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ORIGINAL ARTICLE

The Sustainable Development Goal 4 and the Impact Ranking: Quality Education in Portuguese Higher Education Institutions

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ABSTRACT

Sustainability based on the Sustainable Development Goals (SDGs) is currently a relevant dimension for the competitiveness of Higher Education Institutions (HEIs). Portuguese HEIs will have, therefore, to adapt to the demands of the times and follow the Sustainable Development practices. Therefore, Quality Education is, then, a factor that allows HEIs to have competitive advantages, given that Education is a critical success factor for these institutions.

Through a qualitative analysis of articles on the theme of Sustainability in Higher Education and the THE Impact Ranking platform, we tried to understand the impact that SDG 4 - Quality of Education has on Portuguese Higher Education Institutions, registered on this platform from 2019 to 2022.

The main conclusion is that SDG 4 does not seem to be considered yet by Portuguese HEIs as a distinctive factor to obtain competitive advantage in the universe of HEIs.

Introduction

Higher Education Institutions (HEIs) are becoming more and more concerned with the philosophical foundations of the work being done to promote sustainable development. This function is inevitable and crucial in the context of the critical need for them to develop sustainably [1]. In order to help HEIs work toward a more sustainable future, twenty-two university delegates in 1990 submitted a ten-point action plan at an international conference in Tailloures, France [2,3].

According to [4], HEIs offer society four levels of intervention: first, they educate policymakers for a sustainable future; second, they conduct research to find solutions, paradigms, and values that support a sustainable society; third, they run university campuses as models and real-world examples of sustainability at a local level; and, fourth, they coordinate and communicate with one another and with society.

A HEI with adequate Sustainable Development and support will benefit in terms of quality improvement [5], as evidenced by the increased interest in the quality and internationalization of research due to the promotion of Sustainable Development [6].

The key elements influencing the achievement of sustainable development begin with the stakeholders in each higher education institution having a certain

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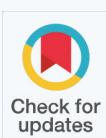
Keywords

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- Quality education
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level of understanding [6]. Thus, it is clear that obstacles to the implementation of sustainable management of units in universities include a lack of knowledge, skills, competencies, time management, and authority as well as a lack of guidance material on sustainable development [7].

Several experts support the inclusion of sustainability in university curricula as a strong starting point for sustainability-related approaches because education is a Critical Success Factor (CSF) of HEIs [6,8].

The common practice of ranking universities can be primarily attributable to the aspirational objective of creating top-tier universities all over the world. Universities are tasked with playing a strategic role in aiding their countries' post-industrial transformation since higher education is becoming an increasingly important component of the knowledge economy. Global university rankings are frequently used as practical approaches to identify the image of a world-class university. In this sense, world-class universities are considered fundamental national institutions propelling such economic growth and change [9]. Sustainability objectives are becoming more ambitious aspirations for academia than ever before. This is partially due to the fact that many universities need to rank higher in the impact rankings in order to be competitive [10]. The presence of these rankings can take many different forms, including the development of new higher education programs, evaluation of higher education offerings on a national and international scale, presentation of compelling university strategies, and fostering competition for the benefit of learners, academics, and stakeholders [11]. Therefore, it is essential to include sustainability criteria in the rankings since they enlighten stakeholders and highlight, among other things, how the world is changing. Higher education institutions can serve as useful models of how environmental management and other decisions might be made in the corporate world [10].

The Sustainable Development Goals (SDGs) lay out the world's goals and aspirations for 2030 and call on governments, organizations, and civil society to take global action to end poverty and provide everyone the chance to live with dignity and opportunity, while respecting the planet's resources. Through the training of academic staff and students, higher education is supposed to provide the knowledge and innovation to address social, economic, and environmental concerns [2].

Universities can promote sustainability culture in a number of ways, such as by including it in the curriculum or by encouraging experimentation, investigation, innovations, and the dissemination of sustainable knowledge [12,13].

