



## Article

# Contribution of Higher Education Institutions to Social Innovation: Practices in Two Southern European Universities

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**Abstract:** The interactions between the higher education sector and society and industry have been attracting increased attention in terms of ways to develop social innovation solutions to societal problems. Despite calls from politicians and the existence of some guidelines, we know little about how higher education could incorporate social innovation activities into its structure and missions. This study examines some practice experiences in two southern European public universities in Portugal and Spain. We show that the third mission of universities, which includes social innovation, is both linked to the first two missions of teaching and research, depending on the university's historical and social context. The high dependence of higher education institutions on economic returns increases the importance of political action to drive the development of social innovation activities. This conditioning factor seems to be intrinsic to some of the barriers that have been identified, such as lack of legitimization and recognition of social innovation practices at the formal governmental level.

**Keywords:** higher education; social innovation; university third mission; social challenges; Portugal; Spain



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## 1. Introduction

In recent years, policymakers, academic managers and researchers have shown increased interest in the interactions between Higher Education (HE) and society and industry or the third mission of universities [1]. Complex global societal problems, such as climate change, migration and the current COVID-19 pandemic, have increased pressure on Higher Education Institutions (HEIs) to mobilize resources, knowledge and expertise for the common good [2]. In Europe, this is being accomplished by political guidelines related to the modernization of HE [3], which highlight that HE should mitigate social inequalities through the development of social innovative solutions appropriate to the needs of the community. Some examples include studies on Social Innovation (SI) (e.g., [4,5]), the emergence of foundations and private research centers focused on SI [6] and funding to allow HEIs to address societal problems working in collaboration with other social actors [7].

However, despite appeals for HEIs to increase their SI activities, we know little about how these processes could be integrated into their structures and missions [8]. The small participation of HE in SI activity is causing concern among politicians, academics and societal stakeholders. Cinar and Benneworth (2020) [9] suggest that the rate of universities' participation in SI activities and collaborations with other universities is only 15%. One of the reasons for these low rates of participation may be due to lack of knowledge about SI.

The Latin American countries have a tradition of disseminating knowledge to surrounding communities and organizations [10], especially through publications (e.g., [11–13]). Papers including the keywords “sustainable development”, “education for sustainable

development”, “social responsibility”, and “social innovation” have increased greatly since 2010 [14,15].

Additionally, the Responsible University Social Innovation (RUSI) model, which was developed by a group of 16 universities (14 Latin American and 2 European), is regarded as the reference model in the SI field [13]. SI provides solutions to social and global environmental problems within this RUSI framework, which includes stakeholders and social actors and results in positive social transformations. The RUSI model includes six dimensions related to the areas of teaching, research, outreach and management. These dimensions are: (i) curriculum and pedagogy—which integrates a service-learning approach committed to improving quality of life for diverse social groups; (ii) organization—which refers to the institution’s management in terms of mission, vision, policy, strategic planning, organizational structure, processes and impact on SI actions; (iii) research, development and innovation—which includes the contribution made by R&D to SI; (iv) relationship to the context—which includes the links established by the university with societal institutions and communities; (v) environment—in terms of sustainable development through education and management policies; and (vi) internationalization—which includes integration of an international and intercultural dimension in the university’s missions, practices, development plans, curricula and policies.

In addition to the dimensions considered in an analysis of the processes inherent in the development HEIs’ SI activities, Benneworth and Cunha (2015) [16] proposed three other ways that HEIs can contribute to SI: (i) knowledge—enabling advancements based on existing knowledge and knowledge cocreated with the target community; (ii) material resources—providing funding or facilitating access to university resources; (iii) human resources—providing advice and mentoring to facilitate access to external resources and networks. The authors suggest that these activities also benefit the HEI by posing research questions and developing research practices, developing networks useful for implementation of HEI projects and introducing students to professional contexts, and giving visibility to the HEI, which helps to attract new students and new collaborations with the community. These should be considered potential benefits; however, whether academic leaders perceive them as benefits or not is not known.

According to Benneworth and Cunha (2015) [16], a university contribution to SI is optimized if there is an alignment between SI and the university’s strategies. It might be difficult for SI to become a formal university mission in the current highly competitive environment [8,17] and in the context of the increased autonomy of HEIs [18]. While the transfer of technical knowledge is justified by the expected economic returns, transfers related to social entrepreneurship do not guarantee direct monetary or other returns because outcomes can be difficult to identify and evaluate [8]. The competitive environment, characterized by pressure to improve teaching and research quality, can lead to what some authors describe as “mission overload” [16,19,20], where institutions are forced to invest in what appears to be the most strategic and achievable objectives.

