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Sustainable

GUIDE CONTENTS

FOR HE TEACHERS

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1.About this guide for Higher Education.

The objective of this guide is to help educators in their teaching to create transformative learning in all the higher education disciplines through sustainable development goals. Moreover, teachers will provide critical thinking to the students in different fields of knowledge and science. And they will show the relationship between society and sustainable development. The general guide is included in the content of the sustainable development goals, which represent great challenges for humanity.

Since the United Nations approved the 17 sustainable development goals (SDGs and its 169 targets in September 2015 supported by 191 countries to achieve by 2030, these goals have served as a guide for governments, companies, and different institutions, such as NGOs, Universities, etc. considering the different needs affecting human beings.

The 17 sustainable development goals are summarized in global objectives for society:

Ilustration 1-The 17 Sustainable Development Goals

Source: UN website.

The role of education is relevant in achieving the SDGs. Higher education institutions and teachers have the responsibility of create a global mindset for sustainability. Then, educators will need resources and training to provide a vision of knowledge linked to different SDGs. In this sense, the teaching innovation processes that integrate the SDGs offer multiple teaching opportunities with an impact on learning. In addition, each SDG has specific targets that extend their objectives. *Refer to SDG 4, ensure inclusive, equitable, and quality education and promote lifelong learning opportunities for all*, this objective, in turn, is made up of 10 targets, which are the following:

Illustration 2 – SDG 4 Quality education

Source: UN website

Target 4.1. By 2030, ensure that all girls and boys complete free, equitable, and quality primary and secondary education that leads to relevant and effective learning outcomes.

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

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

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

Target 4.5. By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for vulnerable people, including people with disabilities, indigenous peoples, and children in vulnerable situations.

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

Target 4.7. By 2030, ensure that all learners acquire the knowledge and skills necessary to promote sustainable development, including, but not limited to, education for sustainable development and sustainable lifestyles, human rights, gender equality, and the promotion of a culture of peace and non-discrimination. violence, citizenship, and appreciation of cultural diversity and the contribution of culture to sustainable development.

Target 4.a. Build and improve educational facilities that are sensitive to children, disabilities, and gender and provide safe, non-violent, inclusive, and effective learning environments for all.

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

Target 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.

The goals reflect the importance of education and the inclusion of children and young people and, specifically, they also allude to the link between education and sustainable development.

The objective of this guide is to provide university teachers with specific guidelines to include in their teaching ideas, case studies, best practices, linked to the objectives and targets of the 17 sustainable development goals, starting from SDG 4. Among them, there are many possible ways to relate them and the actions The specific ones that are proposed in the classroom can probably affect several SDGs at the same time.

Therefore, the objective of this guide is to guide teachers in their subjects:

i. Identify and explain each SDG with its targets through case studies, real situations, etc.
ii. Connect knowledge to different SDGs.
iii. Provide a methodology that allows each teacher to adapt this guideline to different subjects at different levels in their universities.
iv. Describe the learning outcomes in the education of students from a sustainable perspective.

As a consequence, this guide for teachers facilitates the implementation of the SDGs in the curriculum of students.

This guide is divided into different sections and contents with the aim of providing guidelines for implementing the SDGs in Higher Education (section 2. Then, different areas of work are described where the SDGs can be included in higher education (sectio n 3. In the next section, it is specifically explained how to include it in the curriculum/teaching guide of different disciplines (section 4 and, finally, the description of some methods for its use in the classroom (section 5.

Finally, different case studies from each participating country are provided (section 6 to support teachers with different practices that can serve to inspire their relationship with students in their teaching work (Annex I.

2.Implementing the SDGs in Higher Education.

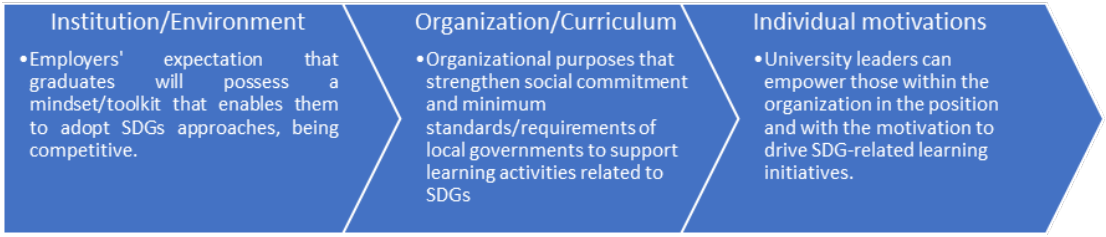
This section shows some aspects related to the different institutional levels for the implementation of the SDGs, stages of work with the SDGs, and different areas of implementation in the HE.

2.1. Activity levels for SDG implementation

The implementation of the SDGs in HEIs goes through several aspects that need to be considered: (i the individual motivations of HEI leaders, (ii organizational purposes that strengthen the social commitment and minimum standards/requirements of local governments to support learning activities related to the SDGs, and (iii the expectation of employers that graduates possess a mindset/toolkit that enables them to adopt SDG approaches while being competitive.

