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Strategic Public Relations and University Entrepreneurship in Present European Context

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Abstract. *Mostly theoretical and following a descriptive - normative logic, with a specific focus on the models of higher education institutions and practices, the present paper addresses the subject of entrepreneurship within higher education area, in relation with current European policy context regarding higher education and university entrepreneurship. It proposes a strategic public relations framework as an integrating effective approach for actual opportunities and challenges that universities deal with presently. Various theoretical approaches and concrete actions emerged, from the complex perspectives of triple helix (organic relationships and interactions between universities, industry and government) to particular aims regarding the development of knowledge-based economy or to the European Union knowledge triangle initiatives (education-research-innovation). The role of universities is expected to be broader and its actions should be characterized by both responsibility and pragmatism within the context of sustainable decision making. However, mostly in practice, there are limitations and criticism regarding a convergent model of entrepreneurial university, even more in relation with issues related to ethics of teaching and research and especially for universities with social and humanistic profiles. In this context, a viable solution could come from the area of public relations, undertaken in their most advanced form: as strategic approach linking decision making processes, stakeholders' needs and interests and assuming long term responsibility. The main aim and originality component of this paper is to propose and support such an approach presented both verbally and through graphical modelling.*

Keywords: *strategic public relations, higher education in the European Union, university entrepreneurship, entrepreneurial university, university public relations.*

Introduction

Education is an important area in relation to societal growth and prosperity, considering not only economic dimensions but also others, from those shaping the social status of the individual and his role in society to those related to psychological factors substantiating personal fulfilment and professional motivation. In terms of objective definite outcomes, the area of higher education is linked to employability based on high qualifications. In extensive terms, higher education (HE) is referred to as an important prerequisite for economic development and competitiveness, reflected on

short and medium terms in live quality indicators and, in a broader perspective, in future development of the individuals and the society as a whole, thus being an important sustainability factor.

In the European Union education is an area only partially covered in terms of public policies. The European Union regulations regarding education focus on specific objectives such as those related to access to and participation in education, employability, and to fostering interdependence between universities and industry to increase innovation and knowledge transfer. Therefore, the issues covered by the European Union policies regarding education are mostly economic and some of them of social type but there is not a general European policy with primary focus on education as such, as it is the prerogative of each member state to regulate for itself. The interdependence relations between universities and industry is seen as a must, analysed in extended national and European studies and, nevertheless, encouraged and supported through different institutional levers. However, less attention and discussion is associated - as an end in itself - to the role of higher education (HE) research and higher education institutions (HEI), beyond the pragmatic objective related to university-industry knowledge transfer. On medium and long term this could attract strategic risks and malpractice, as it could be translated into more emphasis on applied education and research rather than fundamental one and, *in extenso*, on the exclusive instrumental role of HE and a limited pragmatic picture portraying universities only as support entities.

The complex role of HEI includes three main dimensions: teaching, research and the constant contribution to society development in various aspects of it. Industry practitioners are undoubtedly primary audiences for HEI, like students and teachers, followed by government representatives, the community, partners and others. Building and developing relationships with these practitioners substantiates social development not only in the short and medium term (such as employability of university graduates), but also on long term (education of responsible citizens and ethical professionals) and has an impact both on the development of the profession in itself and the development and reputation of the educational institution. But the relations that university have with these stakeholders must be seen in a broader picture. The results and activities within the HEI are connected to economic development indicators and also with social ones. Further, the functioning of these entities cannot be treated outside the particular context in which they activate, which involves opportunities but also limits and sometimes distinctive pressures (be it of economic, social or political nature): regulations, specific policies, demographic coordinates (in the last years rather a limitation more than an opportunity). Thus, universities and faculties are not to be considered as individual entities within a clearly

delimited educational environment, but rather active players operating within a complex, large and especially dynamic social space. From such a perspective, the subject of *university entrepreneurship* delineates as a natural one among core elements for the management of HEI. This is not a new topic, neither in practice nor as academic research. Rather particular attention was given for its conceptual ramification. University entrepreneurship is connected to the model of *entrepreneurial university* but, though sometimes interchangeably used, these are different concepts. University entrepreneurship characterizes an activity, and is seen as a specific managerial approach, a necessity especially in the last decades. The concept of *entrepreneurial university* is more comprehensive and refers to a modern university profile, more advanced than those of university exclusively focused on teaching or research. The model of *entrepreneurial university* reflects the development attributes for HEI as modern entities and it is connected to ever growing needs for the establishment and growth of university-industry relations, either within a two actors partnership or within the larger and more oftenly materialized framework of the *triple helix*. Whatever the case, an exclusively pragmatic approach, with main implications of economic nature, even when it is translated into effective action, remains a limited one. Additional ingredients are necessary in order to complete a truly sustainable development and I think that these elements are more clearly shaped focusing on responsibility, social status and role of HEI, at least equally as on economic outcomes.

Modern public relations express the care of an organization for their own development within the environment they activate. Moreover, strategic public relations (SPR) imply a need not only towards the way the organization is perceived, but also with respect to the role they should properly have and which it is natural for them to assume, above image objectives. SPR translate into actual assumed responsibility, coherent decision making model focused on long term outcomes, commitment and a mandatory and permanent open communication with the environment. As for any other entity, for HEI as well, public relations represent a necessity and, aligned to the natural role and responsibility that universities have, the proper form to be taken into consideration is the one of SPR.

Present paper is mainly of theoretical nature, following a normative approach and emphasizes on SPR as important element that substantiates sustainability objectives and provide consistency for entrepreneurial universities model. Without doubt, SPR could be the working formula through which HEI can successfully meet their specific challenges, given the current context, combining on one hand pragmatic solutions, natural for university entrepreneurship, their need to align with current regulations and to value and exploit the opportunities derived from the specific education

policy area and, on the other hand, responsibility derived from their intrinsic mission.

University entrepreneurship – conceptual perspective and theoretical approaches

The conceptual area shaped at the intersection between the entrepreneurial principles and university strategy is drawn on the basis of elements such as: the responsibility of contributing to society sustainable development, great value attributed to innovation as a core solution for this development and emphasize on the potential of university-industry-government partnerships as strategic entities for society evolution.

The concept of *university entrepreneurship* was introduced by Burton R. Clark (1998), characterizing entrepreneurial university as one adapted to the requirements of the context in which it operates. Thus, placing the academic activity within the functioning scheme characterized by entrepreneurial logic implies assuming some organic relationships between the university and entities considered to be relevant for it. In specialized literature, the subject of entrepreneurship, linked to the work in universities, was particularly addressed over the last 15 years. In their study, *University entrepreneurship: a taxonomy of the literature*, Rothaermel, Agung and Jiang (2007) pointed out - on the basis of an analysis on 173 scientific articles published worldwide between 1981 and 2005 - that the subject of university entrepreneurship was treated with specific interest especially since the late '90s when the annual average number of articles on this topic grew. Also, since 2000, the subject was treated as an important one, as specialized journals published special edition dedicated to it.

