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Training in Entrepreneurship Competences, Challenges for Educational Institutions: Systematic Literature Review*

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ABSTRACT

Educational institutions have a preponderant role in the formation of human capital with entrepreneurial skills and have the possibility to boost a generation of entrepreneurs with the ability to generate actions to achieve objectives for sustainable development. The purpose of this document is to present the results of a literature review in relation to the conceptual, procedural and attitudinal elements around entrepreneurship that are addressed in the research analyzed. The method of systematic literature analysis was used. The search for articles was carried out in the Wos and Scopus databases; after their selection by means of inclusion and exclusion criteria and a total of 41 empirical researches were analyzed. The results show the elements of the entrepreneurship competences, the problems on which the researchers focused, the theoretical elements and the methodological resources used. This review is useful because it has made it possible to determine the challenges that the field of entrepreneurship training needs to address through action, as well as the methodological gaps and thematic lines for future research.

CCS CONCEPTS

- Social and professional topics ~User characteristics
~Cultural characteristics

KEYWORDS

* Training in entrepreneurship competences, challenges for educational institutions: Systematic literature review

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Entrepreneurship education, Social entrepreneurship, Educational entrepreneurship, Competences, Educational Innovation
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1 Introduction

In the context of the global agenda for the achievement of the 2030 goals in which special attention is given to education, rethinking the processes and mechanisms for achieving quality education is a responsibility of educational institutions. The Agenda 2030 for sustainable development establishes as a fourth objective to guarantee an inclusive, equitable, and quality education and to promote lifelong learning opportunities for all [1]. One of the goals of this fourth objective emphasizes a significant increase in the number of young people and adults with the necessary skills to have access to employment, decent job opportunities, and entrepreneurship, and to ensure that everyone acquires the knowledge and skills to promote sustainable development [2]. The challenge for educational institutions is to ensure the training of individuals with the entrepreneurship competences to generate economic capital and that contribute to the achievement of the other objectives of the Agenda 2030, this goes beyond an entrepreneurial education, it requires a training process that contribute to making students become entrepreneurs in various fields.

Ensuring an education that promotes life-long learning opportunities for all, leads us to think about the competences

to be developed in students and therefore the knowledge, skills and attitudes that teachers should possess. In reference to educational and social entrepreneurship, this has been analyzed and studied in various research projects in recent years, most of the time making reference to student training processes, but little emphasis has been placed on training teachers for this purpose. In this sense, it is necessary to ask ourselves: How would entrepreneurship be conceptualized in relation to the transformations that knowledge managers are making in the educational field? What are the competences that teachers or future teachers should develop for this type of entrepreneurship so that they are prepared to form entrepreneurial individuals?

Considering the above, this document presents the results of a systematic review of literature that aimed to identify the competences, elements of competence and problems that, in relation to educational and social entrepreneurship, have been analyzed in the investigations of recent years, as well as to determine the methodological tools used by researchers in order to create a framework of reference that provides a deeper understanding of the conceptualization of educational entrepreneurship and the competences for this type of entrepreneurship.

2 Conceptual framework

2.1 Entrepreneurship education and Social Entrepreneurship

Entrepreneurship is traditionally associated with the production of economic and business capital. The term is used to express actions in which the individual has the opportunity to reason, think and act holistically, putting into practice leadership skills, innovation and creativity [3]. It is a multifaceted phenomenon also considered as a tool for economic and industrial development of countries [4] [5] in which individuals have the opportunity to discover, evaluate and exploit their opportunities for entrepreneurship and innovation [5] [6]. In the conceptualizations of recent studies, it has been found that entrepreneurship is not only a term used for the creation of companies, but it also serves as a transforming agent for various contexts: political, business and social [7]. Based on these definitions, it is important to determine how educational and social entrepreneurship has been defined and to investigate the findings of the various studies that have been carried out in recent years.

Entrepreneurship education has been commonly linked to educational institutions to refer to the process of entrepreneurial training of students [8] and the creation of an entrepreneurial culture in order to improve students' creative skills, their values, acquire planning skills, know how to act, make decisions, innovate and know how to manage information [9] without the explicit need to create a new company but as an important component to promote entrepreneurship [4] [8]. Entrepreneurship education can be

approached from an education about, for or through the company [7] too do so, it is important that the training process of students is carried out with the relevant models [10] that allow them to enhance their skills. Entrepreneurship education plays an important role in the development of competences in students, and regardless of the approach taken, the type of skills it promotes is indispensable for graduating university students with an appropriate professional profile that allows them to function in society and create more optimal conditions in an increasingly competitive world.