The performance of higher education institutions in relation to the SDGs has not been evaluated. Universities must regularly report on their progress in promoting sustainability, publish consistent data, and ultimately incorporate all of their efforts into a sustainability

management system in order to foster group involvement and a shared identity for their stakeholders [14].

Filho WL, et al. [15] argue that the Sustainable Development Goals (SDGs) can offer a chance to overcome obstacles in order to attain sustainability in HEIs. HEIs can significantly contribute to the sustainability challenge because of their function as hubs of learning, innovation, and research. They can do this by tackling sustainability challenges in a variety of ways, all of which should be explicitly acknowledged in their strategy [16].

Sustainable development goals are not the only interests that influence universities. Despite this, marketing is now a crucial pillar in the academic environment as well, and education has been impacted by the intense competition for attracting in and keeping students [17]. If these institutions work to provide high-quality education and a better future for the next generation, competition might have a good impact [18].

Rankings arise as a result of competition, with all universities using the same metric management methodology in order to assess their reputation and success in both academics and research. Recent events have shown that the measurable impact on sustainability in rankings was decided by the higher education institutions' growing interest in sustainability [10].

According to [19] the SDGs could be operationalized in a variety of ways, including through course objectives, competency development, instructional strategies, and research by professors and students. If HEIs specifically mention each course's connection to the SDG, it will be easier to understand how HE contributes to the SDGs and target (if any).

SDG 4 notably focuses on inclusive, egalitarian, high-quality, and lifelong learning. SDG 4 is one of the top 17 goals, but it also serves as the foundation for all the other goals because it is essential to their fulfillment. HEIs have a unique role to play in the implementation and realization of this Goal, which is of course actionable in formal and non-formal education and at all educational levels [20].

With this paper we intend to understand the impact that SDG 4 - Quality of Education has on the Portuguese Higher Education Institutions registered in THE Impact Ranking, from 2019 to 2022.

This paper presents the following sections: Introduction, Methodology, Discussion and analysis of the results on Portuguese HEIs and Final considerations.

Sustainable Development Goal 4 - Quality Education

The issue of the Sustainable Development Goals has been the subject of an increasing number of scientific studies since

it appears to be a key matter and one of enormous general interest in this century. The SDGs aim to direct global efforts toward a set of common goals and targets. They symbolize and define the global priorities for the 2030 Agenda, which has been endorsed by almost 190 countries.

The 17 SDGs are defined in areas that condition the quality of life of all citizens of the world and even of future generations. According to the United Nations, the 2030 Agenda and the 17 Sustainable Development Goals are the shared vision for humanity, a contract between world leaders and people and a list of actions to be undertaken on behalf of people and planet [21].

Education is fundamental to escaping poverty and enabling higher socio-economic mobility. In the past decade, significant progress has been made in increasing access to education and school enrolment rates at all levels, particularly for women [22].

SDG 4 meant to "Ensure inclusive and quality education for all and promote lifelong learning" [23].

The United Nations clarifies: "Obtaining a quality education underpins a range of fundamental development drivers. Major progress has been made towards increasing access to education at all levels, particularly for women and girls.

Basic literacy skills across the world have improved tremendously, yet bolder efforts are needed to achieve universal education goals for all. For example, the world has achieved equality in primary education between girls and boys, but few countries have achieved that target at all levels of education" [23].

The United Nations has established 10 Targets and 11 Indicators for SDG 4. Targets define the goals and Indicators signify the metrics by which the world objects to track whether these Targets are accomplished. The Targets are as follows:

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes.

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and preprimary education so that they are ready for primary education.

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

4.5 By 2030, eliminate gender disparities in education

and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

4.A Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all.

4.B By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.

4.C By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states" [22].