As regards the conceptual articulation of the intersection between entrepreneurship and university activities, we can differentiate three distinct areas: *entrepreneurial education*, *academic entrepreneurship* and a general model of *entrepreneurial university*. Although convergent in places, they essentially refer to different aspects in terms of real functioning, implementation logic and results. *Entrepreneurial education* conceptually embodies teaching activities that naturally take place in HEI with the scope of building competences and skills so that present students and future graduates to be able to turn into professionally successful entrepreneurs. Thus, in this context, the conceptual area of the subject is subsumed to the academic offer that universities have, incorporating teaching and training programs for students. *Academic entrepreneurship* portrays university *per se* as an active entity in an environment where entrepreneurial skills are needed not only as an effective but also efficient operating scheme. Thus,

resource management is a fundamental pillar and together with it, an important role is played by strategic vision and perspectives regarding organizational development. Considering specific pressures associated to financial context characteristic for HEI (in Romania but also worldwide, with some contextual particular differences), entrepreneurship appears to be a necessity for universities, added to classical goals of training and research that define them as entities.

The model of *entrepreneurial university* is emerging as a natural one in the context of current realities and it is conceptually articulated based on the role and mission of HEI. According to Foss and Gibson (2015), the concept of *entrepreneurial university* is linked to the ideas found in Slaughter and Leslie's (1997) book, *Academic capitalism*, emphasizing the effort concentrated in universities for finding external funding, additional to the traditional one. From a historical perspective, the models of academic functioning and organization developed in three stages over the years, facing two major changes that influenced the logic of articulating the university strategy. What is considered to be the first generation universities is linked to medieval academic model characterizing first major universities: Bologna, Paris, Sorbona, Oxford or Cambridge. The core of first generation universities model is based on teaching activities, the assumed role of HEI being that of spreading knowledge. Within this framework, universities represent knowledge centres and teachers are vested with the power conferred by science on the bases of their privileged access to it and of their ability to manage and disseminate it. The interest and respect shown towards teachers and especially universities - as temples of knowledge - derive from the need and desire to accede to science, to knowledge which has to be decrypted within a legitimate environment. The first academic revolution took place at the end of the 19th century when the second generation universities emerged. The new model was created in German area by Humboldt University in Berlin. Along with traditional goals of spreading knowledge, a new desideratum was added for university activities: that of creating science. It began to be appreciated and supported the role of the scientist, the researcher who devotes their professional activity to potential knowledge and who contributes to the evolution of society by investigating and disseminating new directions of knowledge. At last, the model of entrepreneurial universities characterizing third generation universities was a result of the second academic revolution. These universities appeared in American area in the mid 20th century. They retrieved the Humboldtian model, focusing on the extensive role that the university can have in society, but redefined the operating logic shaping university activities. Along with teaching (specific to first generation universities) and research (added by the second generation), universities of the third generation emphasized also on the economic function. Pragmatism was therefore integrated throughout the

principles of university activity, as these had to adapt to the requirements, needs and challenges of social and economic framework in which the universities operate. The offer and promise that universities had over the years was therefore different. First generation universities offered general professional training for future specialists with extensive skills and competences preparing for large and comprehensive areas of activity: law, medicine, theology. The second generation universities added to the traditional role of teaching that HEI used to have, a new one, that of preparing and supporting scientists. Finally, the third generation universities have on their promises list the entrepreneurial component, in its ideal form, thus both offering entrepreneurship training (Wissema, 2009) but also functioning for themselves by using entrepreneurial principles.

Conceptually, the model of *entrepreneurial university* integrates both *university entrepreneurship* (as strategic practice) and *entrepreneurial education* (academic offer) (Figure 1). *University entrepreneurship* can include *entrepreneurial education* (Figure 1a), given the situation in which entrepreneurial education (implying training courses for developing entrepreneurial skills and competences) is part of the university development strategy. This has positive outcomes for university both with respect to reputation components and financial terms. But this is not a necessary picture, as there are also universities guiding their activity according to entrepreneurial principles but which do not include in their academic offer specialized courses for training entrepreneurial competences (Figure 1b).

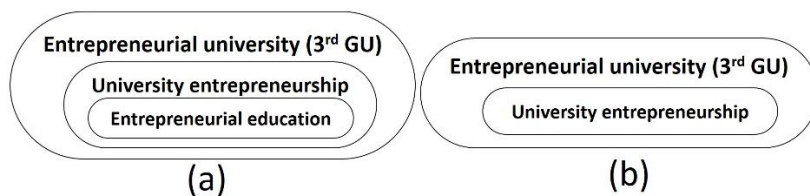


Figure 1. Conceptual articulation of the entrepreneurship theme in relation to university strategy

In reality, the model of *entrepreneurial university* is linked to other models: one of the *triple helix* pillars, *corporate university* model, *technology university* model, project base university, open university and others. The choice for assuming the entrepreneurial model is subsumed to university development strategy and so is the formula through which this is implemented. Certainly, one can identify different explanations regarding these choices by analyzing the context in which that university activates. In some cases this involves the existence of external determinants (regulations, opportunities, national

or international programs, partnerships initiatives, previous development), be it positive or negative ones. Also, the available resources represent important determinants. Oftenly, the most important resources are not the financial but the human and / or relational ones. Naturally, many of them self-generate and favorable situations stimulate even more promising development.

Among the actual manifestations linked to the entrepreneurial university model, the *triple helix* appears to be one of the most fertile, emphasizing the relational requirements that HEI should align to and taking into consideration the constant dynamics characterizing the external environment in which universities operate. The *triple helix* has the advantages of offering a descriptive approach and substantiating the ground for efficient university development strategy. The concept of *triple helix* was introduced by Etzkowitz and Leydesdorff (1995) portraying the interrelationship between university, government and industry. Each of the three has a specific role in society and the logic of there interference has an impact on social development. The structure of the *triple helix* is associated to that of the DNA, by this stressing the importance of functional partnerships between the three types of actors and the long-term implications of the developments specific to each actor individually but also those characterizing the relations between them. In more comprehensive discussions, the structure of the *triple helix* is extended, including society as an additional forth helix (starting from Triple Helix Conference in Copenhagen), though criticism and reserve have been shown, since the difficult conceptual delimitation of „society” makes this perspective rather unclear and less functional. There are even perspectives showing a possible algorithmic extention of the triple helix to N-tuple of helices (Leydesdorff, 2011).

Within the *triple helix* model, *innovation* is a central topic and a binder between the three structural components (government, university and business). This is because innovation substantiates the economic stake of university-industry partnership and the purposefulness of successful university entrepreneurship in relation to *economic development* of the society in which HEI activate. As pointed out by Rieu (2014), innovation is a complex institutional process, emphasizing the effects of the natural interactions within the triple helix framework. However, it is mistakenly expected to work as a magic wand to solve all problems, but should rather be seen as a real opportunity to intensify collective efforts and interests, gathering and potentiating forces and results for long term developments. The actual meaning of innovation goes beyond the traditional conceptualisation of generating new products and ideas and focuses on the purpose of this process which must be meaningful with respect to the

development of a better future society. The new approach regarding innovation still values the importance of improving products, services, processes or organisational strategies, but to all these it adds other focus, the more important as it is related to human and relational components. This is the extended engagement of each actor (individual or institutional) towards creating a better, more prosperous future. Beyond the creation of new, present approach of innovation emphasizes on knowledge sharing, meaning spreading information and results so that they can be used on a larger scale (Tarnawska & Mavroeidis, 2015). Considering actual developments in technology, knowledge sharing and collective knowledge production is not only possible but also rather facile. Among innovation soft skills, there are: creative capacities, communication, teamworking and problem solving. Thus delineates an increasingly clear new role and responsibility of HEI, that of stimulating and developing these soft skills supporting innovation.