The alignment of the three elements creates a link between three levels of activity, institution/environment, organization/curriculum and individual, which opens opportunities for HEIs to position themselves as change agents, mediating between key stakeholders.

Illustration 3. Three levels of activity for the implementation of SDGs in higher education institutions



Source. Fornes et al. (2019

This alignment between the different forces that make it possible to integrate the SDGs in higher education institutions can be summarized as follows:

First, designing/adopting a teaching methodology that offers first-hand experience and exposure to the real world would better position future business leaders to address management challenges related to the SDGs.

Second, universities can focus their efforts on deepening and strengthening the SDGs component of the institutions' mission (purpose and, more importantly, how it permeates learning and transformational activities in both the curricular and extracurricular activities of the organization.

Third, the leaders of these institutions can empower those within the institution in the position and with the motivation to drive SDGs-related learning initiatives.

Fourth, HEIs can use accreditation processes and membership in international labels as levers to introduce changes that lead to graduates with a clearer mindset and a stronger set of SDGs competencies.

2.2. Stages of work for the implementation of the SDGs

Taking these aspects into consideration, it is worth mentioning that one way to implement these levels of activity with the commitment to the SDGs is through the development of a series of work phases: Recognition, Opportunistic alignment, Organizing principle. Following this guide, these phases focus on the following aspects.

Recognition: It involves identifying and recognizing what the university is already doing in the field of SDGs. It looks at what is being done by looking at the people who are already working on specific subjects (professors, departments, research groups, educational innovation groups, student groups, etc.. There can also be an analysis of SDG advocates and allies among students, staff, clubs and societies; as well as a study of the level of sustainability knowledge and awareness (e.g., with surveys among students and staff.

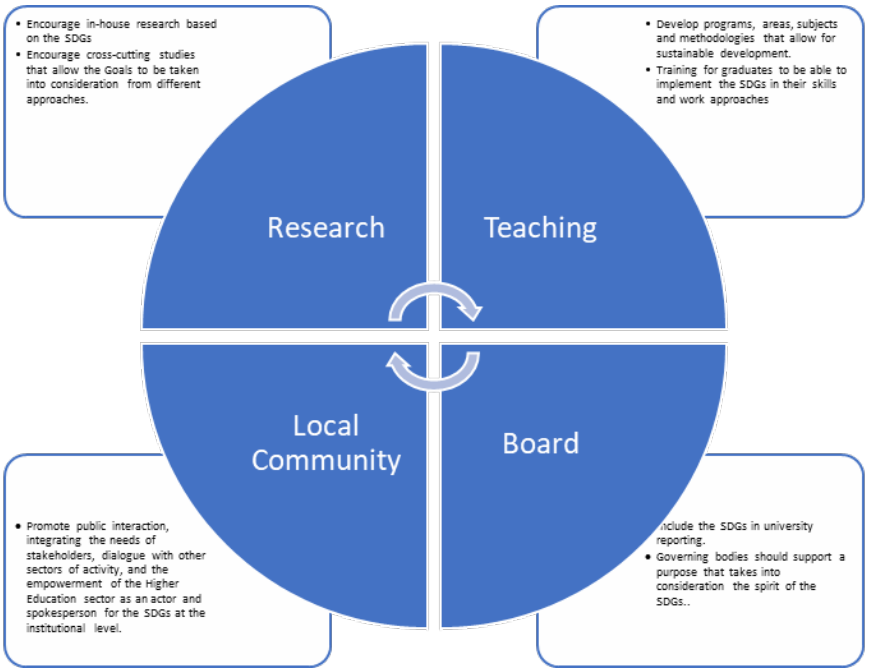
Opportunistic alignment: Different areas of the university recognize the usefulness and importance of the SDGs and find opportunities to apply in specific activities and programs, without an overall university strategy.

Organizing principle: The university as a whole commits to making the SDGs part of the regular activities of the institution and integrates this commitment into all relevant university governance structures and frameworks and undertakes a strategic process to determine how to maximize its contribution to the SDGs and provides sufficient resources and support to implement this strategy.

2.3. Working areas for the implementation of the SDGs in Higher Education

Taking into consideration the levels of activity and phases of work for the implementation of the SDGs, it is convenient to develop the specific areas of work where this prior commitment to the SDGs can be implemented.

Illustration 4 Areas of SDGs implementation in universities



Source: Own elaboration

Teaching. It is about developing programs, areas, subjects, and methodologies that enable sustainable development and training for graduates to be able to implement the SDGs in their skills and work approaches. This is an institutional strengthening of the commitment to the SDGs and requires mobilizing students and youth for the defense and achievement of the SDGs.

Research. It is necessary to internally encourage research on the basis of the SDGs, favoring cross-cutting studies that make the Goals be taken into consideration from different approaches. This involves institutional support for research and innovation that contemplate the SDGs in their approaches.

Board and operations. It is about including the SDGs in the university's reporting. In addition, considering what is described in the section on levels of activity, the governing bodies should support a purpose that takes into consideration the spirit of the SDGs.