University extension services and social responsibility—the topics of numerous studies in recent years [2]—clash with the idea of the “entrepreneurial university”, whose advocates defend the commercialization of knowledge and transfer of technology transfer, and the developmental models which conceived the democratization of knowledge as a core university principle. Others argue that universities should not be the main drivers of societal developments and instead claim that the focus of HEIs should be on research and teaching and achieving excellence in those domains that serve the interests of and make a positive contribution to society [1]. However, others propose a supremacy logic related to use of technology to solve social problems, which leads to the “delegitimization” of other activities that use university knowledge for SI, and in turn prevents the emergence of these other SI related activities [9]. All of these arguments raise questions about the relevance and perception of HE involvement in SI activities. To be part of the university third mission, they need to be perceived by peer communities as relevant [9].

### *The Present Study*

The above context highlights the need for more knowledge about the main drivers of more intensive engagement of HEIs in SI actions and a better understanding of the factors that might present potential barriers to the development of these actions. A few guidelines have been published to inform the development and implementation of SI related actions. However, we need more extensive exchanges of information and reflection on experience in different contexts with different characteristics, organizational logics and strategic plans. This would allow more meaningful recommendations and more consolidated knowledge. Dissemination of practical experience is also important to provide a better understanding of how ideas can be implemented in practice, and the main facilitators, barriers, advantages and disadvantages related to implementation of SI.

The present study focuses on SI in relation to HEIs and considers its organizational dimensions [13] based on the study of two southern European public universities in Portugal and Spain. These countries were selected for their similarities after the 2008 international financial crisis, which led to a major recession and gave rise to SIs to address basic societal needs and meet the demands of society's most vulnerable groups (the unemployed, the elderly, ethnic minorities, women, noneducated persons and young people). Our research questions are: (i) How can we characterize the SI actions of these two universities? (ii) What are the main drivers of and barriers to implementation of the SI actions identified by academic leaders in the two universities? (iii) What lessons can be learned from the different HE regulatory models in each country? (iv) How could public policy at the regional, national and European levels promote SI?

## **2. Social Innovation in the European Context**

Since their foundation, European universities have been closely linked to their host societies. They are dependent on sponsors which influences their relationships with society [16]. From the 1980s, European HEIs have become increasingly centralized through a process of strategic modernization based on payment-by-results and managerial autonomy to improve the productivity and efficiency of public spending [21]. This has affected the relationships between universities and society by: (i) framing the value of university activities in cash terms; (ii) ranking university activities based on their strategic importance; and (iii) encouraging universities to focus on only a few strategically important activities [22]. This implies that societal engagement is managed in financial terms as a "third mission" and has increased the importance of public engagement (especially with business) and income-generating activities and has marginalized other activities [23]. The result of prioritizing engagement with the business sector is that other social engagement activities have become less visible and less valued while the emphasis on informal relationships with voluntary community groups has increased.

Societal engagement is important for universities whose regulatory, legislative, policy, governance, finance and funding frameworks influence their institutional practices. These regulatory frameworks tend to be pan-European. Financial support for research provided by the Horizon 2020 programs (e.g., Science with and for Society) allow direct collaboration between researchers and civil society, opportunities for capacity building and innovative ways of linking science to society [24], and they encourage innovation activity to address the Agenda 2030 Sustainable Development Goals [25]. However, most HE regulatory incentives are national or regional and are based on legislation and funding that are not equally well-developed. The Netherlands, Finland and Sweden assign HEIs clear legal duties, but provide very little public funding. In the UK, there is no legislation laying down what universities should do, but UK HEIs receive substantial public funding (for more detail by country, see [26]). Regulatory frameworks and the plurality of models across Europe tend to make certain activities choices rather than mandates. The choices tend to be based on the synergies between the teaching and research missions. In the next section, we describe the regulatory frameworks in place in Portugal and Spain, neighboring countries

with different regulatory models and different HEI performance quality measures, which has consequences in terms of the achievement of broader European societal goals.

### 2.1. Regulatory Framework in Portugal

Similar to other European countries, in Portugal the main evolutions related to universities' participation in the education and science/technology system took place mainly in the post-World War II period. Greater awareness of the role of education and scientific and technological development in economic growth emerged during these years. After the 1974 revolution in Portugal, the HE system expanded with the creation of new universities, democratization of access to education and the objective of easing access to education for the most disadvantaged socio-cultural groups. In 1986, a basic HE system law was approved and this resulted in a profound transformation to the education system and introduced polytechnics into the HE system. In 1988, universities became autonomous, which changed their relations with government and the central administration [27]. In 2005, the HE system experienced further consolidation and integration with the EU, resulting in stronger institutions, greater autonomy, growth and inclusion of more disciplines in the scientific system to align education cycles to the Bologna Declaration [27]. In 2007, the HEI Legal Framework (REJIES) was approved; this established the organizing principles of the HE system and defined standards for its scientific, pedagogical, cultural, disciplinary autonomy and accountability. It also established participation of external elements in managing bodies, with responsibility for approving HEIs' planned activities and annual accounts. It promoted organizational and legal diversity of these public institutions and recognized research centers as part of the university management framework.