In terms of public policies, the role of universities as active payers in society and the subject of university entrepreneurship in particular integrates naturally in the broader discussion and desideratum of developing a *knowledge based economy*. As shown by Tarnawska and Mavroeidis (2015), knowledge based economies have the premises for almost unlimited opportunities for growth, as they manage to produce more and better with less traditional resources. For policy formulation and analysis one must take into account that an important advantage of knowledge is that of being a non rival good (it can be used at the same time by as many people without diminishing) and partially excludable good (assuming property rights it can be accessed without taxation). In the context of the discussions regarding quality of labor but also quality of life and, in this respect, universities' outputs towards quality associated objectives, we must stress on the fact that human capital, translated into knowledge and skills, represent important premise for individual and societal growth. By generating and disseminating knowledge and information HEI have a fundamental role in developing quality human capital through either education or research. Nowadays university-industry partnerships are a necessity in order to potentiate both objectives. Positive real outcomes of university-business relations are to be considered a responsibility of universities equally as of business and governmental actors, on the path to achieving effective knowledge based economy with benefits for each and every actor. Though the available and expected means and tools are different for each part, such as their role, the goal is common and the responsibility they assume should reflect this.

Within the general picture portraying entrepreneurial university model in the context of developing a sustainable society through knowledge based economy, HEI appear to be themselves important social actors, with roles and responsibilities that go beyond their immediate operational objectives.

Assumed exclusively, neither training good future professionals, nor quality research can presently be considered sufficient university activities. The role that universities have in society is more complex and involves their power, legitimacy and responsibility to contribute to society social and economic development. In this context, social responsibility is yet another important intrinsic subject in relation to university functioning and decision making logic. University strategy should not be drawn without taking into consideration present societal issues but especially potential future ones. For both, HEI have the responsibility to be proactive and come with solutions or even prevention plans. Thus, clearly, HE institutions cannot activate as lonely actors. They must search for inspired and responsible schemes to relate to relevant stakeholders, in order to accomplish their assumed and socially attributed proper mission.

The European Union policy framework regarding higher education and university entrepreneurship

At the level of the European Union, HE is formally considered an important aspect but it is not referred to within a unitary framework. There is not a unitary approach in terms of public policies focusing on education as an end in itself. HE objectives are rather driven from other areas of interest, mainly economical ones. When it comes to public policies in HE, European Union provisions stipulate that “national governments are responsible for their education and training systems and individual universities organise their own curricula”. It is assumed, however, that “the challenges facing HE are similar across the European Union and there are clear advantages in working together”. (European Commission, 2016). This is the context that substantiates the support offered through European Union institutions and programmes for cooperation, exchange of experience, communication and building relations and networks in the field of education.

Analysing the European Union programs, reports and activities regarding HE, the specific focus can be identified synthetically in relation with the following: *equal access to education* and rise of *participation rate in higher education*, with specific emphasis on issues associated to disadvantaged or vulnerable groups; *research and innovation* (stimulating university-industry communication and relationships and supporting technological and knowledge transfer); *quality in education* linked mainly to the final result of the educational process - good qualification (skilled human capital prepared for the labour market); *job oriented education*; *qualification framework*, as formal necessity linked to *employability*, not only at national level but with emphasis on free access to the labour market within any country of the European Union; and *economic growth* as a general objective interconnected

with the activities of HEI. Therefore, we can identify one specific goal of *social* type and several concerns linking educational objectives with *economic* aims. The emphasis on education as an end in itself or detailing extensively the tertiary educational process as an activity with specific importance, which can be improved and boosted for pure educative objectives are not to be found in as actual priority independent directions in European Union official documents. In terms of autonomy this is undoubtedly a good approach, as each nation state has the power, right and responsibility to decide for itself. But, on the other hand, it is interconnected to the fact that there lacks a unitary coherent and integrated European public policy regarding HE with main and prior focus on education as such and not on other collateral objectives (economic growth in general, employability and technology transfer in particular) driven from other fields of interest (especially economic ones). The fact that each Member State has its own priorities, resources and limitations is reflected in the discrepancy between policies regarding education and especially in their particular results.

As regards the institutional framework and activities carried out at the level of European Union, the main entity in charge for activities, programs and measures is the *Directorate General for Education and Culture (DG EAC)*, branch of the European Commission, one of the 33 Directorate Generals. DG EAC is directly responsible in front of the dedicated structures within the European Parliament, explicitly Committee for Education and Culture. The prerogatives of DG EAC include topics related to: education, training, youth, sport, languages and culture. Regarding HE, the main actions and efforts at the level of DG EAC can be summarized as follows: encouraging and supporting mobility as good premise for personal and professional development (Erasmus+); offering support for cooperation and policy dialogue and facilitating university-industry (and sometimes public authorities) interaction and collaboration (Erasmus +, Knowledge Alliances, University-Business Forums – held almost annually since 2008; offering objection evaluation and recommendations on the basis of: (1) conducting official studies and generating official statistics regarding de facto state in education, presented in parallel with specific goals and specific objectives and disseminating these materials (translated into national language) to member states officials and to all interested European Union citizens (the most important of these studies are the *Education & Training Monitors* published annually and the *Country Reports*), (2) financing studies and analysis concerning specific issues in education conducted by other parties (e.g. *Measuring the impact of university-business cooperation* prepared by Cardiff University, in association with Newcastle University and Imperial Consultant for DG EAC or *The State of European University-Business Cooperation - Study on the cooperation between Higher Education Institutions and public and private organisations in Europe* conducted by the Science-to-

Business Marketing Research Centre in Münster, Germany for DG EAC) or (3) developing and supporting integrated tools for evaluating HE offers (such as *U-Multirank*, a multidimensional tool for ranking universities and colleges using multiple criteria including: research, teaching and learning, international orientation, knowledge transfer and regional engagement).

As regards the strategic framework of public policies on HE in the European Union, the first pillars were those established since the Bologna Declaration (1999). According to this, HE is divided into three study cycles with specific duration: undergraduate (3-4 years), master (1-2 years) and PhD (3-4 years). The aim of the Bologna system was to assure quality in HE and easier recognition of qualifications and periods of study, for enhanced compatibility between different educational systems. Also, the credit system supported student mobility, which is seen as an important prerequisite for providing equal opportunities in education, increasing competences gained through education and integrating more easily on the international labor market. Together with the development of the Bologna framework over the years, additional states joined the original signatories, presently reaching a number of 49, including also countries outside the European Union. In 2010, in the context of Bologna decade anniversary, *European Higher Education Area* (EHEA) was established, aimed at enhancing the compatibility, comparability and coherence of HE systems in Europe (European Higher Education Area, 2015).