Local Community. As key actors around the communities where they operate, HEIs need to promote public interaction, integrating the needs of stakeholders, dialogue with other sectors of activity, and empowerment of the HE sectors as an actor and spokesperson for the SDGs at the institutional level.

3. How to work SDGs in universities.

When working on the SDGs in universities, the first thing to be done is a diagnosis to determine the knowledge of the SDGs in the organization. To do this, it is necessary to establish the degree of maturity, for which a preliminary questionnaire is proposed, which will vary according to the following profiles proposed in this guide:

Institutional profile: these are staff in management positions at the university.

Professor profile: these are people involved in the training of university students. Depending on the link with the university, this group will also have research responsibilities.

Researcher profile: these are people whose main work is focused on the development of research projects in any area of knowledge, either in the university or in an R&D centre.

Depending on the results of the diagnosis, different areas of work will be proposed on which to focus. It is important to emphasize that the degree of prior knowledge will determine the speed at which the organization internalizes the SDGs, so it must be borne in mind that this is a medium and long-term task.

[Note to the design and programming team: the questionnaire should be programmed, both in the guide and on the website, according to three different profiles (institutional, teaching and research, so the questions will be different depending on which one is chosen].

3.1. Institutional profile

Please answer the following questions from your institutional role at the university:

[Note to the design and programming team: the following table needs to be programmed in the guide and on the website to be dynamic and return the results detailed below].

Question	Answer	Weight of each question
Is there a concern for social problems at my university?	Yes / No	1
Are there any volunteer programmes at the university?	Yes / No	1
Are there recycling or resource efficiency programmes?	Yes / No	1
Is there an equality, diversity, and inclusion policy at the university?	Yes / No	5
Is there a policy of transparency and accountability at the university?	Yes / No	5
Have you ever heard of the UN Sustainable Development Goals?	Yes / No	5
Is it known how the UN Sustainable Development Goals are represented?	Yes / No	5
Does the university have among its priorities to work on the Sustainable Development Goals?	Yes / No	10

Is there a formal commitment by the university to the Sustainable Development Goals?	Yes / No	10
Does the university appear in any sustainability-related rankings?	Yes / No	10
Have there been limited results in the first actions to raise awareness of the university's work in such work?	Yes / No	10

Results:

Levels of knowledge	Result
Basic	From 0 to 20
Medium	From 21 to 40
High	From 41 to 63

[Note to the design and programming team: the results should be displayed according to the score obtained, which will determine the level of each questionnaire].

According to the results of the questionnaire, the degree of maturity of the university in terms of SDGs is:

Basic level:

Assessment: the university has the basis to be able to establish a work plan that will allow the center to begin to publicize the Sustainable Development Goals.

Work proposals:

It is recommended to create an internal working group to formally recognize the university's interest in starting to work on CSR and to define a work plan with initial initiatives.

The first step would be to make a basic presentation outlining what the SDGs consist of to focus on those that are most accessible to the university.

Training workshops on the SDGs should be held for the different audiences of the organization, adding everything that the university already does and that is possibly unknown internally.

Medium level:

Assessment: the university has some awareness of the Sustainable Development Goals and there is an interest in taking a further step in its commitment.

Work proposals:

It is recommended that physical and digital signage be included in all the university's internal communication spaces to publicize the SDGs. The aim is for the academic community to increase its recognition of the different symbols of the SDGs.

It is proposed to begin to make internally visible all the work that the university has been doing on social and environmental issues. In this way, a link will begin to be established between the projects carried out and the SDGs with tangible facts that will help the association.

It would be necessary to conduct internal surveys to show the evolution of internal knowledge of the SDGs.

High level:

Assessment: there is an explicit commitment by the university to contribute to the Sustainable Development Goals.

Work proposals:

It is recommended that an annual report be drawn up summarizing the university's work on SDGs to be presented internally and externally, highlighting the impact of the activities carried out.

All the work carried out by the university on SDGs should be made visible externally, through corporate channels, to reach external stakeholders. The university's management should lead communication in this regard, assisted by the people responsible for developing the different initiatives that are made known.

It would be advisable to create alliances with other organizations with which to work on common issues to broaden the scope and impact of the areas of work on the SDGs.

3.2. Professor profile

Please answer the following questions from your role as a university lecturer:

[Note to the design and programming team: the following table needs to be programmed in the guide and on the website to be dynamic and return the results detailed below].

Question	Answer	Weight of each question
Is there a concern for social problems at my university?	Yes / No	1
Are there any volunteer programmes at the university?	Yes / No	1
Are there recycling or resource efficiency programmes?	Yes / No	1
Is there an equality, diversity, and inclusion policy at the university?	Yes / No	5
Is there a policy of transparency and accountability at the university?	Yes / No	5
Have you ever heard of the UN Sustainable Development Goals?	Yes / No	5

Is it known how the UN Sustainable Development Goals are represented?	Yes / No	5
Does the university have among its priorities to work on the Sustainable Development Goals?	Yes / No	10
Do you recognize any sensitivity or concern among students towards social and environmental issues?	Yes / No	5
Have your students ever heard of the Sustainable Development Goals?	Yes / No	5
Do you know if your students are concerned about any specific issues addressed by the SDGs (poverty, climate change, equality, etc.)?	Yes / No	10
Have you incorporated any theoretical and practical content that can be related to social and environmental issues?	Yes / No	10
Have practical activities been developed in the classroom related to social and environmental issues?	Yes / No	10
Have any activities been implemented outside the classroom related to social and environmental issues?	Yes / No	10

[Note to the design and programming team: the results should be displayed according to the score obtained, which will determine the level of each questionnaire].