Since the 1980s, the Portuguese HE system has been a binary system. It currently includes 39 universities and 69 polytechnics (37 public and 71 private). The public institutions attract the majority of students and resources [28]. In universities, the programs are longer and more in-depth, having the exclusivity of PhD programs, while in polytechnic institutions the graduation courses are shorter, more practical and technology-based.

The science, technology and HE budget is financed mainly by transfers from the state budget, and revenue is derived from HE tuition fees, European cofinanced projects, donations and payment for services provided to the community [29]. The Foundation for Science and Technology (*Fundação para a Ciência e a Tecnologia*—FCT) is the Portuguese public agency which supports science, technology and innovation, in all scientific domains, and comes under the Ministry for Science, Technology and HE. FCT provides funding via different instruments for research projects, advanced training, scientific employment, research units and international cooperation activities.

Based on the 2030 Agenda for Sustainable Development [25], societal challenges involving the participation of citizens are a priority in the FCT agenda to promote more inclusive and innovative societies. SI is also addressed by the Thematic Agendas of Research and Innovation of Social Inclusion and Citizenship across the four dimensions of: (i) social inclusion in the knowledge society; (ii) social protection, income and employment; (iii) citizenship and quality of democracy; and (iv) territorial equity and mobility. Collaborative Laboratories (Co-Labs) were developed to create skilled and scientific jobs in Portugal based on implementing research and innovation agendas geared towards creating economic and social value. The Co-Labs are expected to stimulate the active participation of the scientific/academic, business and public communities in the analysis of and solutions to large-scale and complex problems.

### 2.2. Regulatory Framework in Spain

Spanish universities are among the oldest in the world. The University of Salamanca was founded in 1215 and the University of Valladolid was founded in 1292. These early universities were small institutions focused on Law, Philosophy and Theology and governed mostly by monarchs and the Church. Some universities such as the University of Valencia, which was founded in 1500, were described as "citizen universities" and were controlled

by the relevant city. In the 19th century, when Spain adopted the Napoleonic HE system, Spanish universities became regulated by laws and standards issued by the state [30]. In the 1970s, a new model emerged, with a shift from an elite to a mass HE system. An important legal reform—the University Reform Act (*Ley de Reforma Universitaria*—LRU)—was enacted in 1983 and transferred responsibility for universities from central government to the 17 autonomous regions of Spain. The LRU democratized the internal structure of universities and involved a change from direct state intervention to institutional autonomy.

In 2001, the *Ley de Ordenación Universitaria* (LOU) dictated transition to a model that included knowledge transfer in universities' core objectives and promoted a large-scale structural reorganization of the Spanish HE system (i.e., adaptation to the Bologna Declaration, the European Higher Education Area and the European Research Area). Further reforms include the enactment in 2009 of the Spanish Strategy University Framework 2010–2015 (*Estrategia Universidad 2015—EU2015*) to encourage the exploitation of university knowledge by industry and universities' commitment to supporting their regions [31], the latter of which is supported by other recent strategies such as the Spanish Science, Technology and Innovation 2013–2020, renewed (2021–2027) to facilitate articulation of R&D policy with the EU's Science and Innovation framework programs such as Horizon Europe.

Universities provide most of the tertiary education available in Spain, and are responsible for a large proportion of its research activity. As of 2021, there are 50 public and 26 private universities. Spanish R&D policy has always prioritized promotion of knowledge transfer and knowledge exchange among universities, public research organizations and society. The National R&D Plans include several instruments to achieve this, and from 1988 to 2011, interface structures (e.g., university-enterprise foundations, technology transfer offices, science parks, etc.) have been in place to promote and catalyze interactions among relevant actors, facilitate innovation and knowledge and technology transfer, and increase firm competitiveness [32]. Therefore, university R&D activities are funded by national R&D plans, the 17 Spanish regional autonomous communities and European funds. Universities receive additional funding from the provision of services to firms, under the LRU 1983 and the LOU. Universities have more freedom to allocate the finance derived from research contracts with industry compared to public funds and can use it to increase the remuneration paid to academics and to provide incentives to increase the number of research contracts between universities and industry.

SI initiatives in universities respond to bottom-up, collaborative and creative changes and societal challenges linked to specific contexts and moments in time (i.e., SI responds to the different dimensions of the crisis in the welfare state) [33]. After the 2008 financial crisis, Spain began to experience dramatic changes in unemployment, budget cuts and cuts in social services. This crisis was a driver of SI which began to achieve some importance in the regional strategies of several Spanish autonomous communities (especially the Basque Country, Andalusia, Catalonia, Asturias, Navarra and Madrid). Support for the development of SI in Spain and its regional strategies depends on the weight of the social economic sector [34]. The main instrument for promoting SI in Spain is the 2013–2020 Innovation Strategy, which was implemented by the Ministry of the Economy and Competitiveness (2013) and involves multisectoral as well as public and private economic actors. Other significant instruments include the 2013–2016 National Action Plan on Social Inclusion. In these plans, SI is understood mostly as a modernization strategy towards the development of a new socio-economic paradigm.