The implementation of the Bologna process has the support and involvement of 8 consultative members, including UNESCO, the European University Association, European Students' Union and the European Association for Quality Assurance in Higher Education (European Higher Education Area, 2015). In order to endorse highly efficacy, since the launching of the Bologna Process in 1999 it was also set an agenda for *Bologna meetings of the relevant ministers* to be held once in every 3 years to monitor the evolution of the process and set up future directions (though in reality the frequency was even higher). Until now nine meetings took place in major European university cities and each meeting enriched the process with new issues and added new members (<http://www.ehea.info/article-details.aspx?ArticleId=3>). The ministerial meeting in 2012 was held in Bucharest and its focus was on the challenges of the recent economic crisis and the stake was to draw new lines for generating growth and increasing employment (European Higher Education Area, 2012). Also, since 2009, alongside the ministerial meetings there were also organized *Fora* associated to the implementation of the Bologna Process. The Fora were attended by representatives from European Area for Higher Education member states and from other countries as well, including institutional officials but also other stakeholders, NGO representatives included. The fourth Forum was held

in May 2015 in Armenia, together with the 9th meeting of education ministers from EHEA member states.

Besides Bologna Strategy and starting from it, European Union drew up also other important strategic frameworks regarding HE. These are converging with the principles assumed within the meetings dedicated to the Bologna process and those of European Higher Education Area. European *Lisbon Strategy*, launched in 2000 for a 10 years period, focused on economic competitiveness and education targets were also subsumed to this purpose. The aim of Lisbon Strategy was to adjust european policies for employment and economic growth towards making the European Union the most competitive and dynamic knowledge based economy. To achieve this objective, HE was considered a key factor. Adopted by the Extraordinary European Council in Lisbon on 23-24 March 2000 and renewed by the European Council in Brussels on 22-23 March 2005, the Lisbon Strategy had an optimistic approach and a series of strategic complex and consistent measures were implemented. However, most of the objectives of the Lisbon Strategy have not been fulfilled. At the end of the decade assumed for the Lisbon Strategy, new coordinates were drawn regarding new strategic plan for the next years, emphasizing the crucial role of education and training in the context of present changes and challenges.

In 2010, *Europe 2020 Strategy* was launched for smart, sustainable and inclusive growth. Its main objective was to improve European competitiveness, while preserving its model of social market economy and significantly increasing the efficiency as regards the usage of its resources. Under this strategy, education is one of five major targets alongside employment, research and innovation, climate and energy and combating poverty respectively (European Commission, 2010a). As part of the Europe 2020 Strategy, education an training objectives until the year 2020 (*ET 2020*) focus on: promoting young people mobility, increasing the rate of people with HE from 31% to at least 40%, enhancing research performance, promoting innovation and knowledge transfer throughout the Union, promoting partnerships based on knowledge and strengthen links between education, business, research and innovation and promoting entrepreneurship, stimulating a favorable strategic cooperation in education and training involving all stakeholders. In this context, HE is clearly considered an important direction of the EU 2020 Strategy, directly related to employment, being *in extenso* an important lever for economic growth.

At last, focused on the subject of education but linked to economic and social goals, the European Commission launched in 2012 yet another initiative: *Rethinking education - strategy for investment in skills for better socio-economic outcomes*. Its starting point was the issue of disparities in

unemployment rates on the one hand (23% at EU level) and, on the other hand, the impossibility to find specialized workforce (2 million vacancies due to inability to find people with appropriate skills). This was linked to the fact that 3 million Europeans (around 25% of adults) have a low education level, less than 9% of adults participating in lifelong learning (compared with the EU target 15%), and the literacy rate is still a problem. Identifying and analyzing these problems and improvement areas was facilitated in the context of data provided by the *Education and Training Monitor*, the Commission's annual report on the situation in member states, conducted starting 2012. In this light, it appeared necessary to draft a strategic plan with the aim to reform education systems in terms of quality, accessibility and financing as to suit changes and labor market requirements. Among the provisions of Rethinking Education Strategy there are: developing entrepreneurial and IT skills (considered as either transverse and / or fundamental competencies); developing foreign languages abilities; recognition of qualifications and competences (including those acquired outside the formal systems of education and training); increasing mobility (in the context of previous objective); capitalizing the opportunities offered by technology, increasing access to education, teachers' skills and teaching quality and, as a critical goal, stimulating partnerships between educational institutions and businesses, boosting innovation and bringing added value for all parties (European Commission, 2012a). The first step accomplished within the context of Rethinking Education Strategy was the preparation of *country analysis* (European Commission, 2012b). The next directions focus on: fostering partnerships linking education and training, research and industry (within the *knowledge triangles*), opening up opportunities in education (through *Horizon 2020* - general framework for research and innovation - and *Erasmus + Program* - framework for mobility, also fostering the ties between university and industry in the interest of students) and the establishment of an *European Area of Skills and Qualifications*.

As it comes to university entrepreneurship specifically, there is not a dedicated tool or action at the level of the European Union, but particular objectives - either directly linked to entrepreneurship in education or to subjects related to it (innovation, enhancing knowledge management and quality research or university-industry partnerships) - are integrated within other major frameworks of programs under the responsibility of Directorate General for Education and Culture and Directorate General for Enterprise and Industry respectively.

The most important EU guidelines and efforts are to be found in the *Rethinking Education* communication and the *Entrepreneurship2020 Action Plan*, adding to these a range of reports and guides on the subject. Modernisation of Europe's universities involving their interlinking roles of

education, research and innovation is part of a wider mode towards an increasingly global and knowledge based economy (European Commission, 2006). Developing a functional *knowledge based economy* is an important aim of the European Union, ever since Lisbon Treaty. This implies the efficient management of knowledge and information (production, usage and distribution). Innovation is the key element for knowledge economy, in order to raise competitiveness and sustainability and the operational objective is to bring innovation closer to economic developments not only within particular rather small steps but by integrating different efforts, teams and outcomes. In this respect, at the level of the European Union the *knowledge triangles* (education – research – innovation) are to be found as top-down facilitating frameworks. They were shaped as policy solutions, enhancing effective university-industry relations, with the scope of raising investment efficiency and finding good paths towards knowledge based economy. Though research and innovation already have a tradition in sharing common goals, tools and operating agenda, the third element of the present knowledge triangles – education – has been treated until recently as a separate or even independent subject. Knowledge triangle are policy drives bringing the three of them together and integrating especially education within a working formula, in order to create a functioning framework.

Knowledge triangle frameworks are translated at the European level into the efforts and actions associated to: *European Institute of Innovation and Technology* and its *Knowledge and Innovation Communities*, *Marie Skłodowska-Curie actions* and *university-business cooperation* specific frameworks. European Institute of Innovation and Technology (EIT) is an independent body of the European Union with the aim to stimulate innovation and entrepreneurship across Europe. Set up in 2008 (and functioning starting 2010) EIT is part of *Horizon 2020* EU Framework Programme for Research and Innovation. Its role is to contribute to the goals of the EU2020 Strategy and its flagship initiatives, in particular the Innovation Union, the Agenda for New Skills and Jobs and the Digital Agenda. The EIT, based in Budapest, Hungary, works as an efficient collaborative structure bringing together 105 HEI, 75 research centres, 273 companies, 56 cities, regions and NGOs to form dynamic cross-border partnerships. Within the EIT specific Knowledge and Innovation Communities (KICs) were created, with the objective to develop and test new models of how innovation is approached, managed, financed, and delivered in Europe. The KICs working within the EIT are focused on some of the most important development areas: climate change, sustainable energy and information and communication technologies. Marie Skłodowska-Curie Research Fellowship Programme represents a specific direction for action at the level of the European Union that stimulates useful results within the knowledge triangle. Within the MSC actions, researchers at all stages of their careers, from all

countries and working across all disciplines can benefit from European funding for academic research study or training and experience gain abroad and in the private sector (European Commission, 2016b). In order to tighten university-business cooperation at the level of the European Union some specific concrete opportunities are being offered, besides studies and reports and policy frameworks (be it specific or general ones). Among these are the *Knowledge Alliances* and the *University-Business Forums*. *Knowledge Alliances* which have the role to support the growth of deeper and more efficient partnership models between universities and companies, establishing good practices, real examples and starting points for functional extensive future cooperation. To this end, EU funds university-business partnerships with expected positive outcome in: university curricula, entrepreneurship practices, teaching and learning methods. Erasmus + is the main tool used for the materialization of Knowledge Alliances. *University-Business Forum* is an early event (starting 2008) organized in different European cities with the effort of European Union, offering a good opportunity for HEI, companies, business associations, intermediaries, and public authorities to meet, discuss and establish collaborative networks.

