The 2030 Agenda in Spanish universities: sustainability and its communication

La Agenda 2030 en las universidades españolas: sostenibilidad y su comunicación

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ABSTRACT: From global to local, many actors in society contribute to ending poverty, building democratic governance, the rule of law and inclusive institutions. In universities, relations with their publics, through responsible activities or actions, seek to achieve the sustainable development of their environment. This research analyzes the development and progress of Spanish universities in their contribution to the goals of the 2030 Agenda. With this starting point, this paper aims to determine the degree of implementation of the SDGs as well as the communication that has been carried out to disseminate them through their different audiences. For this purpose, the content analysis method is used, analyzing the social responsibility or sustainability reports, and the actions or indicators of the SDGs are located on the official sites of the 77 Spanish universities in their relations with their publics. The main results show that the university community is the group most present in the social and sustainable impact of the institutions. On the other hand, the environmental dimension is the least worked and the communication of the SDGs is at a very early stage.

Keywords: 2030 Agenda; SDGs; spanish university; public relations; content analysis.

RESUMEN: Desde lo global a lo local, muchos actores de la sociedad contribuyen a acabar con la pobreza, construir la gobernabilidad democrática, el estado de derecho e instituciones inclusivas. En las universidades, las relaciones con sus públicos, a través de actividades o acciones responsables, buscan alcanzar el desarrollo sostenible de su entorno. Esta investigación analiza el desarrollo y avance de las universidades españolas en su contribución a los objetivos de la Agenda 2030. Con este punto de partida, este trabajo tiene por objetivo el grado de implementación de los ODS así como la comunicación que se ha realizado para difundirlo a través de sus diferentes públicos. Para ello, se utiliza el método de análisis de contenido, analizando las memorias de responsabilidad social o sostenibilidad, y se localizan las acciones o indicadores de los ODS en los sitios oficiales de las 77 universidades españolas en sus relaciones con sus públicos. Los principales resultados apuntan a que la comunidad universitaria es el colectivo más presente en el impacto social y sostenible de las instituciones. Por otra parte, la dimensión medioambiental es la menos trabajada y la comunicación de los ODS se encuentra en una fase muy incipiente.

Palabras clave: Agenda 2030; ODS; universidad española; relaciones públicas; análisis de contenido.

1. Introduction

1.1. The Sustainable Development Strategy

In 2015, the United Nations (UN) approved the Sustainable Development Goals (SDGs), a global action plan that was endorsed by more than 170 countries and territories. This initiative, which consists of 17 objectives and 169 goals, aims to establish actions and challenges focused on eradicating poverty, reducing inequalities and exclusion, and fostering resilience so that countries can make progress in achieving these goals (UN, 2015a; UN, 2015b).

From the global to the local, many actors in society contribute to ending poverty, building democratic governance, the rule of law and inclusive institutions. These objectives are projected from 5 strategic axes: People, Prosperity, Planet, Peace and Partnerships; and operate in the social, economic and environmental dimensions. They also involve the UN, the EU, national, regional, provincial and local governments, federations of municipalities, civil society organizations, businesses, universities and liberal professionals. Meanwhile, the European Commission (EC) establishes as priorities¹: European Green Pact; Economy that works for people; Europe fit for the digital age; European way of life; A stronger and more democratic Europe in the world.

The 2022 progress report of the 2030 Sustainable Development Strategy² outlines the accelerating policies for each of the SDGs.

These policies have an impact on how governments can contribute to their progress by establishing measures and creating public policies.

At the regional level, regional and local governments, as actors of change, are also showing their cooperative commitment to the development of the 2030 Agenda. With strategic axes in scorecards, which contribute to sustainable development in its three dimensions, there are many and diverse initiatives included in the sustainable development strategy³.

The 2030 Agenda Action Plan (Gobierno de España, 2018) and the 2022 Progress Report of the Government of Spain's Sustainable Development Strategy (Ministerio de Derechos Sociales

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 $^{^1\} https://commission.europa.eu/strategy-and-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-approach_en-policy/sustainable-development-goals/eu-whole-government-goals/eu-whole-goals/eu-who$

² Ministry of Social Rights and 2030 Agenda. https://www.crue.org/wp-content/uploads/2022/11/IP22_EDS2030_SP.pdf

³ https://www.mdsocialesa2030.gob.es/agenda2030/documentos/IP22_AC.pdf

y Agenda 2030, 2022) include the involvement of substate governments⁴ (Table 1). The strategy, policies, plans and actions with updated information on each of them can be consulted on their websites.