For primary, secondary, and higher education, achieving SDG 4 is difficult. Importantly, Agenda 2030 for Sustainable Development, or the SDGs, represents a significant shift in the UN's emphasis on education. "Quality education (Goal 4) aims not only to provide inclusive and equitable education, but also to promote learning opportunities" [24]. These authors also refer that SDG 4 has direct effects on the other goals, including sustained, inclusive, and sustainable economic growth, full employment, and productive and decent work for all (SDG 8), responsible consumption and production (SDG 12), partnerships, and implementation strategies (SDG 17), and largely on building resilient infrastructures, promoting inclusive industrialization and sustainable development, and fostering innovation (SDG 9), by promoting innovation more vigorously. Fostering innovation in sanitation conditions and access to clean water, in access to energy sources such as renewable energy, and in the protection of marine and terrestrial life, stems from the impact that the quality of education has had on work and economic growth, innovation and infrastructure, production and consumption, and partnerships. Eventually, we can expect poverty and hunger to be eradicated, people

to have access to quality healthcare, people to be free from discrimination and treated equally, people to live in sustainable communities and climate change to be reduced. Only in this way can we live in peace, with strong institutions and in a sustainable way without compromising future generations (Figure 1).

Most nations emphasize the function and significance of higher education in fostering a lifelong learning culture. The structure and administration of teaching and learning in the higher education sector may be affected by these progress metrics. However, the higher education field is exceedingly complicated, with a wide variety of programs, delivery methods, and collaboration agreements. A wide range of efforts, including but not limited to pedagogy and learning, academic research, campus management and practices, and impact as an organization, are also necessary to integrate sustainability in higher education [26]. According with these authors, as HEIs seek to achieve SDG 4, they must gain a comprehensive understanding of what sustainable development is and how they may contribute to it. This will give stakeholders inside and outside of HEIs a special chance to work together and network in order to build, comprehend, and articulate such knowledge.

Higher education includes responsible management training in institutional operations as well as planning, curricular pedagogy, and research. Students who are now enrolled in HEIs for higher education will have to deal with problems including corporate scandals, economic slump, global warming, and joint efforts to accomplish the SDGs [24]. In order to define sustainability goals and develop implementation plans for those goals, HEI personnel and students should be assessed for their sustainability literacy [20].

Quality education leads to improved development outcomes for individuals, communities, and countries, which means better access to gainful employment, better nutrition, and health. It also means a reduction in gender disparities, greater resilience in the face of disasters and more engaged citizens [27].

According to [28] HEIs should integrate both their research and courses with the SDGs and the various responsibilities they involve. Here, a unique opportunity is presented to link the course content with SDGs, improving the learning experience. HEIs may in this environment develop, test, and deploy innovative contents, learning techniques, and transformative approaches. HEIs should, as well, to work to increase the amount of applied research (practice-oriented research) focused on the SDGs that helps the public and private sectors become more efficient and sustainable. PhD programs are a good fit in this situation. d) HEIs ought to take a more active role in encouraging the student body to endorse and support the SDGs.

Last but not least, universities as a whole and university staff in particular should work to maximize the many opportunities that the SDGs present to them, not only in terms of teaching and research but especially in terms of their outreach activities (the so-called "3rd mission") and serve as advocates for the SDGs among the general public. Universities must be leading the pack, not trailing it [28].

The Impact Ranking

Rankings have a long history dating back to the late nineteenth century, but since the turn of the millennium, the development of globalization has been the most significant factor behind and explanation for their emergence and success [29].