With the available tools, frameworks and opportunities offered by the European Union (*Erasmus +*, *Horizon 2020*, *Marie Skłodowska-Curie* actions and grants supporting research, *Knowledge and Innovation Communities* – within the European Institute for Knowledge and Innovation, *University-Business Forums*) and taking into account the reports and statistics conducted by EU agencies, is the responsibility of Member States to take concrete steps and adopt appropriate public policies, according to the priorities identified within the context of the realities characterizing their educational system. Universities must shape their strategies and actions according to this context (Figure 2).

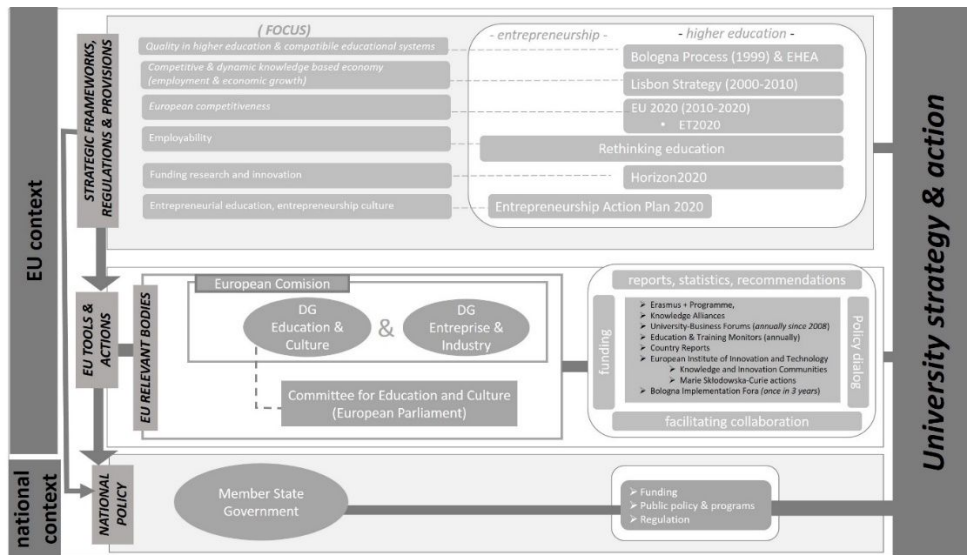


Figure 2. European framework for higher education and university entrepreneurship

Strategic public relations - key element for higher education institutions nowadays

Specific lenses of the approach that outlines this paper are those coming from the area of public relations particularly from the most recent guidelines in this field: *relational paradigm*, grounded on *open systems model* of public relations. The strategic relationship that an organization establishes with its important publics is fundamental for the functioning and effectiveness of its results. These must be seen in the context of constant exchanges between the organization and its environment (open systems specificity), considering the results on both medium and long term. In this context, to consider the given context and organizational responsibility are mandatory requirements in measuring the outcome. Further, these are to be reflected in the reputation and future evolution of the organization. For universities also, SPR could be a key element for long term development, if used with professionalism. Given the complex role of HEI but also the increasingly complex challenges facing them, SPR can prove to be more valuable than ever before.

According to Public Relations Society Association definition in 2012, public relations represent a “strategic communication process that builds mutually beneficial relationships between organizations and their publics” (Public Relations Society of America, 2015). Professional modern public relations are intrinsically interconnected to management, hence deriving their strategic attribute. Public relations represent a management function (generally

accepted modern approach, emphasized ever since Harlow published his comprehensive definition in 1984). This means that public relations have an important role in shaping strategic decisions and direction of action for organisations, thus contributing to building and maintaining its good reputation. As referred to in many of the important definitions of public relations, not only that they work as a management function, but also imply management activities themselves. Classical perspective offered by Grunig and Hunt (1984) define public relations as the “management of communication” that the organization must have with its publics, Ledingham and Bruning (1998) introduced the relational paradigm emphasizing on the role of public relations as “relationship management” and, further on, public relations were closely associated to reputation management (Hutton, Goodman, Alexander & Genest, 2001; Doorley & Garcia, 2011). Whatever the approach, the specificity of public relations as a management function is valid only considering two main interdependent requirements: (1) active participation of public relations specialists in important decision making process (in this respect a useful indicator can also be the organizational chart which highlights the attributes of public relations team) and (2) assuming responsible decisions, in accordance with the interests of the relevant publics and with long term objectives considered to be good for society as a whole. Only if these two criteria are met, the communication instrumented by the public relations team can be a strategic and responsible one.

Strategic public relations, seen within an ontological comparative approach as different from tactical ones, are translated into reputation outcomes but, more important, have responsibility as core element. Responsibility is to be found not only in communication – *post factum* activity - but also in decision making – *a priori* process. In this context, although reputation remains the stake of public relations activity, the real aim is focused on sustainability and the role the organization has in society. The real management role characterizing public relations assumes that the organizations activate within an open system, which requires a proactive behaviour towards the external environment but also within the organization internal structure. According to open systems approach (Cutlip, 2000), effective public relations are based on bidirectional communication, anticipation and constant interactions with relevant publics.

Relational paradigm (Ledingham & Bruning, 2000), most influential nowadays in public relations, reinforces the role of the public(s) for public relations activities and emphasizes the importance of building responsible relations rather than of focusing on image outcomes. The role of public relations is linked to the role and status of the organization within its natural present and future environment. In this context, the picture of the organization as a solitary player is not a viable option but a premise of failure.

Organizations must pay attention to the context in which they operate and to the entities with which they interact, at least in the same way they focus on their operational objectives, mostly characterized by pragmatism. Their interactions must be assumed not only as simple short term exchanges, but as real relations that must be cultivated, nurtured and valued. Good relations in their turn are not an option but a must and present studies in public relations focus on useful indicators to measure relations. The shaping of valuable measurement tools and methods represent an important stage in the development of public relations profession. Starting with Barcelona Principles launched in 2009 and published in 2010, proper differentiation is considered between outcomes, outputs and outtakes and the real results of SPR activity are taken into consideration in the form of outcomes. Indicators for measuring public relations outcomes are being searched for and same is the case of relations measurement, moreover as this is not a new subject (Hon & Grunig, 1999; Ledingham & Bruning, 1998; Moon & Rhee, 2013).