Table 1. Summary table of regional Sustainable Development Strategies

Andalusian SD Strategy 2030 (EADS 2030)	It contains 13 strategic areas, including health, education, natural resource management, climate change and rural development.
Aragonese SD Strategy (EDSA)	It aims to involve the largest number of actors from civil society and the private sector and to act as a link between all the administrations: universities, city councils, counties and provincial councils.
Government of the Balearic Islands (GOIB)	Any action drives all strategic measures aimed at achieving the goals set out in the 2030 Agenda.
Canary Islands SD 2030 Agenda	It includes initiatives and plans that respond to leveraging policies among various institutions and agents in the fulfillment of the 2030 Agenda.
Strategy for Sustainable Human Development of the Autonomous Community of Cantabria 2018- 2030.	It was born with the intention of designing the roadmap for the implementation of the 2030 Agenda in Cantabria. Its strategic axes link all priority agents for its achievement.
Strategy 2030 of Castilla-La Mancha	It aims to make visible, raise awareness and convey the importance of achieving the SDGs, as a tool for inter-administrative coordination and social participation.
Strategy for the SD of Catalonia	It sets out the roadmap that establishes the key strategic lines and objectives to ensure Catalonia's transition to a safe, eco-efficient and low-carbon economy, based on the efficient consumption of resources and the minimization of impacts on health and the environment in Catalonia and the world.
Action Plan for the Implementation of the 2030 Agenda of the Valencian Community	It shows the region's commitment to policies and measures based on three vectors of action: Inform, Raise Awareness and Commit.
Extremadura	The roadmap includes the governance framework of the 2030 Agenda, the strategy for the promotion of the PCD/Agenda 2030 in Extremadura and the mapping/action lines for the localization of the SDGs and promotion of the 2030 Agenda in this region.
Strategic Plan for SD in Galicia	It defines the priorities and commitments in terms of SDGs and includes a system of indicators to measure their evolution and degree of compliance.
Community of Madrid	The Council for the Development of the 2030 Agenda has the purpose of deepening the development of measures that guarantee the fulfillment of the 2030 Agenda in the regional territory and has all the social actors of the Community and its progress in the fulfillment of indicators can be found in the INE Database.
Action Plan for the 2030 Agenda of the Region of Murcia	It publishes the progress achieved, the measures adopted and the participation of social agents in the strategy implementation process.
Action Plan for SD in the Community of Navarre	It includes indicators, follow-up reports and a communication plan for its dissemination, including an indicator viewer.
Basque Program of Priorities of the 2030 Agenda	It promotes a multilevel collaboration and boosts institutional alliances with civil society and publishes an annual report on the fulfillment of the Plan.
Strategy for contributing to the SDGs of the Government of La Rioja	Commitment to shared leadership between the region's institutions and social agents to develop coherent public policies with a responsible distribution of resources.
Government of the Principality of Asturias	It disseminates information on the actions developed for each of the indicators of the 17 goals of the 2030 Agenda.

Source: Own elaboration based on DHS (2022) and regional government websites.

Regional and local governments coincide in their sustainable development strategies in the creation of plans. They highlight measures in different areas of the social, economic and

 $^{^{4}} https://transparencia.gob.es/transparencia/dam/jcr:6e0f06b9-a2e0-44c0-955a-dad1f66c11d7/PLAN%20DE%20ACCI%C3%93N%20PARA%20LA%20IMPLEMENTACI%C3%93N%20DE%20LA%20AGENDA%202030.pdf$

environmental aspects of the 2030 Agenda. These are intended to respond to the needs arising from the problems of individuals and the planet, with the aim of achieving prosperity and peace in society through partnerships and collective cooperation. In general, there is a consolidation of strategies and a move away from isolated actions (EDS, 2022).

Deepening into the commitment of the different regions that make up the Spanish context, autonomous communities such as the Basque Country, the Valencian Community, Aragon, the Balearic Islands, the Canary Islands, Cantabria, Andalusia, Asturias and Galicia already report data on the level of achievement and implementation of the SDGs. However, it should be noted that data is still lacking from the rest of the regions and from those we have mentioned, the degree of information and reporting on achievement is uneven: while the Basque Country reports more than 100 reports with information on the different SDGs, the rest of the communities only provide one report. We will have to continue to monitor all the information provided in order to establish not only its implementation but also the degree to which it has been achieved (Ministerio para la Transformación Digital y de la Función Pública, 2024).

In addition, the report highlights the leading role of the University which, as an institution committed to society, is no stranger to the challenges and accelerating policies of the SDGs. Therefore, the transversality of this sector means that it is present in many of the policies with a clear educational focus (the achievement of sustainable cities, food security, environmental protection, sustainable economic growth or the strengthening of inclusive and peaceful societies) (EDS, 2022, p. 448).

1.2. The Strategy for the 2030 Agenda in Spanish universities

In this implementation framework, in which interconnections between policies and cooperative and collaborative work between institutions and social actors are necessary, universities play a transcendental role in the social, economic and environmental commitment of their environment.

The Commission for the 2030 Agenda of the CRUE Spanish Universities has elaborated a proposal for implementation actions for universities in their contribution to sustainable development⁵. The involvement in the 2030 Agenda in the university context has a dual perspective: how the SDGs impact on the development of universities and what universities contribute to the development of the SDGs.

The four levers that enable universities to develop the SDGs and thus contribute to the UN goals (Figure 1) are research, education, management and governance model, and social leadership. The SDGs provide an opportunity to link these dimensions, which together enable universities to contribute to the development of these goals (SDSN, 2017).