On the other hand, in social entrepreneurship, entrepreneurs focus on creating and innovating to try to solve the problems that affect society. This type of entrepreneurship focuses on an entrepreneurial culture in which social needs are identified in order to create social value [11] [12] [13]. A social entrepreneur has developed diverse skills such as creativity, innovation, inspiration [14][17], recognition of opportunities and high participation with actions for systemic social transformation [15]. Social entrepreneurship gives meaning to the integral formation of the students, inducing the creation of companies or projects that contribute economic value without profit but with the desire to give social value; therefore, within the teaching-learning process from the initial level, an approach centered on the development of entrepreneurial competences would be substantial, there would be human resources with greater potential for entrepreneurship, seeking innovative solutions to social problems and therefore greater emphasis on contributing to sustainable development.

2.2 Entrepreneurial competences and social entrepreneurship competences

In the educational field, training in competencies is common in the programs of educational institutions in order to prepare individuals with the knowledge, skills and attitudes that will allow them to enter the work force, be productive and perform adequately in society. The term competence refers to a subjective action in which the person is intentionally involved in the action, making decisions in response to the situations posed by the context [16], putting into play the set of knowledge, skills, and attitudes necessary for the execution of a task, adding personal value to the organization [17][16]. Thus, competence-based training is relevant from an academic perspective for the subsequent development of individuals in different environments (social, business, and government, among others).

In relation to entrepreneurship, classifications have been made by analysts and researchers of the subject, marking the difference or additional elements that exist between entrepreneurial competences (referred to the business environment) and social entrepreneurship competences (around social entrepreneurs). Entrepreneurial competences refer to a person's capacity to do and follow up on what he or she does, which is the capacity to create ideas and implement

his or her knowledge and skills in different areas of his or her life and in the activities he or she carries out, to recognize problems, find solutions, set achievable goals, take initiative, be responsible for the results, react flexibly to changes and take reasonable risks [18]. The drive and action are basic characteristics of an entrepreneur, but so is the development of the competences of: creativity (finding new answers in solving problems), innovation (take advantage of opportunities to convert ideas into new products / services / processes and add value), risk taking (assess risks and know how to make informed decisions), initiative (take action, create opportunities and improve results) self-confidence (discover and trust in their own abilities) planning (manage activities and projects to meet the objectives) and teamwork (collaborate to achieve common goals) [19]. The set of competences mentioned are part of the profile of a business entrepreneur, but many of them reappear in other types of entrepreneurship as a characteristics of people who have tasks related to management, direction at any level and those who work in academia or promote the development of social projects.

Among the competences of social entrepreneurship are those related to the task or work to be done: innovation, creativity, vision and project for the future, goal setting, decision making, planning, management, problem solving and time management; competences regarding social relations: leadership, relational skills, teamwork, communication, motivation, organization, delegation and management; personal skills development competences: initiative, proactivity, autonomy and adaptability, tenacity and perseverance, self-confidence, positive attitude, self-control, responsibility, tolerance, risk taking, accountability; philosophical and ethical competences: code and ethical sense, interpersonal awareness, critical thinking and social involvement[15].

On the other hand, social entrepreneurship competences can also be classified according to the level of development: cognitive competences, referring to theoretical and practical knowledge that encompasses the individual's ability to identify personal, professional or business opportunities and implement activities; functional competencies, referring to the skills to do something, including planning, organizing, analyzing, communicating, implementing, reporting, evaluating, recording, developing skills and implementing projects, working cooperatively and being flexible, identifying people's strengths and areas of opportunity, proactivity, proactive behavior, appropriate response, evaluation and risk taking. Social competences in reference to knowledge and attitudes such as: taking initiative, assuming changes and innovations with a positive attitude, demonstrating entrepreneurial skills in different situations and at work (at home, at work or in the community) [20] [21]. Another classification for this type of competence refers to: leadership

for social change, social innovation, and social and environmental value [22]. The integral formation of persons, with the competences necessary to function in a society that demands a high level of competence, is a challenge for educational institutions. It is necessary to break away from traditional teaching and learning schemes and resort to new educational models and practices that allow students to put their knowledge into practice from the training process.