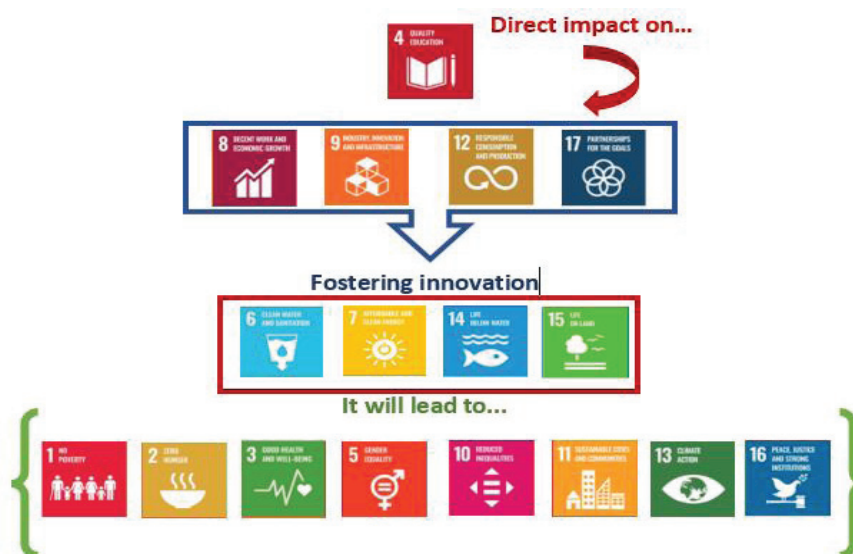


Figure 1 Sustainable development goals and the effect of quality education [24,25].

As of now, the main focus of the rankings has been to assess institutions' standing in terms of their reputation for academic and research excellence, or their performance, with little regard for sustainability-related issues. No matter if they are private or public, the rankings assist universities in marketing themselves in an effort to attract "customers" (students) and satisfy their funding sources. Not only the ranking position, but also the trend, quartile, and increasing position in the ranking are significant [17]. While students and their parents will always be a key audience for rankings, today's stakeholders also include governments, employers, investors, potential HE institutions (henceforth HEI), business partners, the general public, and the media [29]. Any statistic is important as long as it continues to serve the needs of the stakeholders in HEIs, including domestic and international students, researchers, new HEIs, university leaders, capital funds, and politicians [17].

The Times Higher Education Impact Ranking is a platform that, since 2019, presents global performance tables evaluating HEIs in relation to the UN Sustainable Development Goals. It can be said that, it is an instrument that intends to measure the global success of HEIs in achieving the UN SDGs, attempting to make a comprehensive and unbiased comparison in four main areas: research, administration, dissemination and education, using accurate and calibrated metrics/indicators [30].

Although the platform refers to "universities", the truth is that it covers all institutions that meet the requirement to grant undergraduate or postgraduate degrees. This means, then, that any Higher Education Institutions are covered.

Concerning the SDG 04 score: Quality Education, this ranking concentrates on the role universities play in early years and lifelong learning, their pedagogy research, and their focus towards inclusive education [17].

The platform promoters employed a process/methodology to gather the data, first outlining the concepts associated with the four domains they had chosen. The assessment covers all 17 UN SDGs, and university/institutional performance is measured for each of them using a unique approach based on the SDGs selected. Institutions are free to submit as many statistics and data regarding the 17 SDGs as they like or are able to. Every SDG contains a set of metrics and indicators that are used to evaluate the institution's performance in relation to the goal. Any higher education institution that submitted information on SDG 17 and at least three other SDGs is included in the overall ranking. Any HEI that teaches at the undergraduate or postgraduate level is qualified to apply and receive a ranking. While research activities are part of the approach, participating institutions are not required to submit a certain amount of research. An institution's final score on ODS 17 with its top three scores from the remaining 16 SDGs. The range for all SDGs is 0 - 100 and the calculation

of the overall score is based on the following proportions: SDG 17: 22% and for the other first three SDGs: 26% each. This means that different HEIs score based on a different set of SDGs, depending on their interest.

Each SDG's ranking is determined using a scale, with 100 representing the highest score and 0 representing the lowest. In order to account for slight variations in the scoring range for each SDG and to ensure that institutions were treated equally regardless of the SDG for which they provided data, this methodology was employed. It is these adjusted scores that are used to determine in which SDGs a higher education institution performed most strongly [30].

There are three types of measurements for each SDG: research, continuous, and evidence. Metrics for research are drawn from information supplied by Elsevier. Each SDG has a unique query that restricts the scope of the measure to publications that are pertinent to that SDG. Additionally, publications found using artificial intelligence are included. With the exception of the measure of patents under SDG 9, which relates to the time period in which the patents were published rather than the time period of the research undertaken, the period used is 5 years. There are always at least two bibliometric measures in use, and the metrics chosen for bibliometrics vary per SDG. Contributions to impact that vary continuously on a scale are measured by continuous metrics. An example is the number of graduates with a degree in health. These are usually standardized to the size of the institution [30].