To this end, the sustainable development strategies of universities need the interconnection of policies and the establishment of plans that allow them to contribute to the 2030 Agenda, localizing the SDGs in their corporate behavior with their different publics and in alliance with other social actors.

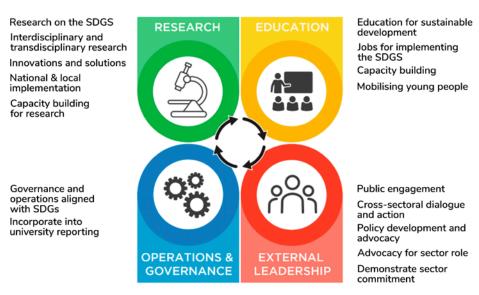
For this reason, university policy or strategy must align its objectives with the SDGs, for which requires replacing the management by objectives model with the management by impacts model (Vallaeys and Álvarez-Rodríguez, 2022). Education and research play essential roles in providing the opportunity to share the multidisciplinary transfer around the SDGs: internally, the student body by educating, raising awareness and involving them in sustainable development from any branch of knowledge in their training as future professionals and citizens; and research, in addition to enriching scientific progress, provides sustainability measures, initiatives or

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⁵ https://www.crue.org/wp-content/uploads/2021/01/Informe_Universidades_Crue-Agenda2030.pdf

solutions from the global to the most local level; externally, universities engage in dialogue and create links with their environment, whether they are other universities, public institutions, the business world, civic organizations, governments or the media, in their public commitment or social leadership.

Figure 1. An overview of university contributions to the SDGs



Source: SDSN Australia/Pacific (2017). Getting started with the SDGs in universities: A guide for universities, higher education institutions, and the academic sector. https://ap-unsdsn.org/wp-content/uploads/University-SDG-Guide_web.pdf (p.10).

All in all, the university is an agent of social transformation in relation to the SDGs because, in addition to its educational role, it assumes a fundamental role as an agent of awareness, sensitization and communication in the implementation of the SDGs (García Caballero & Herranz de la Casa, 2021). The Sustainable Development Strategy (SDS) rests on 8 axes that follow policies to accelerate the implementation of the SDGs (Table 2).

Table 2. Challenges, accelerating policies and SDGs

CHALLENGE	POLICY ACCELERATOR	SDG		
Ending poverty and inequalities.	Social transition. Redistribution of wealth and guaranteeing rights.	1, 2, 3, 4, 5, 8, 9, 10, 12, 13, 16 and 17		
Addressing the climate and environmental emergency.	A country that respects the planet's limits.	2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14 and 15		
Closing the gender inequality gap and ending discrimination.	Free and equal lives for all.	1, 2, 3, 4, 5, 8, 9, 10, 12, 16 and 17		
Overcoming the inefficiencies of an excessively concentrated and dependent economic system.	A new economic and productive 4, 5, 7, 8, 9, 13, 14 and 15 model that is green, digital and fair.	4, 5, 7, 8, 9, 13, 14 and 15		
Ending job insecurity.	Quality and stability of employment.	1, 3, 4, 5, 8, 9 and 10		
Reversing the crisis in public services.	Strengthened public services for a democratic and resilient welfare state.	1, 2, 3, 4, 5, 8, 9, 10, 11 and 16		
Ending global injustice and threats to human rights, democratic principles and the sustainability of the planet.	International leadership for a fair, sustainable, egalitarian, democratic and human rightsbased globalization.	1, 2, 3, 4, 5, 7, 8, 9, 11, 12, 13, 15 and 17		
Revitalizing our rural environment and facing the demographic challenge Social and territorial cohesion.	A rural environment with equal rights and opportunities.	1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13 and 15		

Source: Own elaboration based on the Sustainable Development Strategy (SDS).

In the process of universities' contribution to sustainable development, they must commit themselves to:

- 1. Knowing and identifying what is already being done (mapping).
- 2. Taking ownership of the 2030 Agenda by developing internal capacity and leadership of the SDGs.
- 3. Identifying priorities, opportunities and weaknesses.
- 4. Integrating, implementing and mainstreaming the SDGs into University strategies, policies and plans.
- 5. Monitoring, evaluating and communicating its actions with respect to the SDGs (SDSN, 2017, p. 3).

To this end, the proposals for action of the CRUE Universities 2030 Agenda Commission for each of the SDGs would contribute to the implementation of these eight strategic axes (Table 3).