SPR apply for: efficient planning, integrated constant evaluation and research - as prerequisites of each action and professional well trained and ethic-focused team. SPR generate sustainable outcomes by considering a balanced partnership between the organization and its publics on the logic of two way symmetrical communication model and assuming organizational activity within a complex, opened and constantly changing environment. These call for constant measurement and evaluation of organizational direction and integrated decision-making process and communication.

The model of entrepreneurial university represents an inviting framework for the materialization of SPR. The conergence of the two subjects portrays universities as open systems functioning within a dynamic environment and stresses upon the importance of developing effective partnerships relations with relevant stakeholders. Further, it asks for middle and long term responsibility in all aspects regarding the activities within HEI. Given the context in which universities activate, especially nowadays, their decision making process cannot be considered as being really strategic unless assuming the logic of the open systems. External factors must be constantly analysed and taken into consideration, as the challenges, risks and expectations associated to activities within universities and to HE in general are more dynamic and could have greater impact. In the information society and considering globalisation, the logic of education changed and the expected deliverables (either outputs, outtakes or outcomes) of HEI have been shaped accordingly. Thus, adaptation is the necessary choice for universities in order to remain competitive and relevant actors. Furthermore, if they are to aim at success and at enjoying a privileged position, universities should not consider adapting to change, but creating it. Either way, the means to any of this consist in embracing a partnership model in university strategic

decision making, meaning constant and efficient interactions with relevant stakeholders.

For HEI, prior stakeholders are: teachers, students and industry professionals. Without each of these, university cannot complete its operational objective nor, much less, its strategic ones. Governmental actors add to this selective prior mapping. While the need to consider teachers and students as relevant stakeholders seems a natural one, not the same is the case when it comes to industry professionals. This is not only a matter of university orientation, but an important strategic decision with long term implication for all parts involved in HE and for society. The rate of university-industry partnership is still much smaller than expected and, even so, many of the partnerships do not necessarily develop organically but contextually, assuming an instrumental role, and are usually time limited. All these should be taken into consideration as negative indicators in terms of effective university strategic decision making within the projections on knowledge based economy. The determinant context in which many of the university-industry partnerships develop is governmentally stimulated. The triple helix is a premise for sustainable relations. Presently, in most cases, the government is the prior pillar. Even assuming this pattern, the resulted relations and outcomes are salutary but the scheme is scarce. Triple helix model could work with truly valuable outcomes only with the efforts of all parts involved in the process, universities included.

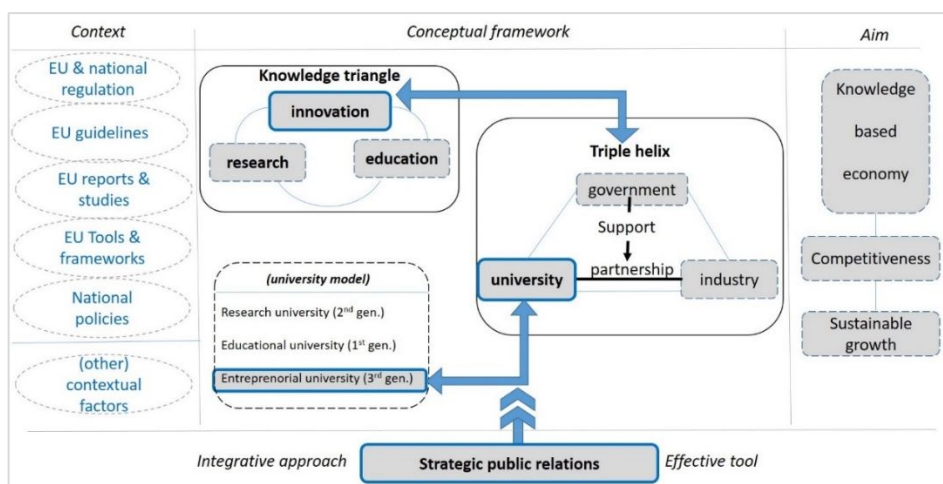


Figure 3. Synthetic scheme regarding strategic public relations as integrative approach and effective tool for actual entrepreneurial universities

Considering all these (opportunities and limitations alike), SPR may prove to be an effective option for nowadays entrepreneurial universities offering an integrated approach and specific tools for bringing together academic

traditional values, solutions for pragmatic objectives within the context of present constant challenges that universities must face and adapt to and directions for institutional particular operational objectives. Figure 3 synthesize the value of SPR in potentiating the role of entrepreneurial universities within a viable triple helix resulting in sustainable university-industry partnerships. Within this framework, innovation is considered a core element for both triple helix model and for knowledge triangle constructs. SPR can be a key tool for universities in achieving their proper role as active players in their environment – shaped by national and European policy premises and by other contextual factors – on the way to contributing to the development of a competitive economy, knowledge based and characterized by sustainable growth.

The means specific for SPR activities are based on: complex analysis of the environment, mapping stakeholders and their particular needs and interests and considering responsible decision making as core principle sustainable development. In the context of SPR, the dynamics of the environment do not seem to be surprising but natural, as the logic of SPR is based on anticipation, if determination is not possible. Stakeholder mapping is a constant concern, as stakeholders are natural partners. Responsibility is the central value and thus pragmatic objectives – natural in the context of entrepreneurship - are endowed with broader meanings and decision making process is tested in relation to a wider expectations spectrum.

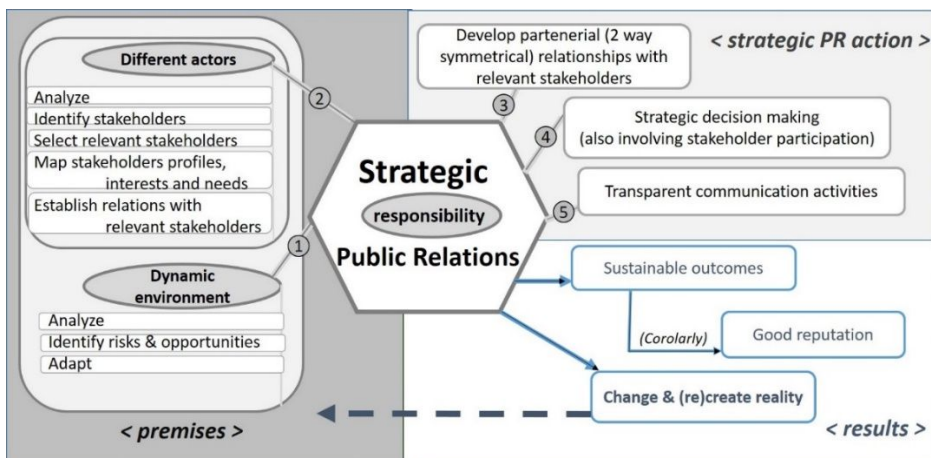


Figure 4. The functioning logic of strategic public relations with their main activities and results

Figure 4 presents synthetically the functioning logic of SPR, including specific activities and results. The activities are divided into two cathegories disposed in the picture clockwise. On the left there are activities representing first-

stage efforts (ment to provide SPR premises) and on the top right there are actual strategic public relations activities. The premises are associated to the effective understanding of the environment in which the organization (universities in this case) operate, given the open system approach. This environment is expectect to be characterized by constant changes and challenges for the university. As particular component of this environment to be understood there are specific actors with whom the university has (or should develop) relations. The actual SPR actions are based on the preliminary actions associated to the premises. They involve relation management, partenerial decision making and communication management. The results of SPR go beyond image and reputation management. These are corolarly effects but the main outcome is linked to sustainable development in the benefit of the organization and its relevant stakeholders. The most successfull SPR activities translate into fundamental changes able to redefine reality. In this case the organization does not only adapt to the environment but it is a truly active player in creating it.