A different kind of statistic for policies and initiatives acknowledges the existence of evidence and the fact that it is available to the public. In general, there is no size standardization for these measurements. For instance, HEIs claim that mentorship programs exist, thus the metrics call for institutions to give the data to back up their statements. Evidence is compared to a list of criteria, and cross-validation is used to make decisions where there is doubt [30].

The calculation of the score in relation to the evidence metric is done as follows: When a metric requires evidence, a series of questions is asked and a certain score is assigned according to the answer. When the evidence is provided, it is assessed whether it answers the question completely, answers partially, or not at all. Depending on the assessment, it is scored one, half, or zero points, respectively [31].

According to [17] study, analysis sheds light on a subject that has received little attention: the relationship between HEIs' standing and reputation and their openness in disclosing their SDG accomplishments. Rankings of universities can definitely have a big impact. They can aid potential students in limiting their selection of university and, of course, they can advertise universities. Universities must record and communicate regularly about less obvious actions they carry out that have social values, just like enterprises do in their corporate sustainability reports.

Whether we agree with the rankings or not, one of its important results is that they offer some kind of responsibility. Rankings have changed how HEIs interact with their country's state on the international stage as a result [29].

Methodology

The methodological approach is focused on the qualitative analysis of scientific articles on the themes of SDGs in the context of Higher Education and of the platform THE Impact Ranking.

The research was conducted in several phases using the following methodology:

Phase 1 - Qualitative analysis of articles on the theme of Sustainability. The selection of articles was based on the use of the following keywords in Google Scholar, Web of Science, among others: Sustainability, Sustainable, SDGs and Sustainable Development Goals in Higher Education.

Phase 2 - Qualitative analysis of the content of THE Impact Ranking platform was essential for the establishment of the relationship between the Portuguese HEI and the SDG 4.

Phase 3 - Establishment of the relationship between the selected SDG and Portuguese HEI.

The qualitative analysis was done manually by the authors.

Analysis and Discussion of the Results on Portuguese HEIs

In Portugal, Higher Education is characterized as mentioned in figure 2: Number of Higher Education Institutions in Portugal [32].

There are 99 Higher Education Institutions in Portugal, 63 of which belong to the private Higher Education sector, 34 to the public sector and 2 to the public military and police Higher Education sector. The distribution of institutions varies across the country according to the regions, with the highest concentration of institutions in the Lisbon and Oporto regions, as mentioned in table 1: Distribution of HEIs in Portugal [32].

In terms of courses, there is a total of 5251, of which 4088 are public and 1163 are private. In addition, there are

90 public courses of military and police education (Figure 3): Number of courses taught in HEIs in Portugal [32].

The three most relevant areas in terms of study cycles are social sciences, commerce and law with 1837, followed by engineering, manufacturing and construction with 1278, and then arts and humanities with 1040. With regard to the cycle of studies by type of course, the largest share goes to master's degrees with 44.59%, followed by undergraduate degrees with 27.15%, higher technical professional courses (CTeSP) with 13.15%, doctorates with 13.04% and, finally, integrated master's degrees with 2.09% (Figure 4): Study Cycles in Portugal [32].

Concerning the THE Impact Ranking the Portuguese HEIs that integrated the ranking from 2019 to the present are those presented in table 2: Number of Portuguese HEIs in THE Impact Ranking/year.

The number of Portuguese HEIs registered in THE Impact Ranking grew considerably from 2019 to 2020, however, from that year onwards there was a much smaller increase, with an average of 1 institution per year.

Only 4 Portuguese HEIs have remained in THE Impact Ranking from 2019 to 2022, namely ISCTE-University Institute of Lisbon, NOVA University of Lisbon, University of Aveiro and University of Minho.