### 2.3. Our Research Approaches

It is clear that different regulatory HE systems create different environments for SI. There is an urgent need for research on the relation between SI and education policies, models of financing, regional and local institutional contexts including tangibles such as regulatory frameworks and intangibles such as networks, embeddedness and soft infrastructure, among other factors. We examine the kind of settings that are most favorable to the emergence of SI in two public universities: The University of Minho (UMinho) in



Braga and Guimarães—Portugal, and the Polytechnic University of Valencia (UPV) in Valencia—Spain.

We selected these two public universities because they were established at around the same time (UMinho in 1973 and UPV in 1968) and are comparable in size. They are considered modern universities, which now offer teaching in both traditional and technical disciplines. Initially, UMinho offered traditional disciplines that were later completed with technical subjects, while the reverse situation applied to UPV. Thus, their origins, strategic approaches, management and organization of knowledge and technology transfer activities differ. We are interested in whether these differences have influenced the establishment of an environment that favors SI. Using multiple methods ensured a triangulation approach to the research. First, a pilot fieldwork method was designed to identify expert interviews. Key experts were identified from the rector team in each university. Second, we gathered information through four online interviews with HE representatives who are experts in the area of SI. For this purpose, we designed a pool of questions to guide the interviews. The questionnaire was validated externally by experts in SI and community–university engagement. It was split into five sections to collect information about: (i) personal identification data; (ii) institutional support services for SI; (iii) main facilitators, potentials and incentives to generate SI at the institutional and governmental levels; (iv) SI barriers in the HEI; and (v) teacher/research agenda (see Appendix A for the interview guide). Expert interviews were conducted and validation led to data collection and analysis from June to October 2020. The interviews were recorded and, on average, lasted for two hours. Respondents' original names were omitted to maintain privacy.

Third, the two team members (the Portuguese and the Spanish ones) analyzed the qualitative data independently and met at intervals to compare results. Analysis of the data was carried out following the interview guide sections. All results were reviewed and discussed as a team at key points during analysis, at times prompting a return to the raw data to resolve ambiguities, until a consensus was reached. Post analysis, the results and construction of future university policies were shared with the respondents for validation. Comparison of the results provide a benchmark for other institutions to measure their performance as is shown in the sections below. Moreover, they are informative for policy and for promoting SI in regional, national and European contexts.

### **3. Current Social Innovation Practices in UMinho and UPV**

#### *3.1. The University of Minho*

UMinho was founded in 1973 at a time of expansion of the HE system in Portugal. It is located in the north of Portugal and has campuses in Braga and Guimarães (Azurém Campus and Couros Campus). The northern region of Portugal has 3.6 million inhabitants, which represents around 35% of the population of Portugal. In 2017, UMinho became a public foundation under private law, with statutory, scientific, pedagogical, cultural, administrative, patrimonial, financial and disciplinary autonomy. The university is structured into schools and institutes which offer various teaching and research courses: Schools of architecture, sciences, health sciences, law, economics and management, engineering, psychology, nursing, and the institutes of social sciences, education and arts and human sciences. The university community includes nearly 20,000 students, and 1200 teachers and about 400 researchers. The organizational structure is flexible and conducive to innovation and interdisciplinary research on emerging topics. UMinho is a research university committed to the production of knowledge—that is, R&D and innovation. It collaborates with the socio-economic environment through joint research and cultural and socio-economic development projects. It focuses strongly on international activities involving both the EU and African countries whose official language is Portuguese and several other countries on different continents.

### Social Innovation Actions and Processes in UMinho

According to the interviews with representatives of UMinho, SI is part of the university's third mission of interactions with society, and is described in the university's strategic plan. The aim is to promote HE and contribute to shaping society based on humanist principles, in which knowledge, creativity and innovation contribute to growth, sustainable development, well-being and solidarity. The interviewees believed that this formalized objective differentiates UMinho from other Portuguese institutions. UMinho also understands its interactions in a unique way to attend to the characteristics and needs of its surrounding community. In this sense, UMinho has been described as "the university without barriers" or "the university without walls", which reflects the attitude of the university to regional needs. The interviewees identified two university–society types of interaction: First, knowledge transfer via jointly developed projects with companies or private nonprofit organizations with the expectation that the knowledge needed for the project will be transferred from UMinho; second, transformation and innovation, which are more than a simple transference effect. The interviewees highlighted that this second type of interaction is more challenging because it presupposes some "decentralization" of normal researcher activity.