Table 3. Proposals for sustainable actions for universities

		1			
SDG	Accelerating Policies of Sustainable Development Strategy (SDS)	Proposals for Action for Universities	SDG	Accelerating Policies of Sustainable Development Strategy (SDS)	Proposals for Action for Universities
1 ¹⁵ Pontery	1, 3, 5, 6, 7 and 8	Grants and scholarships or increasing the assumptions for extending tuition payment deadlines, among others (Crue, 2021, p.4).	10 REMOTE NEGATIVES	1, 3, 5, 6 and 7	Implement and reinforce plans for disability care, gender equality and prevention and action against harassment, among others (Crue, 2021, p.8).
2 ZINO HONGER	1, 2, 3, 6, 7 and 8	Food donation campaigns to food banks, among others (Crue, 2021, p.4).	11 SUSTAINABLE CITIES AND COMMUNITES	1, 2, 6 and 7	Sustainable mobility plans on university campuses, among others (Crue, 2021, p.8).
3 GOOD HEALTH	1, 2, 3, 5, 6, 7 and 8	Healthy Universities or Occupational Risk Prevention, among others (Crue, 2021, pp.4-5).	12 SESPONGIBLE CONSUMPTION AND PRODUCTION	1, 2, 3 and 7	Normalize responsible consumption: Fair trade products in university stores, among others (Crue, 2021, p.9).
4 COULTY EDUCATION	1, 2, 3, 4, 5, 6, 7 and 8	Promote inclusive education and transversal competencies for global citizenship, among others (Crue, 2021, p.5).	13 ACTON	2, 4 and 7	Development and implementation of strategic plans to reduce emissions and waste, among others (Crue,2021, pp.9-10).
5 cools	1, 2, 3, 4, 5, 6, 7 and 8	Promote the inclusion of the principle of gender equality as a principle of action in university governance and strategy, among others (Crue, 2021, pp.5-6).	14 BELOW MATER	2, 4 and 7	Promote plastic collection projects on coasts, rivers and lakes, among others (Crue, 2021, p.10).
6 CLEAN HATTER AND SANITATION	2	Intelligent systems in sources that increase the efficiency of water use, among others (Crue, 2021, p.6).	15 the through the	2, 4 and 7	Reforestation projects and preservation of the local environment and flora, among others (Crue, 2021, p.10).
7 CLEAN ENERGY	2, 4 and 7	University campuses as spaces for renewable energy production (photovoltaic, thermosolar, geothermal), among others (Crue, 2021, pp.6-7).	16 PLACE RESIDE AND STRONG DISTRIPUTORS	1, 3 and 6	Develop ethical codes that include values and goals of the 2030 Agenda, among others (Crue, 2021, p.10).
8 DECENT WORK AND ECONOMIC GROWTH	2, 3, 4, 5, 6 and 7	Analyze and promote the university employability of students, among others (Crue, 2021, p.7).	17 PARTICIPANTS FOR THE GOALS	3 and 7	Adhesion and collaboration of universities with national, European and international networks in defense of sustainability, among others (Crue, 2021, pp.10-11).
9 NOUSTRY INCLUSION AND INFRASTRUCTURE	2, 3, 4, 5, 6 and 7	Spin off available to companies and institutions, among others (Crue, 2021, p.7).			

Source: Own elaboration based on the Progress Report of the 2030 Sustainable Development Strategy (2022) and the Proposal for awareness-raising actions for the implementation of the 2030 Agenda, as well as the concerns of universities in relation to the fulfillment of the SDGs. (Crue, 2021). https://www.crue.org/documentos-e-informes/

1.3. Dissemination of sustainable development in Spanish universities

The media, from its social and educational function, has an important role in the dissemination and promotion of this global challenge (De la Rosa & Carrascal, 2019). Nevertheless, it is a commitment that must be shared with other agents such as companies, organizations, governments and individuals.

The scientific literature shows that communication, as a tool that allows institutions to communicate their CSR, has become a basic pillar on which to build and disseminate their responsible behavior in order to achieve a positive impact on their reputation (Araujo & Kollat, 2018; Estanyol, 2020; Hetze & Winistörfer, 2016; Kollat & Farache, 2017; Zeler & Capriotti, 2018). Nowadays, however, it is not enough to be socially responsible, it is also necessary for organizations' audiences to know it. For this reason, communication is a vitally significant tool for building positive relationships with their audiences (Kwon & Lee, 2021). Just as CSR communication can help generate a positive perception of a company or product (Chernev & Blair, 2015), CSR communication can help to generate a positive image of universities, especially when CSR is a way to implement the SDGs in companies (Nair et al., 2021). Moreover, effective communication is a success factor in achieving sustainability and awareness-raising goals, placing them at the center of the media agenda and, by extension, public opinion (Janoušková, Hák, Nečas & Moldan, 2019).

According to López-Carrión (2024), the role of communication in sustainable development was not born with the approval of the SDGs and the 2030 Agenda, but it has been addressed by academics long before; giving rise to specific disciplines of study such as Sustainable Communication for Development and Social Change. In this sense, communication is established as an essential tool for citizens to know and become involved in the aspects that address sustainable development (Díaz-Bordenave, 1998).

Authors such as Toro-Peña (2020, p. 773) emphasize that 'The SDGs have a limited vision of communication, as it is reduced to its more instrumental conception linked to ICTs'. However, despite the fact that the 2030 Agenda does not expressly refer to communication or how to communicate the SDGs, the role played by communication in their implementation is indisputable. Conversely, it should be qualified that it might have been inappropriate to set out a clearly delineated communication strategy common to all countries, given the different national contexts (Mulholland, Bernardo & Berger, 2017).