ISCTE-University Institute of Lisbon

Description: ISCTE-University Institute of Lisbon is a public university founded in 1972. Its areas of specialisation are business, sociology and public policy, social sciences, technology and architecture. With nine research centres. The AUDAX research centre collaborates with the Massachusetts Institute of Technology (MIT) as well as with several local authorities, business associations.

NOVA University of Lisbon

Description: Founded in 1973, NOVA has nine academic units offering a wide variety of academic degrees in all areas of knowledge and constituting a cultural, artistic, academic and technological resource. The internationalization strategy of NOVA has been reinforced through active participation in several student and staff mobility programmes within the universe of European, Lusophone and Latin American Higher Education Institutions. In the field of Entrepreneurship, NOVA is creating and developing

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99

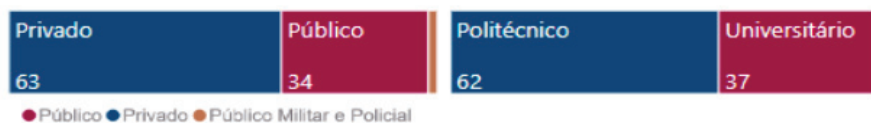


Figure 2 Number of higher education institutions in Portugal [32].

Table 1: Distribution of HEIs in Portugal [32].

Region	District	Number of HEI
North	Porto	24
	Braga	5
	Viseu	3
	Vila Real	2
	Bragança	1
	Viana do Castelo	1
	Subtotal	36
Centre	Lisboa	30
	Coimbra	5
	Aveiro	4
	Leiria	3
	Santarém	3
	Castelo Branco	2
	Guarda	1
	Subtotal	48
South	Setúbal	6
	Faro	2
	Beja	1
	Évora	1
	Portalegre	1
	Subtotal	11
Autonomous Regions	Azores	1
	Madeira	3
	Subtotal	4
Total		99



Figure 3 Number of degrees taught in HEIs in Portugal [32].

Ciclos de estudo por Área de Formação



Ciclos de estudo por Tipo de Curso

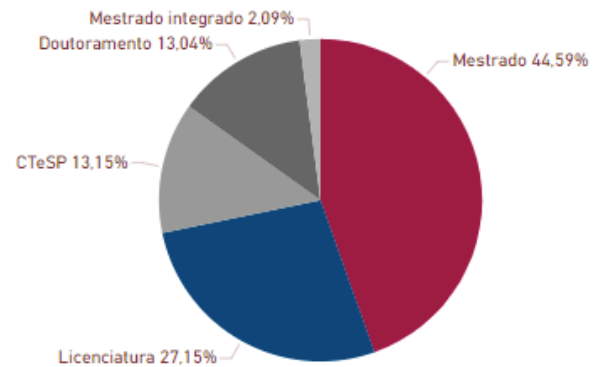


Figure 4 Study cycles in Portugal [32].

Table 2: Number of Portuguese HEIs in THE Impact Ranking/year [30].

	2019	2020	2021	2022
Número de IES	4	10	11	13

an entrepreneurial ecosystem within the University. NOVA launched, in 2013, as part of its Strategic Plan, a PhD School.

University of Aveiro

Description: Founded in 1973. Attended by over 15,000 students. 20 research centres. Intercultural environment: in a universe of over 90 nationalities.

Student facilities: 16 dormitories on three campuses, which can accommodate over 1000 students; Sports Centre: sports hall, multi-purpose room, fitness centre, athletics track, synthetic football pitch; 6 libraries; 5 high quality and low-cost canteens; University Health Centre. International Student Support: University of Aveiro intercultural area; Support for the Integration of Migrants; Buddy Programme for International Students. The Tutor Training Programme of the University of Aveiro.

