essentially divided in the three following subjects:

- Societal problems/issues addressed by CSOs.
- Difficulties encountered by CSOs in solving societal problems/issues.
- Trends of collaboration between CSOs and HEIs in terms of research for the future.

The needs study's results reveal that the majority of Portuguese CSOs need HEI support to help vulnerable people like children and old people at risk, handicapped and poor people, etc. Thus, the activities that promote well-being, health and an inclusive society are the most common, but all societal challenges are partially covered by Portuguese CSOs except Intelligent, green and integrated transport. Thirty-one organizations (83,2%) would like to collaborate more with HEIs through research. Nevertheless, the main finding of these interviews is that social organisations are mainly concerned with vulnerable people but what they want from Academia are models to gather financial sustainability, as well as specific studies and impact studies.

### 3.2 Multidisciplinary groups to address CSO needs

A Trello board (www.trello.com) (Figure 2) was created in order to stimulate the collaboration between all interested parties, either CSOs, researchers from the different partners or students. This board was separated by 7 lists (associated to EU's 7 societal challenges), each of which included cards that described the on-going projects. If anyone would wish to add a new project he/she should copy the Template card on top of each list and change its title.



Figure 2. ENTRANCE collaborative platform (www.trello.com)

Then he/she might add short details in the card description and further information in the CaseStudy.docx attached document which followed the main sections:

- 1 Introduction
- 2 Story of the problem
- 3 Scientific framework
- 4 Social intervention
- 5 Theoretical and/or practical implications

The 5 most relevant Portuguese cases were published in the project's handbook and addressed the following research questions:

- Are the Educational Centres' programs and responses adapted to gender differences?
- How a skate, as artistic and sport expression, can be effective to promote personal and social skills that are important to prevent juvenile delinquency?
- Feasibility of tablet usage as a working tool in cognitive group trainings: effect of cognition, independence, technological experience.
- What is the impact on children development due to the nursery school attendance?
- What is the impact on the elderly due to the attendance of day care?

## 4 CONCLUSIONS

The results have several theoretical implications, but the practical knowledge about each societal problem and mainly the potential improvements in the CSO's daily activities are the most relevant and quickly usable contributions. Therefore this collaborative process is similar to a new service development [e.g. 4], is adapted to different areas and may be repeated every school year in order to formalize a Portuguese Science Shop that provides research services to and with civil society.

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