There is a general understanding that knowledge must serve the people, the region and the country. For example, in the 1970s, the mass access of children and young people to the education system in Portugal identified a gap in teachers' training. UMinho responded by offering the first teacher training courses in Portugal (5-year graduation courses combining scientific and pedagogical domains, with an internship in the fifth year to become a certified teacher). Another example is the "Salvar Bracara Augusta" project, developed by the Archaeology unit, which aims to preserve and value the local heritage. In the mid-1970s, the city of Braga embarked on a major construction project which resulted in the discovery of valuable buried heritage. These examples show how since UMinho's beginnings, the university has considered the regional context. Therefore, interaction with society is part of the institution. Annual and multiannual activity plans and reports, whether by the rector or by schools and institutes, include interactions with society as an area of their missions.

Other SI projects include the Co-Labs in UMinho. Their aim is to provide scientific training and implement research and innovation agendas of economic and social value. The DTx digital transformation Co-Lab, founded in 2018, is oriented to boosting innovation throughout the product development chain, from the conception of an idea to the final consumer experience. The ProChild Co-Lab is aimed at fighting child poverty and exclusion. These projects were developed with support from the FCT, and respond to identified social needs and problems. They involve social organizations aimed at promoting social justice and equality, especially among the most at-risk individuals.

Other ongoing projects include the cultural units which provide access to cultural goods and experiences and try to develop attitudes and skills in sectors of the population which otherwise would have no access to culture. The "*Casas do Conhecimento*", or houses of knowledge, are spaces that bring together people and resources to boost use of information and communication technologies (ICTs) and promote innovation to contribute to the creation of flexible, interactive and open access learning spaces for all segments of civil society. The "*Biblioteca Lúcio Craveiro da Silva*", the Braga city library, was established through a collaboration between the UMinho and the city council and serves the public. Other spheres of action in the area of SI are the "*Unidades de Interface*", or interface units, that bring together the university and other entities in various fields of industry or health. For instance, the "*Centro Clínico Académico*" is the academic clinical center which aims to create knowledge with immediate application to people's health and well-being. Another example is the association created by the School of Psychology and "*Câmara Guimarães*" to promote psychological interventions for the development and empowerment of people, groups and community, in one of the youngest and poorest regions in Europe.

UMinho does not work according to top-down logic. Some of the above examples correspond to institutional initiatives which depend on the proactivity of the research

groups in UMinho, and all groups work for the good of society. This can be seen in the institutional documents, action plans and activity reports, but the achievement of these depends on the dynamics in different units, subunits, departments and research centers in UMinho.

The interviewees told us that the political and strategic objectives set out in formal documents matter; if an objective is formalized, the university must show evidence of having met the relevant goal. However, the interviewees believed that support structures were needed to allow opportunities to be exploited. What the university has achieved so far is due more to the prevailing culture than the provision of specific funding. The materialization of ideas requires continuous and direct interactions between the university and its community, and a cocreation process in which institutional support is important. Therefore, although there are people in the rector team leading specific actions for society (e.g., houses of knowledge, cultural units, . . . ), it is not possible to identify a person responsible for the management of SI issues. This lack of a person in charge in the rector's teams, who can execute direct actions in the area of SI, is a concern in terms of improving the management of SI.

In terms of the drivers of and barriers to SI, the interviewees considered that HEIs in Portugal are not able to create SI incentive systems. For instance, UMinho is focused on meeting the European Higher Education Area (EHEA) objectives where economic impact is more relevant at the national and institutional policy level and affects the financial decisions associated with the implementation of these policies, relegating social impact to second priority. The interviewees underlined the need, in this framework, for public policies to be more sensitive to social impact. Although there is no capacity for autonomous financial responses, the UMinho has its own capital and has some influence over public policy decisions. Here, the role of the "*Conselho Geral*" (general council and university governing body) is important for promoting SI actions.

The interviewees also emphasized that institutional recognition of SI actions is a sensitive area due to the problems related to identifying indicators to measure SI activities, and the complexities of the different knowledge disciplines and the research units involved. Performance evaluation systems depend on consensus which is difficult to obtain on these issues. Teachers and researchers generally find it easier to evaluate objective things. SI requires some other type of indicators. Since there are no significant and permanent funds to sustain SI actions, the individuals involved in SI are essentially evaluated as teachers and/or researchers.

More work is need in this area. According to our interviewees, more actions should be taken to convince university management of the relevance of the social dimension, and to assign responsibility to all institutional members to achieve social impact. In this context, although UMinho is not detached from its local surrounding, it cannot be characterized as an institution focused primarily on SI. Although SI is part of the third mission and it is well-defined in the university's statutes, this third mission necessarily falls within the research and education axis which does not recognize the relevance of SI.

### 3.2. *The Universitat Politècnica de València*

The origins of UPV date back to 1968 and the creation of the Higher Polytechnic Institute of Valencia. It was only in 1971 that a decree gave the Higher Polytechnic Institute the highest academic ranking of a university. UPV is located in Valencia, on the east coast of Spain, and includes around 30,000 students, 3500 lecturers and researchers, and 1500 administrators, across three campuses in the region of Valencia: Alcoy, Gandia and Valencia.