University of Minho

Description: University of Minho was founded in 1973 as part of a wave of "new universities" which revitalised education in Portugal. Three campuses are located in the city of Braga as well as the Azurém Campus in Guimarães. In total, there are eleven schools and institutes in Minho. The school of architecture is located in Guimarães, which in 2001 had its historic centre designated as a UNESCO World Heritage Site, and in 2012 was a European City of Culture. There are 32 research centres within the University of Minho. The Confucius Institute in Braga was created in partnership with Nankai University in Tianjin, and is a research centre. There is also an extensive science school at Minho, and on average 30 patents per year are registered at the university. More than 400 universities around the world have established partnerships with University of Minho.

Observing the 4 Portuguese HEIs since 2019 appeared annually registered in THE Impact Ranking it can be seen that besides SDG 17, the other 3 SDGs are not always the same, year after year (Table 3): Portuguese HEIs and the SDGs of THE Impact Ranking.

Analysing (Table 3), it appears that SDG 17 is present in all HEIs since it was established as mandatory by the THE Impact Ranking platform. With regard to SDG 4, at ISCTE it appears in 2019 and 2022, at Universidade Nova de Lisboa it is only present in 2019, at Universidade de Aveiro it never appears and at Universidade do Minho it is present in all years since 2019. Considering that it is not possible to access the applications submitted by the HEIs, it is not understandable whether they contained documentation and evidence for the classification of this SDG in the ranking or

simply, if evidence was presented, this was classified with lower values and could not appear in the top 4.

Currently, the percentage of Portuguese HEIs in the ranking, in relation to the total of participating HEIs is only 0.92%. In what concerns the percentage relative to the participating HEIs of the European Union countries it is 6.37%.

The four HEIs that have remained in the Ranking since 2019, ISCTE-Instituto Universitário de Lisboa (ISCTE), Universidade Nova de Lisboa (UNOVA) and the Universities of Aveiro (UAVEIRO) and Minho (UMINHO) belong to the public university system. ISCTE and UNOVA are located in the central region and UAVEIRO and UMINHO are located in the North of the country, although they are all close to the coast. Thus, it cannot be said that there is geographical dispersion as there is no institution from the South or from the interior of mainland Portugal or the islands.

The analysis made to the existing sustainability item in the strategic plans of the 4 referred HEIs, it is possible to verify that:

ISCTE-IUL presents sustainability practices evidenced through several initiatives, namely, the SDG Route, a cycle of 5 conferences with the theme "The Emergence of Sustainability," and the initiative "sustainable profile of the month" are just a few of the sustainability awareness programs offered by ISCTE. These programs have helped the academic community become more aware of sustainable practices. It shows a real direct commitment to the SDGs when teachers and researchers identify the SDGs, they believe are pertinent for each of the curricular units and

Table 3: Portuguese HEIs and the SDGs of THE Impact Ranking [30].

	2019	2020	2021	2022
IES	ODS	ODS	ODS	ODS
ISCTE-University Institute of Lisbon	4	9	12	10
	5	12	9	4
	16	11	16	5
	17	17	17	17
NOVA University of Lisbon	16	16	9	9
	3	5	16	5
	4	9	3	16
	17	17	17	17
University of Aveiro	8	15	15	11
	12	9	14	1
	11	6	6	13
	17	17	17	17
University of Minho	4	9	9	9
	11	12	4	5
	3	4	8	4
	17	17	17	17

for each of the scientific papers, as appropriate. The ISCTE sustainability report, though not the most recent one, which is available on the HEI website, presents the working groups established to work on action plans related to sustainability aspects, participation in two sustainability rankings, training hours provided to the community, percentage of recycled waste, among other statistics [33].

UNOVA engages in behaviors, actions, or activities that support its alignment with sustainability and/or the SDGs. Therefore, in terms of this institution, research initiatives, publications, and events, among others, are compiled in the UNOVA publication "Nova Sustainability Map 2020" associated with the NOVA 4 the Globe initiative, a HEI platform that seeks to increase the social impact of NOVA University and facilitate its organization and transformation towards better sustainable practices, in compliance with the Green Deal, the Paris Agreement, and the Sustainable Development Goals (SDGs). The Sustainability Policy, which defines the four axes of action (research, education, generation of value and innovation, and institutional practices) for the institution, is anchored in two metrics that direct the measures to be adopted (impact and relevance). The Sustainability Policy was released to support all of the institution's activity [34].