A recent study at the national level noted the high degree of ignorance on this issue among citizens, underlining that most of them do not know the driving body, the number of SDGs or whether there is a specific Ministry (López-Carrión, 2024).

The role and importance of communication in relation to the SDGs has been clearly seen in some of the Spanish government's own actions. In June, the *Action Plan for the Implementation of the 2030 agenda. Towards a Spanish Strategy for Sustainable Development* was approved (Gobierno de España, 2018). In its section '9. Transformative measures: laying the foundations', ten 'immediate and concrete measures and commitments to be carried out in those aspects that are fundamental, and horizontal, pillars to advance towards the SDGs' (p.149) are collected. The fourth of these makes explicit reference to communication, under the heading 'Inform to know. Raise awareness to do. Communicate to transform: a compact for communicating the 2030 Agenda'. This measure proposes a clear goal, namely that by 2020, 100% of Spanish citizens know about the 2030 Agenda and are aware of the scope of the transformations it entails. Likewise, this action plan established the commitment to reach a 'Pact for the communication of the 2030 Agenda between all public administrations and with private and civil society actors' (p. 153). With this measure, the Spanish government highlighted the importance of communication in the process not only of knowledge, but also of raising public awareness of the 2030 Agenda and the SDGs.

Furthermore, the role of communication is such that in 2022 the Global Alliance for Public Relations and Communication Management⁶ made an open call to PR professionals to include a new goal in the United Nations SDGs: SDG 18 on responsible communication for dialogue between companies, public institutions and citizens. This objective aims to ensure that the communication of progress in achieving the SDGs is understood as an implicit mechanism of sustainable development itself, with a real capacity to contribute to its success.

Universities assume a rigorous role both in the incorporation of the SDGs in their institutional behavior and in their communication policies (Carretón-Ballester, Quiles-Soler & Lorenzo-Solá, 2023). In this collective work, the dissemination of the SDGs, two dimensions can be established: an internal dimension, by internalizing a model of sustainable governance, as well as educating students in the values of social justice, environmental sustainability and respect for democracy and human rights, through their training programs; and an external dimension, by transferring the advancement of knowledge from its research on the SDGs into the scientific arena and by being an active agent and referent of change for the 2030 Agenda for society (Mulholland, Bernardo & Berger, 2017). A further step would be to establish the reciprocal reasons for universities to engage in the SDGs and the contribution of the SDGs to the university context. Aspects such as knowledge, learning, exemplarity, impact and collaboration are mutual contributions between the university institution and the SDGs (SDSN Australia/Pacific, 2017).

Moreover, universities' commitment to the SDGs is reflected in their own communication. Although it is true that not all universities have been able to manage their SDG communication well, there are various actions and platforms that have emerged for this purpose. At the international level, there are initiatives promoted by the United Nations and other organizations such as the Academic Impact Hubs, the International Association of Universities (with its Higher Education and Research for Sustainable Development [HESD] Portal). More specifically, universities themselves have been aware of their role and have created initiatives that show their commitment and the implementation of the SDGs in these institutions. Examples include the University of Bergen (Norway), the Universities of Leeds, Liverpool or Worcester (UK), the UCSI University of Malaysia (Kuala Lumpur Campus), the University of Bologna (Italy), Yale University (USA), or the University of Auckland (New Zealand) at the international level, while nationally there are the Universities of Málaga, Jaén, Pompeu Fabra or Barcelona (García Caballero & Herranz de la Casa, 2021).

Communication is not only a means that helps companies and institutions to disseminate their results, but also a mechanism that can contribute to their achievement by encouraging behavioral changes in their audiences that lead them to act in favor of the SDGs (UNDG, 2022)⁷. And, in this sense, the university becomes an agent of social transformation in relation to the SDGs, because it adds to its educational function, its role of sensitization, awareness and communication in the implementation of the SDGs.

Within this theoretical framework, we raise the following research questions:

- RQ1. Do universities map what they are already doing in their contribution to the SDGs?
- RQ2. What levers do universities use to contribute to the achievement of the 2030 Agenda goals?
- RQ3. Do they have specific plans or strategies as well as specific actions to develop the SDG indicators?

⁶ https://www.globalalliancepr.org/open-call-new-goal-to-the-sustainable-development-goals

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⁷ UNSDG. UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP (2022). Guidelines for the Advocacy and Communications Strategy of the Partnership Framework. https://unsdg.un.org/sites/default/files/2022-09/UNSDG%20 Cooperation%20Framework%20Comm%20guidance_SP%20%281%29.pdf

- RQ4. What audiences and agents are involved in the sustainable development of universities?
- RQ5. Does the type of ownership, public or private, determine differences in the development of the SDGs in universities?

In order to answer these questions, the following specific objectives are proposed:

- 1. To learn about the implementation of the SDGs in Spanish universities.
- 2. To observe the dimensions (levers) from which they contribute to sustainable development.
- 3. To analyze the dissemination of the universities' contribution to the SDGs.
- 4. To identify the agents and publics that universities consider in the development of the SDGs.
- 5. To determine whether there are differences between public and private universities in their commitment to sustainable development.