UPV is organized into nine schools (architecture; agricultural engineering and the environment; building engineering; civil engineering; design engineering; engineering in geodesy, cartography and surveying; industrial engineering; engineering of roads, canals and ports; informatics and telecommunications) and two faculties (Faculty of Business Administration and Management and Faculty of Fine Arts). The faculties are responsible for organizing the teaching for 37 bachelor's degree courses, 74 master's degree courses



and 30 doctoral degree courses. They include 42 departments, 41 research centers and institutes, and 3 affiliated centers (Florida University, Berklee College of Music and EDEM Business School).

UPV is a modern and innovative institution committed to offering high quality structured training to prepare students to contribute to society, to develop relevant and impactful research and to transfer research results both nationally and internationally. Regarding student mobility, UPV is ranked fourth and sixth, respectively, for incoming and outgoing international students at the European level and is also recognized worldwide. In 2017–2018, it received 2023 exchange students, most from European countries but some also from Nepal, Cuba, Sri Lanka, Vietnam, South Korea, Syria, Japan, the US and Georgia.

#### Social Innovation Actions and Processes in UPV

UPV is strongly committed to the third mission of universities, which includes two main institutional social responsibility objectives: Transfer of knowledge generated in the university to promote innovation, creativity and cultural, scientific and technological development and transformation of this knowledge into economic value. According to the interviewees, one proof of UPV's commitment to the third mission is the result obtained in the evaluation ranking for knowledge transfer in the recent Spanish national pilot call-2019: The so-called knowledge transfer "*sexenio*" (six-year term for evaluating teachers' and researchers' activities with direct impact on society, excluding formal teaching and research publications). More than half of UPV's academic staff (teachers and researchers) received positive evaluations from the National Agency for Quality Assessment and Accreditation (ANECA). The UPV ranking was 8 points above the average of the Spanish HE system, suggesting the excellence of UPV research staff in knowledge transfer activities.

Despite the good results of the knowledge transfer "*sexenio*", SI is an unfamiliar concept to both academic and nonacademic staff at UPV. According to the interviewees, SI is a transversal topic, and around 80% of the university community does not know what it is. At the institutional level, there is no specific vice-rectorate service to support SI actions, no person in charge with direct functions in the area of SI, and no specific funding support. The few teachers and working groups who work on SI are very committed.

The collaboration agreement with the "*Jovesolides*" (Youth towards solidarity and development) association in 2017 was aimed at promoting the training of university volunteers to work with people at risk of social exclusion and to encourage SI activity within the university community. The program allowed the involvement of students in work with social entities and the various areas targeted by the "*Jovesolides*" association. The training involved teaching university students how to manage community spaces, promote intergenerational communication and encourage social activism. So far, three "*Jovesolides*" forums have been held, and in 2019 as part of UPV's 50th anniversary celebrations, an SI forum was organized by UPV and was attended by 21 research groups active in SI. It was agreed that UPV would host a second SI forum in 2021 (and every two years thereafter).

The vice-rectorate for social responsibility and cooperation does not include a specific SI team. Several of the teachers and researchers in this vice-rectorate have proposed ideas and are keen to work in SI, but they receive no funding from UPV. Their SI initiatives are supported by other voluntary efforts from researchers who see the value of SI for society. This vice-rectorate is responsible for several areas including gender issues, disadvantaged groups, disabled people, older people, etc. All of these areas are considered important by local government and the city administration, but within UPV they received little recognition. To include SI as a formal academic area would require teaching loads to be reduced and the establishment of corporate-sponsored chair.

The relevance of implementing a six-year parallel award, in addition to the "*sexenio*" (a six-year period of research recognition for quality of publications according to the rule of the ANECA) research, was discussed at the May 2019 SI forum to try to increase the visibility of SI and the importance of SI knowledge and activities. The need for a formal SI network to allow exchanges of information on the activities of different research

groups was also discussed and a request was made for institutional support for SI as an interdisciplinary innovation. Both academic and nonacademic staff are asking for education and training in SI since in the university there is a general lack of understanding about SI. However, teachers are fully preoccupied with course preparation, adaptations to the teaching guide (especially since the introduction of online teaching necessitated by the COVID-19 pandemic), pressure to publish in order to receive the ANECA research grant and the creation of a multidisciplinary innovation network. However, undergraduate and masters students require training in SI in order to write their final dissertations. It was also suggested that SI should be included as one of UPV's formal responsibilities and considered of similar importance to gender equality issues, for instance.

SI also needs to be formally recognized both inside and outside UPV. Calls for support for social issues from NGOs and others are increasing. A strategy is needed to elevate UPV's contribution to work on social issues since currently SI is considered neither particularly prestigious or relevant. The local Valencia government has offered to finance a corporate-sponsored chair for each Valencian university to promote participation of academic staff in SI issues. UPV already has a corporate-sponsored professorship for digital law and disability, and collaborates with the University of Valencia (UV) on digital and gender gap issues. UPV could collaborate with UV's multidisciplinary *POLIBIENESTAR* (research institute on social welfare policy), which is recognized internationally and conducts work on social technology innovations, technical advice and training in social policy. Therefore, it would be interesting to increase the communication among the universities of the region of Valencia.