UAVEIRO demonstrates procedures, actions, and initiatives that demonstrate how it supports sustainability and/or the SDGs. Sustainability has been made a priority at UAVEIRO, as seen by initiatives like waste reduction and recycling promotion, reuse of materials and equipment promotion, energy sustainability promotion, and review and implementation of water efficiency initiatives. Since 2019, applications have been submitted and approved for THE Impact Ranking. The fact that the HEI is a member of a project of European Universities led by the European Consortium of Innovative Universities and with a primary focus on SDG 11 shows how important it is to sustainability [35].

The foundation of UMINHO sustainability is built on efforts related to the Agenda for Quality of Life on Campuses and Well-Being, with practices, actions, and initiatives that attest to its alignment of contribution to sustainability and/or the SDGs. The University's commitment to the 2030 Agenda for Sustainable Development, through the 17 Sustainable Development Goals, is reflected in actions, activities, and practices that it is impossible to see if they have already been implemented. These commitments include promoting environmental and energy sustainability on campuses, using technologies to make campuses more efficient, safe, sustainable, and enjoyable to teach, research, and study on. However, there are 3 current sustainability-related projects, including AUMEA (UM Agency for Energy and Environment), the Landscape Lab and IB-S (Institute of Science and Innovation for Bio-Sustainability). The HEI provides data on health and safety, training and education, equality and diversity, the office for inclusion, reduction

of direct emissions, consumption of drinking water, usage of paper, amount of ink cartridges, and overall energy consumption in its report, Sustainability in Numbers. Also contributing to the institution's increased sustainability were the valorization of trash generated, the use of public transportation and other non-polluting modes of transportation, and a number of significant cultural and sporting events [36].

Final Considerations

SDG 4, due to the goals it intends to achieve, is a relevant factor of sustainability in HEIs. However, the only current platform that measures the impact of the SDGs on HEIs does not seem to consider Quality Education (SDG 4) as a critical factor in these institutions. As Education is a Critical Success Factor in HEIs it seems that there is still a way to go for Portuguese HEIs to consider SDG 4 as an important element in the performance and sustainable development of institutions and thus present itself as a distinctive quality factor that promotes institutions giving them prominence and competitive advantage. Portuguese HEI present several sustainable related activities contributing to the 2030 Agenda and to the Sustainable Development Goals. The four institutions that were examined appear to be sincere about their interest in sustainability and its application in their individual organizations. They also appear to wish to make sure that this dimension is regarded as a quality component to be valued by stakeholders through the procedures, events, and activities that are carried out and planned. The amount of evidence that can be gathered to support these organizations' contributions to sustainable development and, by extension, to the SDGs, is evident. Higher education institutions are genuinely committed to preventing discrimination, leaving anyone behind, and compromising present and future generations. The limitations to this study were the inability to assess the application and evidence presented by HEIs to the THE Impact Ranking, due to lack of access; the impossibility to access to all information submitted by HEI in the THE Impact Ranking platform and not all SDGs were analyzed to obtain more information and possible relationship between them.

As future researches it is suggested to study the THE Impact Ranking platform on the decision to consider as mandatory for all HEIs the SDG 17 and its position on SDG 4. Considering that only four Portuguese HEIs participating in the THE Impact Ranking were analyzed, the analysis could be extended to all participating HEIs and, by carrying out the same study try to understand their relationship with the ranking, but also inquire about the reasons underlying the decision to participate. Another research could deepen the analysis of thae Portuguese HEIs present in THE Impact Ranking by confirming the applications and the evidence presented by the HEIs and what the ranking presents and to evaluate the effective contribution to the SDGs that allowed the classification and positioning of the HEIs.

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Conflict of Interest

There is no conflict of interest.

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