Results:

Levels of knowledge	Result
Basic	From 0 to 30
Medium	From 31 to 60
High	From 61 to 83

According to the results of the questionnaire, the degree of maturity in terms of SDGs is:

Basic level:

Assessment: university teachers and students share an initial sensitivity towards social and environmental issues, but no SDG-related activities have been implemented in class.

Work proposals:

If the professor teaches several different subjects, it is recommended to start with one of them. From there, an in-depth study should be made of the SDGs in relation to the theoretical and practical content of the subject, to detect where the areas of work may lie.

Once the potential areas of work have been detected, it would be advisable to select the one that has the best chance of being feasible with the available resources. The aim is to have a short-term result that will motivate the team to continue working on the SDGs. For example, you can start with simpler activities such as class discussions, news analysis, watching videos, etc.

To generate motivation in the classroom, it is suggested that students choose which area to work on from a limited number of options provided by the teacher.

Medium level:

Assessment: professors and students have developed in class some specific activity related to the SDGs and the subject.

Work proposals:

Following the results, the teacher could incorporate the activities in other subjects or expand the proposals for classroom work. Evaluable activities can be proposed where an SDG theme is incorporated into the practical content of the class. For example: statistical exercises can be carried out using data from the sustainability reports of different companies; NGO advertising campaigns can be proposed; in engineering, water recycling systems can be designed; prototypes of houses can be made using recycled materials, etc.

To motivate students, you could work with real cases, so that someone responsible for the organization you are working on could come to the class to explain the case and then come back to discuss the results.

The professor could consider teaching stays in other countries that are carrying out similar initiatives to share experiences.

High level:

Assessment: there is a clear commitment among university teachers and students to incorporate activities related to the SDGs. It is time to try to find a line of work that can have continuity over time, even if the students are in other courses.

Work proposals:

The professor could consider presenting the initiatives developed at a congress or scientific publication of a teaching nature to share the initiatives carried out and the results with the community.

It would be interesting to share the results with stakeholders (associations, other centers, administrations related to the line of work developed with the students. The aim would be for the students themselves to be able to present these results to motivate them to continue with the project.

It is recommended that the work carried out in the classroom be made visible. To do so, it is recommended to contact the organization's communication department. To motivate students, priority could be given to dissemination activities on the university's corporate social networks.

3.3. Researcher profile

Please answer the following questions from your role as a researcher at the university or R&D center:

[Note to the design and programming team: the following table needs to be programmed in the guide and on the website to be dynamic and return the results detailed below].

Question	Answer	Weight of each question
Is there a concern for social problems at my university or R&D center?	Yes / No	1
Do you know if there are any volunteer programmes at the university or R&D center?	Yes / No	1
Do you know if there are any recycling or resource efficiency programmes?	Yes / No	1
Do you know if there is an equality, diversity and inclusion policy?	Yes / No	5
Do you know if there is a policy of transparency and accountability?	Yes / No	5
Have you ever heard of the UN Sustainable Development Goals?	Yes / No	5
Do you know if the university or R&D center has among its priorities to work on the Sustainable Development Goals?	Yes / No	10
Do you recognize any sensitivity among your research team to social and environmental issues?	Yes / No	5
Do you consider that social and environmental issues are becoming more and more important in the publication of public and private research calls?	Yes / No	5
Do you think that, for some time now, journals in your area of knowledge have become more sensitive to research that deals with social and environmental issues?	Yes / No	5
Have you tried to address any social and environmental issues in your research?	Yes / No	10
Are you planning to develop specific research on social and environmental issues?	Yes / No	10
Are you involved in any research on social and environmental issues?	Yes / No	10

[Note to the design and programming team: the results should be displayed according to the score obtained, which will determine the level of each questionnaire].

Results:

Levels of knowledge	Result
Basic	From 0 to 25
Medium	From 26 to 50
High	From 51 to 73

According to the results of the questionnaire, the degree of maturity in terms of SDGs is:

Basic level:

Assessment: there is some sensitivity to issues related to the Sustainable Development Goals.

Work proposals:

An in-depth study of the SDGs and specific areas of work is recommended to detect where the areas of work may lie.

Once the potential areas of work have been identified, it is advisable to select the one that has the best chance of being achievable with the available resources. The objective is to have a short-term result that motivates the team to continue working on the SDGs.

It would be interesting to look for a conference where the preliminary results of the research to be launched could be presented.

Medium level:

Assessment: the research community in the knowledge area recognizes the relevance of social and environmental issues. Now is the time to focus efforts on these issues to boost research in these areas.