2. Materials & methods

The methodology for achieving the objectives and answering the research questions is developed in two steps.

In the first step, the latest strategic plans and reports on social responsibility or sustainability that the 77 Spanish universities (50 public and 27 private) have available on their official websites (documents or reports to download or information from the website itself) are selected. In a second step, a search for content on '2030 Agenda /SDGs' is carried out on the 77 official websites (https://www.crue.org/universidades/).

The research method used is the content analysis of both digital documents or web information, following the methodology of Carretón-Ballester, Quiles-Soler and Lorenzo-Solá (2023), and of the specific sites on sustainable development for the 2030 Agenda of the official websites of the universities. The presence of the 17 UN Sustainable Development Goals is analyzed, as well as the actions developed in each of them. To measure the dissemination of the SDGs through a specific site on the university's official website, SDG 18 (Responsible Communication) proposed by the Global Alliance for Public Relations and Communication Management to be included in the goals of the 2030 Agenda⁸ (Carretón-Ballester, Quiles-Soler & Lorenzo-Solá, 2023), is included in the analysis. Then, in March 2024, the information related to social responsibility reports, Strategic Plan, Equality Plan or Inlcusion Plan was consulted among the Times Higher Education indicators to verify that we had analyzed all the reports.

In order to carry out this work, an analysis template was drawn up which includes all the variables under study (see Table 4):

⁸ https://www.globalalliancepr.org/open-call-new-goal-to-the-sustainable-development-goals

Table 4. Analysis template

Analysis variable	Categories
V1. Name of the university	
V2. Ownership	Public or private
V3. Autonomous community	
V4. SDGs that appear in the strategic plan or in the social responsibility or sustainability report (From SDG1 to SDG17) (UN, 2015a)	Own Scholarships (SDG1) Collaboration with the Food Bank (SDG2) Healthy University (SDG3) Inclusion Plan (SDG4) Equality Plan (SDG5) Water Footprint (SDG6) Renewable Energy Campus (SDG7) Employability Plan (SDG8) Spin off or EBT (SDG9) Training for People with Intellectual Disabilities (SDG10) Sustainable Mobility Plan (SDG11) Responsible Consumption (SDG12) Carbon Footprint (SDG13) Preserve the Marine Environment (SDG14) Preserve the Terrestrial Environment (SDG15) Code of Ethics (SDG16) Partnerships (SDG17) Responsible communication (SDG18) (Global Alliance, 2022)
V5. Audiences and actors of impact (post-coding)	Teaching and Research Staff (TRS) Administration and Services Staff (ASS) Students Companies Public Institutions NGOs or Associations Governments Providers Other universities Gypsy community Immigrants/ Refugees Disabled people LGTBI+ Collective Women Families without resources Society in general
V6. Dimensions of the university (SDSN, 2020)	Alliances for commitment Collective commitment for peace Commitment to the planet's climate and environment Commitment to community prosperity Commitment to people
V7. Dissemination in URL of the SDGs (post-coding)	Social Commitment/Social Responsibility/Social Impact Environmental Sustainability Agenda 2030 / Sustainable development Unnamed, but leads to SDG content Not found
V8. Presence of actions carried out	Yes, or Not

Source: Own elaboration.

3. Results

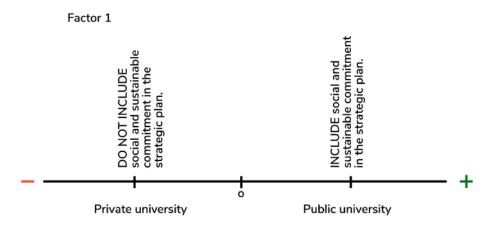
3.1. Social responsibility and sustainability in university strategy

University responsibility is embedded in the majority of academic institutions. The analysis indicates that social and sustainable commitment is included in 83% of strategic plans, especially

in public universities, compared to 17% of universities that do not yet include it as a strategic line. In addition, University Social Responsibility (USR) or sustainability reports and official websites include the university's contribution to the achievement of the Sustainable Development Goals in almost 77% of universities.

In order to determine whether there is an interdependent relationship between the categories of ownership type and strategic social and sustainable commitment, a simple correspondence analysis was performed. The Chi-square value ($X_1^2 = 16.090$) with a significance level of p = .000 indicates that the variables are associated, and the factor analysis indicates that the first factor explains 100% of this association. By columns, the private university category is higher than the average inertia, explaining 64.1% of the association. Thus, private ownership tends not to include social and sustainable commitment in its strategic plans. By ranks, the category 'does not include social and sustainable commitment in the strategic plan' explains 83.3% of the association between the categories. The analysis reveals that the universities that include social and sustainable commitment in the strategic plan are those with public ownership (Figure 2).

Figure 2. Association between the categories of ownership and commitment variables in the Strategic Plan



Source: Own elaboration.

3.2. Stakeholders and agents of social and sustainable impact

With regard to the groups or audiences that are the object of the impact of the responsibility or sustainability of the universities, the student body is the most present group (76.4%), followed by the Teaching and Research Staff - TRS (75.6%) and the Administration and Services Staff - ASS (74.4%).