The Spanish Agency for International Development Cooperation (AECID) publishes calls for project proposals. In 2020, there was funding available for two SI projects but only one proposal was awarded funding (less than EUR 12,000). There are no sources of funding for SI projects at the local government level, which does not encourage project applications.

### 3.3. Integrative and Interpretative Synthesis of SI Practices in UMinho and UPV

Table 1 shows an integrative synthesis of SI practices in both institutions—UMinho and UPV. The overall information suggests that despite some singularities in the way that SI occurs, both institutions share some communalities: The need of funding mechanisms to stimulate SI processes; the need to raise awareness and training around the “content”, “use” and “value” of SI, both among academic staff and outsiders actors; the integration of SI actions with teaching and research activities as a way to not overburden further academic staff, who are essentially evaluated by research productions and teaching activities. These measures would be relevant to mitigate some of the barriers identified—namely, the lack of knowledge and recognition around SI issues.

**Table 1.** Integrative synthesis of Social Innovation (SI) practices.

	Characterization SI	Drivers	Barriers	“Lessons Learned”
UMinho	<ul style="list-style-type: none"> <li>■ Integrated in Strategic plans</li> <li>■ Integrated in the third mission, in interaction with the other two missions (teaching and research)</li> <li>■ Essentially derives from academic staff</li> <li>■ Culture of organizational support to SI initiatives</li> <li>■ No person in charge with direct functions in SI</li> </ul>	<ul style="list-style-type: none"> <li>■ Social influence of UMinho in the region</li> <li>■ Awareness of university management bodies for SI issues</li> <li>■ Organizational culture and tradition that that favors the interaction with society</li> <li>■ Incentive mechanisms for research with social impact</li> <li>■ Proactivity of some academic staff regarding SI</li> </ul>	<ul style="list-style-type: none"> <li>■ Lack of recognition of the relevance of SI issues by academic staff</li> <li>■ Work overload of academic staff</li> <li>■ Lack of funding for SI</li> </ul>	<ul style="list-style-type: none"> <li>■ Importance of organizational culture that favors the SI</li> <li>■ Need to raise awareness of universities management bodies and academic staff around SI issues</li> <li>■ Need of mechanisms of funding for SI</li> </ul>
UPV	<ul style="list-style-type: none"> <li>■ Not integrated in strategic plans</li> <li>■ Integrated in the third mission, interacting with the other two missions (teaching and research)</li> <li>■ Derives essentially from academic staff</li> <li>■ Mainly support for national incentive policies</li> <li>■ No person in charge with direct functions in SI</li> </ul>	<ul style="list-style-type: none"> <li>■ National financial support policies for SI actions</li> <li>■ Local partnerships for SI actions</li> <li>■ Mechanisms of incentive for SI integrated in the evaluation of academic staff</li> <li>■ Proactivity of some academic staff regarding SI</li> </ul>	<ul style="list-style-type: none"> <li>■ Unfamiliarity of the SI concept</li> <li>■ Lack of recognition of the relevance of SI issues</li> <li>■ Work overload of academic staff</li> <li>■ Lack of funding for SI</li> </ul>	<ul style="list-style-type: none"> <li>■ Need of establishment of formal SI networks</li> <li>■ Education and training in SI</li> <li>■ Need of mechanisms of funding for SI</li> </ul>

#### 4. Conclusions

This study examines the status of SI in HEIs using the organizational dimensions and the model proposed by Villa, Arnau, and Cabezas et al. [13]. To better understand SI processes and practices in HEIs, we need to consider different legislative and political frameworks at the regional, national and European levels. While European HE policies can be influential in terms of promoting social engagement, member states interpret and implement these policies in line with their national contexts and needs. National policies are further distilled by HEIs to reflect their interdisciplinarity, the types of activities they undertake, their areas of focus and pedagogical traditions, and their partnerships. This paper presents a case study of two southern European public universities in Portugal (UMinho) and Spain (UPV). The findings highlight the diversity among SI initiatives in both universities; however, the cases exhibit common features.

The UMinho and UPV cases show that formal definition of SI is required for the development of SI training and activities in HEIs. The ambiguity of the SI concept is a concern and has implications for an initiative's development—that is, what the initiative does and why. SI initiatives essentially derive from academic staff who tend to be young, locally oriented and mainly outwardly focused to address social issues beyond the university. However, ambiguity is also an obstacle for outside actors to understand the initiative, including funders, policymakers, and potential participants, creating confusion about what constitutes SI versus conventional projects or programs. This suggests that SI activities lack legitimization and recognition at the formal institutional and governmental levels, which remains an important challenge. Alignment of SI practices with the universities' strategic plans would increase the relevance of SI in the universities, as shown by the evidence of Benneworth and Cunha (2015) [16], and would support broader versions of innovation (in addition to technological innovation), and better understand the way that university knowledge processes can support SI in various ways [9].