Work proposals:

The search for cross-cutting scientific publications whose scope combines the research team's area of specialization and the topics being worked on in relation to the SDGs could be considered.

The researcher could consider carrying out research stays in other centers that are developing similar lines of research on SDGs, to enhance their knowledge and try to accelerate the results.

It would be interesting to look for national, supranational, or international calls for proposals to try to obtain funding to implement research projects to solve a specific problem proposed by the SDGs.

High level:

Assessment: the research team has a real commitment to the SDGs and is working to address specific concerns.

Work proposals:

It is recommended to try to make the work carried out visible to serve as an example to the rest of the research community. To this end, it is proposed:

Talk to the center's communication department (if there is one so that the results can be communicated to the media. In addi tion, it would be useful to assess what content can be transformed into other formats such as infographics, videos, posts, reels, or podcasts, for example.

It would be interesting to organize bilateral meetings with related institutions (associations, other research centers and universities, etc., private sector companies and regulatory bodies (local, national, and supranational to share the results and discuss t heir scope and implications.

The research team could consider applying for national and international awards that recognize their work.

[Note to the design and programming team: the following paragraph would close the results of all levels of the three profiles described].

Finally, it is important to emphasize that the work requires monitoring of the results to be able to evaluate its evolution and modify those aspects that are considered relevant.

4. Integrating SDGs into curriculum.

To accelerate the education of SDGs in universities: Transversal Skills and Key Competences, Key Sustainable Development Issues, Understanding the SDG Framework, Profession-Specific Knowledge and Skills, Mindsets, Networks.

The SDGs offer numerous and diverse opportunities for real-life learning in all thematic areas, enabling young people to learn, think about, and take action on global issues. Here are some practical ideas to provide some inspiration. Many of these examples could easily be adapted for younger or older students.

4.1. Strategic Axes of SDGs in the curricular environment.

We propose marking 4 objectives to be implemented in the curricular environment regarding SDGs. These objectives must be the key ingredients implemented in the environment correctly and must be sufficiently prepared prior to such implementation.

identify where the value is; in this sense, the centers must carry out informative and awareness-raising tasks, detailing why it is necessary to integrate SDGs into the curriculum, either through training or meetings that connect academic agents. It is essential that these projects stem from and have visibility and value in the pillars of the organizations.

Implement tools that are necessary for the development of these actions, that is, generate the spaces and logistics necessary for educational agents to develop these curricular actions, adjusting to the needs of the centers.

Sharing projects through collaboration networks through educational institutions that should promote lines of action and share the actions and results thereof, to provide feedback on such actions and promote active networks among other centers who are developing the implementation of SDGs.

Integrate SDGs into academic pedagogy, where teachers promote actions or request training to achieve integration in any area they teach.

Agents and measurements.

Educational institutions should take into account that this project implies commitment from all members of the educational centers in question.

They should contribute to making the commitment of the centers to the 2030 Agenda effective.

The mission of disseminating and integrating SDG content into teaching practice involves several groups within institutions with sufficient flexibility to align with the principles of the 2030 agenda.

This involves and affects the three main groups or collectives in the University environment: PDI, the student body, and PAS. Each of these groups has specific functions and tasks, so the incorporation of the 2030 Agenda affects them differently.

At this point we are going to focus on the responsibility of the Teaching Group and Research Staff, with the idea of promoting actions focused on this group through different tools, to facilitate the progressive incorporation of the principles and contents of the 2030 Agenda in university education.

Consequently, this document hopes to contribute to this commitment, encouraging the PDI of the centers attached to this project to learn about the 2030 Agenda and have the tools to ensure the teaching given is in accordance with the contents and principles of the 2030 Agenda.

Taking into account the global dimension of the 2030 Agenda, given its larger scope than the Kyoto protocol, where more nations committed themselves to maintaining an environmental balance, thus contributing to human progress, this project proposes the global integration of the SDGs in schools through the curriculum, and including them in the teaching guides and the development of competences where relevant.

The 17 objectives can be treated in a transversal way in each one of the disciplines as, starting from these 3 main axes of MEASURES, the teacher will be able to evaluate them, according to their teaching methods while deciding what elements they want to highlight.

Measurement items related to the SDGs:

Measure 1(M 1 : poverty eradication.

Measure 2 (M2: nature protection

Measure 3(M3: ensuring peace and prosperity for all people by 2030.

From these 3 main axes, the materialization of these SDGs is promoted, through 3 tools that can be transformed into 3 types of ACTIONS.

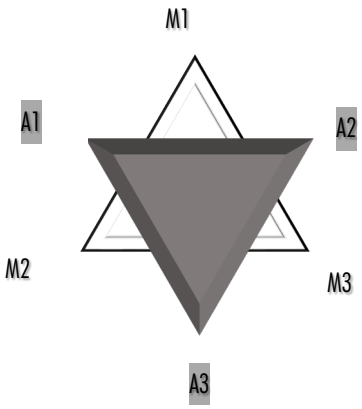
Action 1 (A1: solidarity

Action 2 (A2: sustainability

Action 3 (A3: development aid.