The statistical analysis is robust and shows a statistically significant relationship between university ownership and certain audiences (Table 6). Companies and public institutions are found more in public universities reports with a statistically significant, albeit moderate-low relationship. Therefore, the null hypothesis of independence is rejected, and it is concluded that the presence of private companies and public institutions in the reports depends on the type of university ownership.

Table 5. Stakeholders and agents of the social and sustainable impact of universities (%)

Stakeholder	Appears	Does not appear	Not available	Total
TRS	75.6	2.6	21.8	100
ASS	74.4	3.8	21.8	100
Students	76.9	0	23.1	100
Companies	71.8	3.8	24.4	100
Public Institutions	70.5	5.1	24.4	100
NGOs or Associations	61.5	14.1	24.4	100
Governments	61.5	14.1	24.4	100
Providers	34.6	41	24.4	100
Other universities	59	16.7	24.4	100
Gypsy community	9	66.7	24.4	100
Immigrants/Refugees	6.4	69.2	24.4	100
Disabled people	59	16.7	24.4	100
LGTBI+ Collective	26.9	48.7	24.4	100
Women	62.8	14.1	23.1	100
Families without resources	46.2	29.5	24.4	100
Society in general	74.4	1.3	24.4	100

Source: Own elaboration.

Table 6. Relationship between public and type of university

		Chi-s	quare Tests	Symmetric Measures				
Audiences	Value	df	Asymp. Sig. (2-sided)	Cramer's V	Approx. Sig.			
Companies	7.750 ¹	2	.021	.315	.021			
Public institutions	10.007 ²	2	.007	.358	.007			

¹2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.08

3.3. Implementation and dissemination of the 2030 Agenda in universities

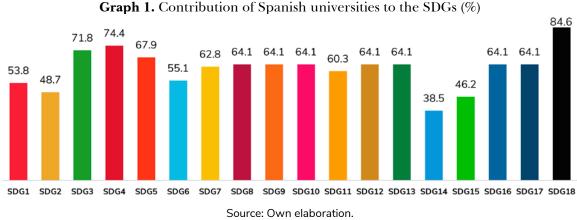
The 2030 Agenda is mentioned in 82% of the social responsibility or sustainability reports and even in some strategic plans. However, the analysis of official websites shows that universities contribute to the achievement of the different SDGs in different proportions (Graph 1), with Quality Education (SDG4) standing out with a presence of 74.4%, Health and Well-being (SDG3) in 71.8% of universities and Gender Equality (SDG5) in 67.9%.

In terms of the levers involved in the universities' contribution to sustainable development, education stands out (70.5%), followed by research (69.2%), the management and governance model (62.8%) and social leadership (61.5%). The analysis of these dimensions by type of university shows that, for private universities, leadership is the dimension most present in the development of their 2030 Agenda, compared to the management and governance model dimension in public universities.

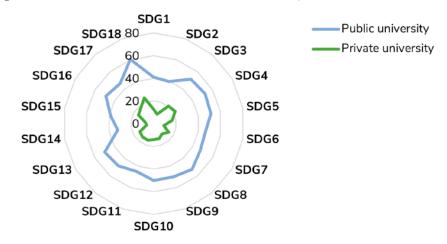
The data (Graph 2) shows that SDG4 Quality Education and SDG8 Decent Work and Economic Growth are the most developed by public universities, while in private universities, SDG4 Quality Education is in first place SDG3 Health and Well-being and SDG5 Gender Equality are tied for second place in public universities. In the private sector, however, SDG3 Health and Well-being is in second place. SDG12 Sustainable Consumption and Production and SDG16 Peace, Justice

² 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.44 Source: Own elaboration.

and Strong Institutions rank third in public universities, and SDG17 Partnerships to Achieve Goals in private universities. It should be noted that SDG2 Zero Hunger is the least developed in both public and private universities, and SDG6 Clean Water and Sanitation also appears in last place in private universities.



Graph 2. Contribution of universities to the SDGs by tenure (%)



Source: Own elaboration.

Based on the results of the contingency table, we ask whether public or private ownership determines how universities contribute to each of the SDGs, so we pose the null hypothesis of independence between the type of university (public or private) and each SDG. The Chi-Square test (Table 4) is calculated and reveals that, with a confidence level of 95%, there is a statistically significant relationship between tenure and the development of the Sustainable Development Goals in the university, being, therefore, dependent variables. Thus, it can be affirmed that the SDGs are developed more in public universities than in private universities.

Regarding the dissemination of the SDGs, the analysis shows that the website created specifically to disseminate the contribution to the SDGs is called '2030 Agenda/SDGs' in 67.9% of the institutions, followed by 'Environmental Sustainability' in 17.9% and the words 'Social Commitment/Social Responsibility/Social Impact' appear in a meager 5% of the universities. However, 12.8% of institutions do not disseminate content on the 2030 Agenda or the SDGs (Table 5). By type of university, although some differences are observed in the contingency table, the statistical analysis concludes that the type of ownership of the universities does not determine the name of the website.