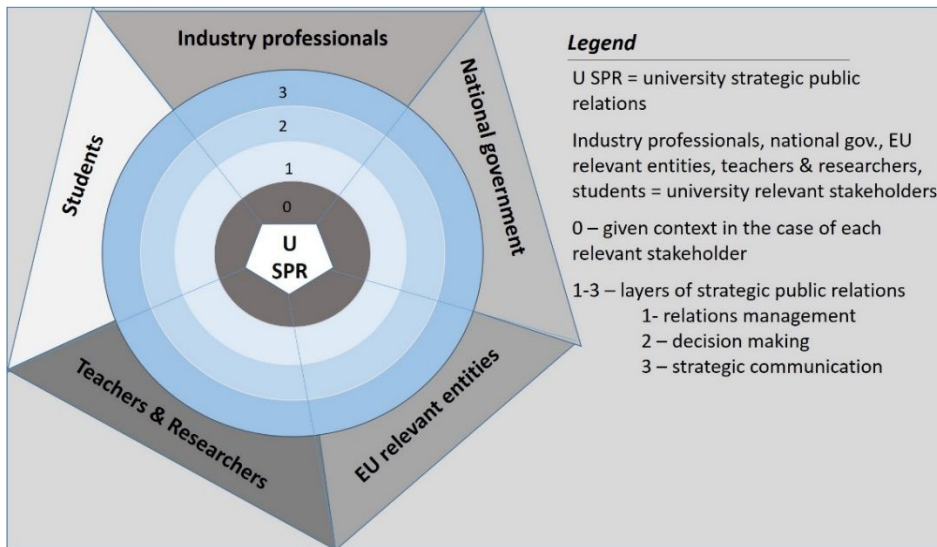


Figure 5. Layers of university strategic public relations towards its main stakeholders

In terms of concrete SPR actions for entrepreneurial universities, a concrete integrated perspective is shown in Figure 5 and Table 1 respectively. Figure 5 illustrates the main stakeholders that should be taken into consideration as regards entrepreneurial university SPR: industry relevant partners, institutional actors (European Union relevant bodies and national governmental entities) and internal relevant publics (teachers and researchers and students). For each of these, strategic public relations imply understanding their particular characteristics and the way they influence the

university environment (layer 0). Afterwards, actual SPR options can materialize, conceptually divided within three types of activity areas and graphically illustrated by three different layers regarding: (1) relation management, (2) decision making and (3) communication management. In *table 1* main activities for each layer are presented. Starting from the premises characterising each stakeholder category, the university can act differently and have specific types of initiatives and offers towards these stakeholders.

Table 1. Layers and activities of university strategic public relations towards its main stakeholders

	Layers of USPR / Stakeholders	Industry relevant partners	EU relevant entities	National government	Teachers & Researchers	Students
<i>premises to consider</i>	0 - Context layer	Resources, interests, innovation capital & availability	Policy guidelines & frameworks, general regulation, studies & reports, support, activities opportunities	Public policies, regulation, studies, reports, evaluation, support, funding, opportunities	Interests, competences, potential,	Demographic premises, academic demand & interests, previous skills & competences, potential
<i>university actions areas</i>	(1) relations management	Partnerships (innovation initiatives et al.), funding opportunities, transfer of knowledge	Receive support & guidance, apply to opportunities, analysis and studies	Adjust to formal regulations, receive fundamental funding, analysis and studies	Teaching & research environment & models	Academic offer (also including entrepreneurial skills), learning environment & models
	(2) decision making	Co-decision (curricula, strategic directions, society initiatives), common investments	Policy initiatives (universities as active citizens)		Motivate and co-decide university directions (stakeholder participation)	

	(3) communicati on management	Constant interaction, common messages	Policy dialog	Academic publications & events	University marketing, teaching methodology, university- student (particularly university- alumni) communicati on networks
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Bringing the entrepreneurial components in relation to specific university activities represent an important step further in the development of HEI. Yet, there is an important risk that, by doing so, pragmatic principles, specific for entrepreneurship, might change the core values and traditional roles that universities have in society. In order to address this challenge positively, pragmatic values need to be integrated mindfully within university strategic management but without replacing traditional outlines. It is undoubtedly an intricate task to put together operational directions, solutions for external challenges, rapid efficient adjustments according to dedicated policies and regulations and inspired approaches for partnership opportunities, to name only a few of the issues the universities must face and find unitary solutions to. Within this picture, SPR could be an efficient binder, more than a tool but rather an organizational successful approach in the benefit of universities, their stakeholders and society as a whole.

Conclusion

At the level of the European Union, the area of education is a poorly regulated one, such as tourism, culture and others. The European Union only offers support and coordination. Many of the EU's efforts in education translate into statistics, reports, descriptive and evaluative studies and recommendations, along with programs and opportunities for education and research framework (such as Erasmus + and Horizon 2020). Many of the objectives set at EU level in the area of education do not have an end directed towards educational per se, but are rather related to specific targets other areas, namely economic and / or social, given the goals related to: increase competences for an increase in effective labor market integration, innovation and development or social justice. Although there are strategic frameworks for action (such as prior Bologna Strategy for modernizing higher education or ET 2020 Strategy), we can not talk of a policy unity on HE across the European Union. It is the competence and responsibility of member states to establish their own decisions, legal frameworks and courses of action. Given

this context, HEI appear to be entities expected to align their decisions within the framework of national regulation on one hand but also within the limits and under the pressure coming from a global labour market and ever increasingly changing students' profile and needs. Again, the subject of entrepreneurship in relation to HE is not addressed in terms of specially dedicated public policies or actions but it can be found in other policy directions and frameworks met to support university-industry partnerships under the comprehensive aim of developing a more competitive economy.

Corolarly to considering the actual frameworks offered through European general regulations and actions, it is relevant and necessary to point out yet another aspect, although rather philosophical in its nature and not assumed as the core of the present approach: the specificity and nature of HE. In the context of public policy analysis and policy strategy, I consider this to be a priority issue with important practical and pragmatic implications. Ever since the first ministerial meeting for the Bologna Process in Prague, it was assumed that HE should be considered a *public good* and is and will remain a public responsibility. This is an extremely important fact that offers a clear formal view on how HE should be related to and, derivatively, on financing HEI and, furthermore, on the role of the government in general towards HE system. Thus, if we refer to European regulations of 2001, HE was explicitly regarded in relation to government public accountability. But following a fundamental analysis on the comparison between official formal provisions and empirical reality, one can notice that considerable differences emerge. One prior issue is the real financial support provided by the government for education in general and for HE particularly. Onward, another issue is that related to costs associated to education (housing, transportation, material resources necessary for study), beyond those characterizing exclusively teaching services within universities (teacher salaries, financing logistics and facilities for university activities et al.). Analysing the low participation rate in HE and the reasons for that, we find that in reality, in the case of HE services, the *public good* attribute is materialized only to one point. In this context, beyond the policies regarding curricula, diploma equivalence and preparing students for the labour market, a separate discussion, and further, a valuable path to effective public policy on HE should focus on the value and opportunities for finding real financial support for HE. As a prerequisite of quality education, material resources cannot be overlooked. Funding is a necessity and, in many cases, the premises of both success and limitation in university activity and student educational opportunities. Clearly, the government does not have the resources to provide all the necessities in HE. The situation as it is could not lead to more effective realities. Still, the role of the government as an intermediary that offers not necessarily complete financial support but rather particular aid and guidance is more realistic and leads to better and more responsible results on middle and long term. More