2.3 Educational Entrepreneurship Competence

When analyzing the conceptual frameworks of diverse research in relation to entrepreneurial competences, we found that these have been proposed for the business and social environment. In reference to the educational field and considering the importance of training teachers with entrepreneurial competences that will later be an example for their students, a review of recent research was conducted to determine the skills that should be promoted in teachers. The educational entrepreneurial leader is based on ethical actions, principles and values, he is responsible, integral, has an entrepreneurial thought that generates impact and solves problems that need a solution. Among his competences are: leadership, entrepreneurship, emotional intelligence, customer orientation and results, strategic management, negotiation and relationships, teamwork, tactical management, interpersonal relationships, empowerment and orientation to continuous improvement [23].

Complementing the above, there is a set of characteristics of the teacher that show the competence of entrepreneurship: adaptability, activity, initiative, independence, decision, ability to take risks, responsibility for the tasks undertaken, planning, overcoming difficulties and solving complex problems, ability and willingness to cooperate with others, being aware of their own strengths and areas of opportunity. Entrepreneurship as a key competence is expressed through the human capacity to transform ideas into practice, and as the ability to react dynamically to the phenomena that occur in the environment [24].

Considering that it is in educational institutions where training processes take place, universities must be prepared so that both their academic personnel and their students are trained in an environment oriented towards the knowledge generation and cooperation with external agents for the development of their region [25][24]. The school and society are linked [26][25], and therefore collaboration between the various agents must be carried out using the best means for the achievement of common objectives. Possessing entrepreneurial competences should not be exclusive to the teachers who are in charge of an education in entrepreneurship course; it should be part of the profile of all knowledge managers and of the principals or deans who run the different educational institutions.

Based on the definitions previously made and transferring the concept of entrepreneurship to the educational field beyond an entrepreneurship education, we could propose as educational entrepreneurship competences the set of knowledge, skills and attitudes that teachers, knowledge managers and principals or deans possess to plan, design, implement and monitor innovative actions and entrepreneurship (academic, social, economic) from the academic context, in order to transform traditional teaching practices and create new processes, resources, services and knowledge that contribute to the process of comprehensive training of entrepreneurs and impact their actions by generating academic, social and economic value that contributes favorably to sustainable development.

3 Research approach and method

A systematic literature review (SLR) was used in order to make an analysis of the data available in a given period of time in the field of research [27] in relation to primary studies carried out [28]. A systematic process of literature review was used [29]:

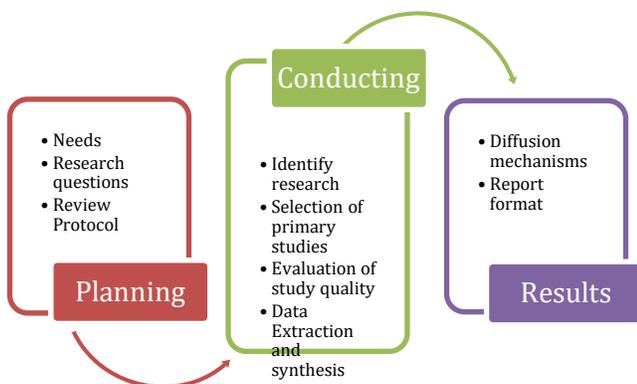


Figure 1: Process for literature analysis

3.1 Planning the review

A literature review is carried out with the purpose of analyzing the elements of entrepreneurial and social entrepreneurship competences that are addressed in the different articles in order to show the gaps that need to be addressed in the field of entrepreneurship training through action and future research. The search for the articles was carried out in the Wos and Scopus databases. The data of the articles and the specifications of the search chain are located in an Excel table available at: https://drive.google.com/drive/folders/1MJ7NYpFGztZ8O11RThFGzLAs0_GnNN2

In the initial selection process of articles the following inclusion criteria were established: studies that in their content addressed the theme of educational and social entrepreneurship corresponding to the last five years (2015 to

January 2020), limited to the English language and related to innovation. The exclusion criteria were: duplicate articles, books or book chapters. A total of 64 articles from Scopus and 64 from Wos were exported to an Excel database for data concentration purposes. Finally, based on the inclusion and exclusion criteria, a total of 92 articles were left for initial analysis.