There must be a balance between the measures and actions carried out in order to obtain satisfactory results in line with the SDGs of the 2030 agenda.

Illustration 5 – Measures and actions SDGs implementation.



Source: Own elaboration

4.3. Areas related to teaching disciplines.

Through these thematic lines we want to bring the SDGs to all disciplines. Relationships should be developed by teachers, according to their areas of knowledge, linking the SDGs to curriculum requirements.

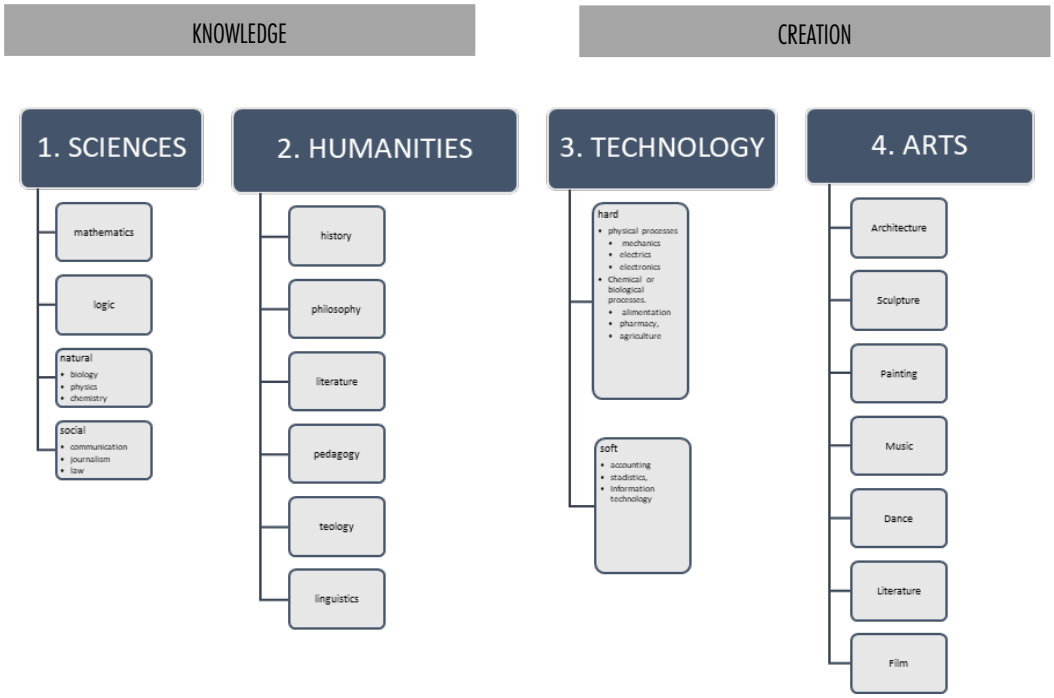
It is important that students and teachers know the classification systems, because when reading or developing theoretical or conceptual frameworks it is essential to know how to locate the research carried out, even when the research belongs to areas of knowledge not identified as scientific, since there are disciplines that are not considered to be sciences, such as technologies, humanities, services, high-profile crafts and the arts (Bunge, 2012. The humanities and the arts are closely related, but the former seek to learn about and interpret reality, while the latter seek to create and transform it (Jasso, 2021.

This approach through thematic areas makes the transversality of the SDGs visible and allows for adaption to each context. We visualize the thematic areas as a flexible mechanism for the understanding of the objectives and for their implementation through actions by the educational agents involved.

Thematic Areas:

KNOWLEDGE: SCIENCES & HUMANITIES

CREATION: ARTS & TECHNOLOGY



Source: Own elaboration

4.3.1. Knowledge

Taking into account the measures and actions described in FIG 1, we want to detail some of the activities that can be carried out within the field of knowledge, this being the central element of knowledge societies and whose definition, issued by UNESCO is "the **capacity to identify, produce, process, transform, disseminate and use information to create and apply the knowledge necessary for human development**" (UNESCO, 2005.

To this end, flexible activities, to be included within the academic guides of the subjects, are proposed.

Reflecting on the differences between needs, desires, and rights. Consider what we need to do "right" in life and how these needs relate to the SDGs. See Oxfam's child rights resource for some creative classroom activities.45 (All SDGs

Use the SDGs to support reflection on how useful it is to set goals. Consider what success means: will the SDGs only be successful if they are fully achieved? Give value to qualities such as resilience, teamwork, and adaptability at work in the pursuit of objectives. (All SDGs

Think critically about how the choices we make as consumers affect the economies, environments, and work lives of others. (SDGs 3, 8, 12 and 13

Investigate and compare the characteristics of famines throughout history to the present day. (SDG 2

Research significant events that have happened in relation to gender equality around the world and throughout history and consider the importance of individual and collective action to achieve it. (SDG 5

Study the positive and negative impacts of industrialization on society. This could be local, national and/or global.