The data also confirm the dependence of SI activities on internal HEIs' revenue [8,17,18], which is a major barrier to SI. Since HEIs are only part-funded by the state, they depend on the value and revenue generated by their teaching and research activities. In addition, there is intense pressure for academic institutions to improve their teaching and research quality [16,19], which forces these institutions to invest in what appears to be the most strategic and achievable aims, and the most likely to generate direct tangible returns [8]. This means that SI activities would have to show a worthwhile economic return to reshape incentives within the HEI to support faculty research that responds to real-life challenges. Without support at the institutional level, most researchers have little professional incentive to participate in partnerships or address questions more in line with local contexts. Then, teaching and research mission overload combined with lack of recognition at the university level affect academics' engagement in SI actions.

The historical and social contexts and the established organization culture also seem to influence recognition of SI. The UMinho case shows that the needs of the regional context influence the university's interest in SI, its educational offers and its impact on the organizational culture. SI issues are an explicit part of the UMinho's strategic plans. However, this does not apply to the UPV case. In UPV, SI activities are related to local government initiatives such as the "*Jovesolides*" association, which encourages students to work with social entities, and the organization of two-year SI forums to foster an SI network.

Our paper is a small study of two examples of universities, which are young, dynamic, dominated by science and technology subjects, open for societal engagement, and make efforts to promote SI, and this influences the application of our findings to other kinds of institutions. One might expect that for those more established universities could find it much harder than these young universities to stimulate SI. However, an alternative possibility is that older universities (particularly those founded before the 19th century) had a stronger core in the humanities and social sciences, thereby helping them to regard SI as a more legitimate and valuable university activity. In this framework, more work is required in understanding the shape engagement with SI activities according to HEI characteristics.

This suggests that there is no “one-size-fits-all” since different institutions have different contextual conditions. However, the sharing of SI experiences and practices would promote new SI practices which might help to overcome some of the barriers to SI activities and contribute to a solid theoretical SI framework. While some European policies provide incentives for SI and offer guidelines and funding [3], few are aimed at involving actors at the institutional level. There is little evidence of incentives for recruiting dedicated SI academic staff to support engagement with societal issues. We draw a challenging conclusion: Lack of institutional support and lack of incentives are the main barriers to SI activities in HEIs. Without them, HEIs will have difficulties in delivering the necessary societal challenges demanded by the Agenda 2030 Sustainable Development Goals.

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## Appendix A

Interview Guide for HEI representatives.

Experts in Social Innovation and Community-University Engagement.

### PERSONAL IDENTIFICATION DATA

University:

Position:

Vice-rectorate/Department/Other

Level of Studies Reached:

Year:

Knowledge Area:

Gender: Male/Female

### INSTITUTIONAL SUPPORT SERVICES FOR SOCIAL INNOVATION

What institutional support services for social innovation are you aware of in your institution?

- Financial (calls for proposals for teachers, researchers, students . . . )
- Technical (transfer of methodologies)
- University services and infrastructure (the existence of a specific academic unit to manage social innovation or links with the university community).
- Training
- Dissemination and Culture (e.g., awards, recognitions, etc.)



- Consortiums and agreements with social agents from different socio-economic sectors (gender, immigration, disability, poverty, etc.).
- Other (specify)

#### MAIN FACILITATORS, POTENTIALS AND INCENTIVES TO GENERATE SOCIAL INNOVATION

(Please, indicate the degree of importance for you, both at the institutional and governmental level)

- Programs for fostering the formulation of ideas that respond to social needs
- Funding for early-stage initiatives (pilot tests, prototypes, etc.)
- Funding of mature initiatives for scaling up and replication
- Social innovation measurement initiatives (SI indicators, catalog of SI)
- Fostering a culture of entrepreneurship and social innovation
- Recognition (recruitment, promotion)
- Visibility initiatives (contests, awards, specialized publications)
- Establishment of an incentive system to encourage the development of SI projects.

#### SOCIAL INNOVATION BARRIERS IN YOUR INSTITUTION

(Please, indicate the degree of importance for you)

- Lack of funding for initiatives in their early stages (financing of pilots, prototypes, etc.).
- Lack of funding for mature initiatives to achieve scaling and replication
- Disarticulation of research activities in universities and research centers addressing social problems and population needs.
- Deficient support services for social innovation
- The institutional and public policy framework generates a poor enabling environment
- Little appreciation of the role of communities in solving social problems.
- Low citizen and community participation in social innovation processes.
- Social innovation is not used as a tool for public management.

#### TEACHER/RESEARCH AGENDA

- Do you know if there is a percentage of the internal university budget allocated to SI programs, projects or actions?
- Is there a feedback or university evaluation system on the impact of the SI actions developed in your university?
- Do you consider SI for the promotion of sustainable and equitable society?

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