important than offering complete funding, the government can support the financial opportunities for HE, endorsing the development of a new educational environment and of new university management practices. This is half of the way. Some consistent efforts must be made equally by universities. The approach of the *triple helix* and *university-industry partnerships* converge organically with the opportunities and challenges mentioned above. Thus it is naturally integrated the specificity of *university entrepreneurship* and the necessity of *good and responsible relationships* that universities should build and nurture towards their important *stakeholders*. These aspects should be considered altogether within the discussions, analysis and strategies regarding policy strategy in education also at governmental level but also within the decision making process in HEI. Universities are to be seen as responsible active entities that could and should initiate efficient actions and policies and not only as passive receivers that implement up-down governmental decisions.

The model of entrepreneurial university appears to be a salutary approach if overcoming the functioning logic exclusively focused on pragmatism. Embracing pragmatic values as a substantial trend in university strategic management would mean assuming HEI as entities with limited materialist functioning. Considering the complex role and social mission the universities have, it is natural for university behaviour to go beyond the egoist objectives, focused only on its own evolution and / or targeting short-term results. Thus, the entrepreneurship principles must be embedded in a wider logic with complex objectives, having a comprehensive social stake, not just an economic one. Responsibility is the core of each action, as a premise for decision making and a commitment to assume a series of outcomes convergent with sustainable development objectives. Assuming long term outcomes is an obligation for university, shaping both industry practices and values and society development formula and principles. SPR represent an integrative approach offering useful tools for entrepreneurial universities in general and university entrepreneurship particularly, as it stresses upon responsibility as premise of decision making and main characteristic of expected outcome considering the extensive open systems dynamics. Starting from comprehensive analysis and understanding of the environment and stakeholders SPR involve a complex decision making process substantiated by responsible management of relations and communication assuming stakeholder participation and sustainable partnerships. The main advantage of entrepreneurship is that of efficient use of resources with the purpose of increasing and expanding them. With the help of SPR this usage and the expected outcome can be considered under the sign of responsibility and sustainability. SPR for entrepreneurial universities can provide them with an efficient usage of resources (both those of the university and external ones) in order to generate new and extensive resources in the benefit of the

university but also of the others. The real mission of the university is to be accomplished when this process leads to generating new and better resources for society in the context of sustainable growth. Public relations can result in more than image and reputation. They can substantiate the mission of universities. This way they are not just a tool but a strategic approach for successful entrepreneurial universities.

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References

- Austin, E.W., and Pinkleton, B.E. (2001). *Strategic public relations management: Planning and managing effective communication programs*. Mahwah, NJ: Lawrence Erlbaum Associates.
- European Ministers of Education (1999). *Bologna Declaration of the European Ministers of Education*. Retrieved from <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=URISERV:c11088&from=EN>.
- European Higher Education Area (2012). *Bologna Ministerial Meeting Report*. Bucharest, Romania. Retrieved from <http://www.ehea.info/Uploads/%281%29/Bucharest%20Communique%202012%281%29.pdf>
- Clark, B.R. (1998). *Creating entrepreneurial universities: Organizational pathways of transformation*. Oxford: IAU Press.
- Doorley, J., and Garcia, F. (2011). *Reputation Management: The Key to Successful Public Relations and Corporate Communication*. London: Routledge
- Etzkowitz, H., and Leydesdorff, L. (1995). The triple helix – university-industry-government relations: a laboratory for knowledge-based economic development. *EASST Review*, 14(1), 14-19
- European Commission (2010a). *Europe 2020: A strategy for smart, sustainable and inclusive growth: Communication from the Commission*. Luxembourg: European Union. Retrieved from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>.
- European Commission (2010b). *Employers' perception of graduate employability*. Analytical report. Retrieved from http://ec.europa.eu/public_opinion/flash/fl_304_en.pdf.
- European Commission (2012a). *Entrepreneurship 2020 action plan. Reigniting the entrepreneurial spirit in Europe*. Retrieved from <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1389778594543&uri=CELEX:52012DC0669>

- European Commission (2012b). *Rethinking Education: Country Analysis Part I Accompanying the document Communication from the Commission Rethinking Education: Investing in skills for better socio-economic outcomes*. Retrieved from <http://eur-lex.europa.eu/legal-content/EN/XT/?qid=1389778258973&uri=CELEX:52012SC0377>
- European Commission (2016a). EU activities in the field of higher education. Retrieved from http://ec.europa.eu/education/policy/higher-education/index_en.htm.
- European Commission (2016b). Marie Skłodowska-Curie actions Retrieved from http://ec.europa.eu/research/mariecurieactions/index_en.htm
- European Higher Education Area (2015). Bologna Process. Retrieved from <http://www.ehea.info>.
- Foss, L., and Gibson, D. (2015). *The Entrepreneurial University: Context and Institutional Change*. London: Routledge.
- Hon, C.L., and Grunig, J.E. (1999). *Guidelines for measuring relationships in public relations*. Gainesville, FL: The Institute for Public Relations
- Hutton, J.G., Goodman, M.B., Alexander, J.B., and Genest, C.M. (2001). Reputation management: The new face of corporate public relations? *Public Relations Review*, 27(3), 247-261.
- Ledingham, J.A., and Bruning, S.D. (1998). Relationship management in public relations: Dimensions of an organization–public relationship. *Public Relations Review*, 24(1), 55–65
- Ledingham, J.A., & Bruning, S.D. (2000). *Public relations as relationship management: A relational approach to the study and practice of public relations*. Mahwah, NJ: L. Erlbaum.
- Leydesdorff, L. (2011). The Triple Helix, Quadruple Helix, and an N-Tuple of Helices: Explanatory Models for Analyzing the Knowledge-Based Economy? *Journal of the Knowledge Economy*, 3(1), 25-35.
- Moon, B.B., and Rhee, Y. (2013). Exploring Negative Dimensions of Organization Public Relationships (NOPR) in Public Relations. *Journalism & Mass Communication Quarterly*, 90(4), 691 –714.
- Rieu, A. (2014). Innovation today: The triple helix and research diversity. *Triple Helix*, 1(1), 1-22.
- Public Relations Society of America (2015). Public relations defined. Retrieved from <https://www.prsa.org/aboutprsa/publicrelationsdefined/#.Vujz8PI942w>.
- Rothaermel, F., Agung, S., and Jiang, L. (2007). University entrepreneurship: A taxonomy of the literature. *Industrial and Corporate Change*, 16(4), 691-791.
- Tarnawska, K., and Mavroeidis, V. (2015). Efficiency of the knowledge triangle policy in the EU member states: DEA approach. *Triple Helix*, 2(1). Retrieved from <http://triplehelixjournal.springeropen.com/articles/10.1186/s40604-015-0028-z>.
- Wissema, J. (2009). *Towards the third generation university managing the university in transition*. Cheltenham, UK: Edward Elgar.