Think critically about possible future scenarios and the role of industry, innovation, and infrastructure in their creation. (SDG 9

Use the context of sport to think about how equity relates to rules. Consider the rules of sports regulations, to achieve inclusivity, promoting sports events emphasizing "fair play" where everyone can participate. (SDGs 10 and 16

Consider the role and importance of a balanced diet and exercise in promoting good health and well-being. (SDG 3

Develop students' understanding of the importance of teamwork to build trust between people and solve problems. (SDG 17

Examine the role of faiths and religious organizations in working towards poverty alleviation. (SDG 1

Use different ideas about creation to stimulate reflection and debate about the vision students have for their communities, both now, and in the future. (SDG 11

4.3.2.Creation.

The word creation derives from the Latin *creatio*. Creation is understood as the action and effect of inventing, establishing, or instituting something that previously did not exist or have a precedent.

Through creation, everything that arises in an unprecedented and original way is known. Human beings are the only living beings capable of creating objects, theories, artistic works, technological equipment, as well as instituting and establishing jobs and management methods amongst other acts of creation. Hence, creation arises from the creativity of individuals capable of generating a diverse range of objects like producing works, founding a company, or establishing work projects that fulfill a specific function, either resolving or solving a problem, facilitating a task, or seeking well-being, amongst other things.

Below is a list of activities for the acquisition of these skills with a proposal of a series of versatile activities which can be introduced into the curricular content from both technological and artistic areas.

Explore the impacts of technology, both positive and negative, on people, communities, and our planet. Considering issues related to the production, consumption, and disposal of everyday items, e.g. mobile phones. Observing the current and potentially positive role of technology in raising awareness of the SDGs and addressing global challenges. (SDG 12

Develop computational thinking, applications, and creativity to understand and address real-world challenges. Students can collect and analyze local weather and climate data and use it to inform recommendations for action that could be taken locally to combat climate change. (SDG 13.

Use virtual classroom tools to allow students to connect and share their ideas with young people from other parts of the world. (All SDGs

Create systems or technology for your local area that contribute to achieving the objectives of one or more of the SDGs. (All SDGs

Analyze ethical and sustainability issues in food systems, and the social, economic, environmental, and political factors affecting nutrition. (SDG 2

Use art as a means to express opinions, ideas and desires about the future of our environment. Inspired by artists, Students can recreate and generate new perspectives and plans that can materialize in classroom projects that can be shared with their local government representative or planning department. Citizenship. (SDGs 7, 11, 12, 13, 14 and 15

Search for references from artists and authors on education on the Internet and use them to stimulate critical thinking about what it means to have a high-quality, inclusive, and equitable education. Students could conduct an audit of their own school's inclusion and equity and consider ways to make improvements. (SDGs 4 and 5

Discuss and decide what the priorities are for your community before considering possible approaches to making positive changes. (All SDGs

Think about different ways to make work dignified, including wages, health, safety and well-being, gender equality, and work-life balance, for example through the work of trade unions to defend labour rights. (SDG 8

Consider the role of music in challenging social injustice throughout history to the present day (SDG 16

5. Methods for teaching and learning.

From the set of 17 global goals established by the United Nations in 2015 to address various social, economic and environmental challenges and achieve sustainable development by 2030, SDG number 13 focuses specifically on "Climate Action" and will serve to illustrate an example of how to approach the dissemination of knowledge to university professors so that they can contribute to disseminate this knowledge, making it an explicit or implicit part of their course programs. In fact, although this is not intended to be exhaustive, climate change affects numerous scientific disciplines due to its wide-ranging impacts on the Earth's systems and the interconnectedness of various natural and social processes. Here are several scientific disciplines that are particularly affected by climate change:

Climatology and atmospheric Science.

Ecology, biology, and related sciences, including oceanography.

Health Sciences, including human and ecosystem.

Geology, glaciology or hydrology.

Agricultural Sciences.

Social Sciences, including sociology, economics, and political science, migrations, socio-economic disparities, and policy responses.

The reasons are that SDG 13: Climate Action, aims to combat climate change and its impacts by taking urgent action to reduce greenhouse gas emissions and promote climate resilience. It recognizes that climate change poses a significant threat to sustainable development and requires immediate attention. In brief, SDG 13, refers to mitigate greenhouse gas emissions, build adaptive capacity to cope with the impacts of climate change, calls for increased investments in climate change mitigation and adaptation, as well as funding to assist developing nations in the transition to low carbon societies.