Research questions: Before the analysis, four research questions were defined with a classification of possible answers based on the literature review:

RQ1: What are the conceptual, procedural, and attitudinal elements addressed for the different entrepreneurial competences?

RQ2: What are the issues addressed by the authors regarding educational and social entrepreneurship?

RQ3. What are the theoretical elements addressed in the articles on educational and social entrepreneurship?

RQ4. What are the methodological tools used in research that analyzes the implementation of a venture?

3.2 Conducting the review

From the database of 92 articles extracted from Wos and Scopus, a selection of primary articles was made, using as criteria for inclusion: empirical studies that met the quality criteria defined by the authors. For this purpose, seven questions were considered with a value of 1 point for each of them; articles that added up to a total of 5 points were considered viable for analysis:

1. Are any of the following terms conceptualized: entrepreneurship, educational entrepreneurship, social entrepreneurship, entrepreneurs?
2. Does it refer to empirical research?
3. Is the context where the study is developed the academic or the social one?
4. Do the articles refer to innovation development or program implementation?
5. Is the methodology used clearly defined?
6. Does the article refer to sustainable development?
7. Does the article refer to teachers or their training process?

Finally, from this selection, a total of 41 articles remained for the SLR study. The answers to the questions were captured in an Excel table and the data was analyzed and converted it into useful information in order to be contrasted with the theoretical elements previously presented.

4 Results

This section presents the results for each of the questions posed.

RQ1. What are the conceptual, procedural and attitudinal elements addressed for the different entrepreneurial competences?

According to the classifications previously presented, it was found that the articles analyzed refer firstly to theoretical and practical knowledge about entrepreneurial competences; secondly, the studies refer to functional competences, that is, they focus on the abilities that individuals possess to do something, and thirdly, the studies focus on competencies in reference to personal abilities, innovation competence, and those related to entrepreneurial spirit and intention. On the other hand, it is observed that there are few articles that focus exclusively on the development of creativity and initiative as fundamental competences of entrepreneurship.

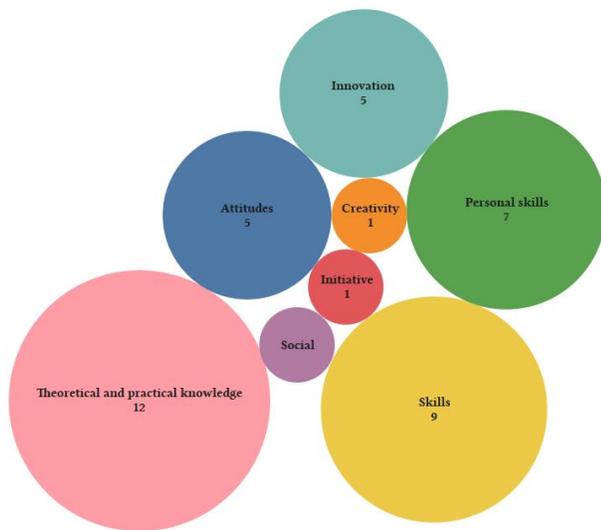


Figure 2: Specific competences of the entrepreneurship

RQ2. What are the problems that the authors address around entrepreneurship education and social entrepreneurship?

Regarding the problems addressed by the authors, two large groups were found: a) the studies that refer to training in entrepreneurship in which a considerable number of researchers mention the importance of training entrepreneurs with entrepreneurial competences and to a lesser extent refer to social entrepreneurship competences; a second point of interest for the researchers after the presentation of their results is b) the need to transform or incorporate into the curriculum of the universities study programs with the necessary elements that enable, facilitate and establish the route to follow for the formation of entrepreneurial competences and social entrepreneurship competences [30] [31] [32] [33].

On the other hand, other problems analyzed, although to a lesser extent, are closely related to the need for cooperation and the establishment of joint programs linking the different sectors (government, business, academic and social), entrepreneurship policies, financing of social entrepreneurs, interdisciplinary, multidisciplinary projects, agricultural initiatives, incorporation of technology for entrepreneurship and pedagogy to develop effective academic activities for the formation of individuals with the necessary entrepreneurship competences, as well as the study of the profile of the professors to achieve this undertaking.