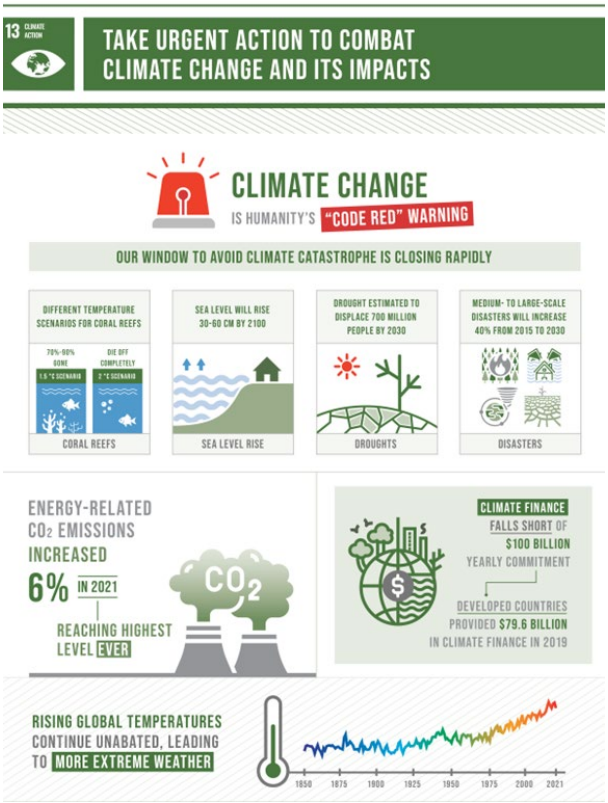
But all this effort is impossible without awareness raising and education because one of the main goals of the objective is to stress the importance of raising awareness of climate change and its impacts. In fact, encourages education and training initiatives like this one, to promote understanding of climate issues and empower individuals and communities to take climate-friendly action.

Raising awareness of climate change among university professors requires a comprehensive and well-planned approach, so that they can transmit this sensitivity to their students who are part of future generations and are the ones who will be most interested in preserving this planet for future generations.

Although university professors are experts in their respective fields, they may not have in-depth knowledge of climate change. In this sense, it is necessary to approach the discourse in a scientific way, so that in this way there can be an object of discussion between the possible supporters or detractors of the idea. For this reason, it is necessary to adapt the discourse and content to their level of knowledge, while still providing the necessary basic information and scientific context.

To provide a sound scientific basis, it is necessary to explain the basic concepts of climate change, such as the greenhouse effect, the carbon cycle and the role of human activities. In this regard, the SDG 13 definition itself contains a summary of all these concepts.

Illustration 6. Summary of the different negative impacts of climate change.



Source: https://sdgs.un.org/sites/default/files/2022-07/SDG%20Report%202022_Goal%2013%20infographic.png

Once the basic principles are understood, use authoritative scientific sources, peer-reviewed articles, and reports from organizations such as the Intergovernmental Panel on Climate Change (IPCC (https://www.ipcc.ch/ to provide accurate and up-to-date information.

Given the scientific focus of the recipients of this information, it is very enriching to have an interdisciplinary approach: Due to the interdisciplinary nature of the essence of climate change. Highlight how climate change affects diverse fields such as biology, ecology, economics, social sciences, and public health. It is very enriching to invite faculty from different disciplines to participate in these sessions to collaborate and explore climate change from their disciplinary perspectives.

To ensure optimal reception of the message among the various stakeholders, it is necessary to encourage critical thinking. Critical thinking and scientific inquiry must be encouraged; in fact, it is necessary to ask questions, challenge assumptions and engage in discussions in which all parties are present. For the correct development of the activities, it is necessary the search, study and critical analysis of scientific data, reports, including those that are more controversial, so that from different perspectives, it is possible to consider the implications of climate change within their fields of study and the future consequences in the professional field of students, as educators in university cycles.

To achieve this goal, it is necessary to engage the various actors, incorporating experiential learning activities to enhance understanding and engagement. This can include data analysis, secondary source research and case studies. These hands-on experiences can help faculty connect climate change concepts to real-world situations and make the learning process more engaging and memorable. This outcome will only be achieved especially if professors engage in and encourage discussions and Q&A sessions to facilitate dialogue and address specific concerns or questions.

In addition, is necessary to acknowledge that climate change can be a controversial topic. Professors should critically evaluate sources of information and differentiate between reputable scientific research and misinformation address any misconceptions or skepticism by presenting scientific consensus on climate change and its causes. But without neglecting the fact that the level of predictive science and the historical series available could lead to premature conclusions.

But, while it is essential to discuss the challenges posed by climate change, also emphasize solutions and mitigation strategies. Present examples of successful initiatives, innovative technologies, or beneficial policy interventions. Encourage the actors to explore potential solutions within their respective disciplines and research interests.

And finally, stay updated because climate change science and understanding are constantly evolving. Encourage professors to stay updated on the latest research, reports, and policy developments.

We want to emphasize that climate change is a global challenge that requires collective action. Encourage faculty to act both individually and collectively and support the formation of interdisciplinary groups or initiatives focused on climate change and foster collaboration between departments and faculties to integrate climate change into curricula.

As a conclusion, we recognize that climate change is a pressing global challenge that demands united efforts. We strongly encourage professors to take action both individually and collectively to address climate change in their teaching, research, and institutional practices. Additionally, we support and encourage the formation of interdisciplinary groups or initiatives within universities that are specifically focused on climate change. By fostering collaboration between departments and faculties, we aim to integrate climate change across the curriculum, ensuring that students from various disciplines gain a comprehensive understanding of this critical issue.

Together, as educators and researchers, we can actively contribute to the collective response to climate change and prepare the next generation to tackle its complex challenges.

By following these best practices, university professors can develop a deeper understanding of climate change and effectively integrate this important topic into their teaching and research activities.

6.Best Practices (ANNEX I.

7.References (APA 7.

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