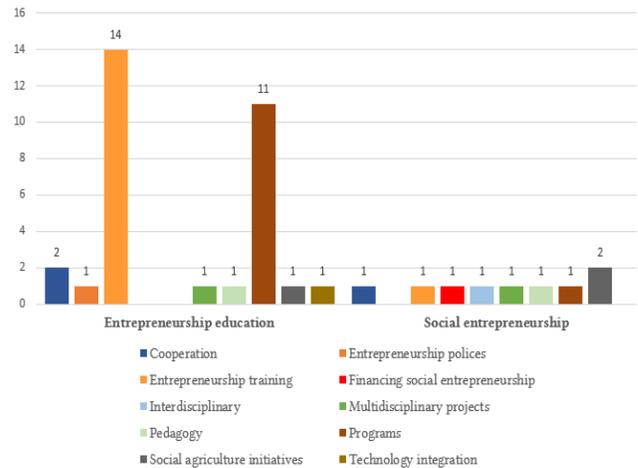


Figure 3: Problems related to entrepreneurship

RQ3. What are the theoretical elements addressed in the articles on entrepreneurship education and social entrepreneurship?

It was found that for both, social and entrepreneurial entrepreneurship, some authors cover a conceptualization of the meaning of the type of entrepreneurship. Other researchers refer to specific competences or elements of educational and social entrepreneurship competences. Another group of researchers emphasize broader theories that underlie the types of entrepreneurship. In other cases they only emphasize broader theories that support the types of entrepreneurship. A small minority of researchers were found to link entrepreneurship with sustainable development, and the analysis of the articles reviewed shows that only one makes explicit reference to the term entrepreneurship competences.

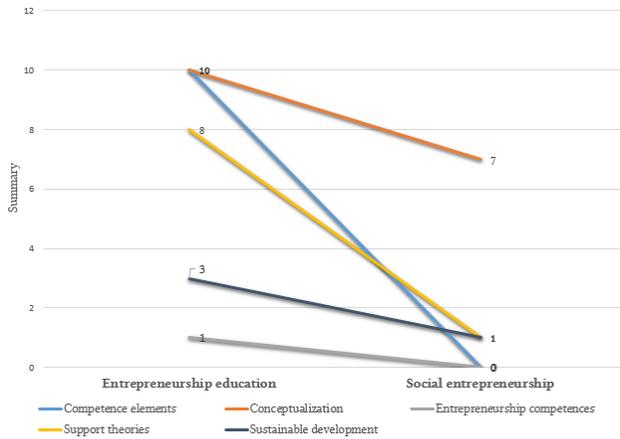


Figure 4: Theoretical elements of the investigations

RQ4: What are the methodological tools used by researchers addressing entrepreneurship implementation?

In order to find the methodological gaps referent to educational and social entrepreneurship research, the tools used by the researchers were analyzed. We found that questionnaires were most commonly used, followed by case studies and scales, with only four studies using a combination of these and other tools.

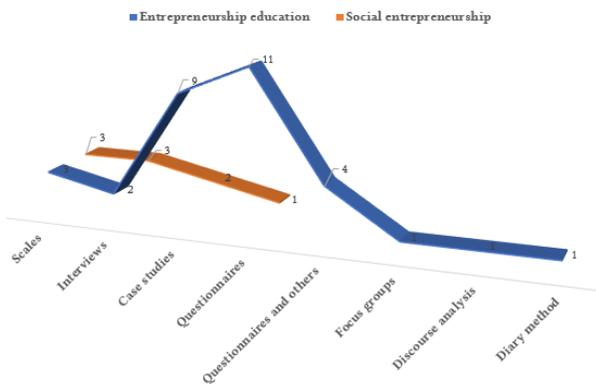


Figure 5: Methodological tools used in research

5 Discussion

Entrepreneurship, in any of its contexts, implies a process of training people to undertake, innovate, create and provide solutions to diverse situations. The literature review carried out allows us to propose the following findings:

The entrepreneurship research from 2015 to January 2020 analyzed in this systematic literature review, focuses mainly on entrepreneurship education, in which it is important the formation of students with an entrepreneurial spirit. An education that aims to develop specific skills focused primarily on the cognitive area in which emphasis is placed on learning

theoretical and practical elements and secondly, entrepreneurship education focused on developing skills to act as entrepreneurs in practice, they also focus on analyzing the entrepreneurial intention of students or graduates (Figure 2). Cognitive or non-cognitive skills have different effects on the development of entrepreneurial competence [8] [20]. If the aim is to train students who graduate with a firm conviction and entrepreneurial intention [20], then educational practices whose purpose goes beyond theoretical content should be implemented. Considering the above, educational institutions are challenged to train entrepreneurial individuals with cognitive and non-cognitive skills, to incorporate practical elements into theoretical teaching so that a transformation is made from an education about business to an education for entrepreneurship, integrating in their graduation profiles the entrepreneurial competences for the different areas.

On the other hand, in relation to the main problems that researchers have addressed in the studies of the last five years, special attention has been given to training in entrepreneurship for the creation of companies in which the subject of study is the student or entrepreneur (primarily university graduates), leaving in second place training for social entrepreneurship and the involvement of actors from various contexts. Although research focuses on the training of students in an entrepreneurial culture, there are few studies that address collaboration and co-creation for entrepreneurship, sustainable entrepreneurship, pedagogical processes for training in entrepreneurship and the training of teachers responsible for courses focused on this topic; however, there is agreement among authors on the proposals for modification or incorporation of new study programs in universities aimed at training entrepreneurial competences (Figure 3). The above results coincide with the theoretical review that entrepreneurship education has focused on the creation of an entrepreneurial culture that emphasizes the development of entrepreneurial competences in students [7] [8] [9] and in which improvements in the curricula are needed in order to clarify the training process that gives impetus to entrepreneurship [4] on the part of students. At this point, it is necessary to emphasize that educational transformations should be carried out from four perspectives: a) A comprehensive educational reform that addresses the training of educational, social and business entrepreneurs from the initial level, b) A design of curricula with a clear definition of entrepreneurial competences, approach and innovative means for their implementation, c) Training of teachers, knowledge managers and directors in educational entrepreneurial competences, with the capacity to innovate in the academic field, to be part of multidisciplinary teams for social entrepreneurship and to form students with entrepreneurship competences, d) Management of an education with open practices that visualize cooperation, linkage and co-collaboration between the academic, social, business and

government sectors in order to jointly undertake actions for a sustainable world.

Finally, a relevant finding in the field of research shows the scarcity of the use of mixed methods to investigate the different thematic lines that revolve around entrepreneurship. The articles analyzed show that most researchers use only one instrument to collect information and there are few investigations that describe the use of more than one instrument (Figure 5). At this point it should be noted that mixed research methods provide the researcher with the opportunity to combine both qualitative and quantitative elements, giving a more holistic basis to the way in which the issues are addressed, allowing the possibility of generating more complete studies [34] [35] [36]. Research on entrepreneurship in any of the contexts where it is developed requires knowledge of the phenomenon as an all. Therefore, using mixed methods brings with it the opportunity for researchers to use the most convenient design, to mix the instruments they consider necessary and to triangulate information obtained from different study subjects.

6 Conclusions

The analysis of the results of this systematic review of the literature highlights the importance of training for entrepreneurship, beyond addressing theoretical elements of an entrepreneurial education; the major social problems require collaboration and cooperation from different sectors (academic, business, social and government) to seek solutions that have a short-term impact on increasingly sustainable societies. The sum of efforts can be translated into an innovative transformation of educational institutions, their processes, services and school programs, contributing to the formation of educational entrepreneurship competences in future teachers who in turn will impact the formation of people with knowledge, skills, and attitudes for entrepreneurship in different areas. In the light of the findings, this study invites researchers to observe the thematic lines that require attention, among them the process of training students as entrepreneurs, success stories of educational and social entrepreneurship, and the creation of companies. Another possible line of research that is recommended is the analysis of the profile of teachers who are in charge of training courses for entrepreneurship and their process of formation/training to become guides of the new generations of entrepreneurs, design of curricula with entrepreneurial competences, government policies to promote entrepreneurship in different contexts and the promotion of a culture of co-collaboration between different spheres (governmental, social, business, academic) for the training of entrepreneurs with the necessary competences to contribute to the achievement of the sustainable development objectives of Agenda 2030.

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