Table 7. Relationship between SDGs and type of university

		Cł	ni-square tests	Measure of associati		
SDG	Value	df	Asymptotic Sig. (2 sides)	Cramer's V	Approx. Sig.	
SDG1. End Poverty	8.079 ¹	2	.018	.322	.018	
SDG2. Zero Hunger	11.899 ²	2	.003	.391	. 003	
SDG3. Health and Well-being	6.606 ³	2	.037	.291	.037	
SDG4. Quality Education	6.221 4	2	.045	.282	.045	
SDG5. Gender Equality	10.800 5	2	.005	.372	.005	
SDG6. Clean Water and Sanitation	17.503 ⁶	2	.000	.474	.000	
SDG7. Affordable and Clean Energy	9.329 ⁷	2	.009	.346	.009	
SDG8. Decent Work and Economic Growth	20.356 ⁸	2	.000	.511	.000	
SDG9. Industry, Innovation and Infrastructure	13.135 ⁹	2	.001	.410	.001	
SDG10. Reducing Inequalities	13.135 ¹⁰	2	.001	.410	.001	
SDG11. Sustainable Cities and Communities	7.697 ¹¹	2	.021	.314	.021	
SDG12. Sustainable Consumption and Production	10.287 12	2	.006	.363	.006	
SDG13. Climate Action	13.135 ¹³	2	.001	.410	.001	
SDG14. Life Below Water	10.295 ¹⁴	2	.006	.363	.006	
SDG15. Life on Land	12.814 ¹⁵	2	.002	.405	.002	
SDG16. Peace, Justice and Strong Institutions	10.287 16	2	.006	.363	.006	
SDG17. Partnerships to Achieve the Goals	6.115 ¹⁷	2	.047	.280	.047	
SDG18. Responsible Communication	10.075 ¹⁸	2	.006	.359	.006	

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 y 17 2 cells (33.3%) have expected count less than 5. The minimum expected count is .72.

Table 8. Name of the URL on the 2030 Agenda of the universities (%)

URL 2030 Agenda	Public	Private	Total
Social Commitment/Social Responsibility/Social Impact	2.6	2.6	5.1
Environmental Sustainability	7.7	5.1	12.8
Agenda 2030 / Sustainable development	48.7	19.2	67.9
Unnamed, but leads to SDG content	1.3	0.0	1.3
Not found	3.8	9.0	12.8

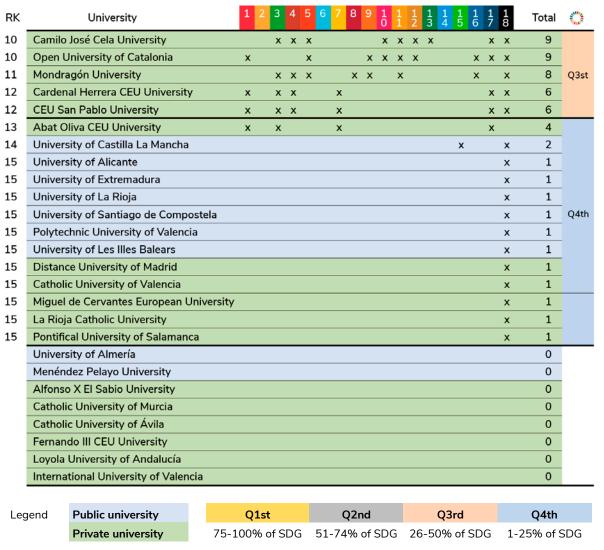
Source: Own elaboration.

With regard to the degree of the universities' contribution to the SDGs, the results allow us to establish the quartiles of sustainability. The top five positions constitute the Q1st of the universities' sustainable development. At the top of the ranking are 19 universities (17 public and 2 private). The second position is shared by 7 universities (5 public and 2 private). In third place are 8 public universities, and in fourth place are 2 public and 2 private universities. In fifth place are 2 public universities and 1 private university. Q2nd is composed of 10 universities, of which 4 are private and 6 are public. In Q3rd there are 5 private universities and of the 13 universities in Q4th, only one is public and only one is private. These institutions are characterized by a very low level of contribution to the SDGs. The remaining 8 universities (2 public and 6 private) have not yet implemented the Sustainable Development Goals in their policies (Figure 6).

¹⁸ 3 cells (50.0%) have expected count less than 5. The minimum expected count is .72. Source: Own elaboration.

Figure 6. Ranking of universities according to their contribution to the SDGs (n)

	9	_					,													()	
RK	University	1	2	3	4	5	6		8	9	1		1	13	14	1 5	1 6	<u>1</u>	1 8	Total	Sund.
1	Autonomous University of Madrid	х	x	х	х	x	х	х	х	x	x	х	х	x	х	х	х	х	х	18	
1	University of Cádiz	х	х	х	х	х	х	х	х	x	x	х	×	x	х	x	х	х	x	18	
1	Carlos III University	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	18	
1	University of Córdoba	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	18	
1	University of Granada	х	х	х	х	х	х	х	х	х	х	х	x	х	х	х	х	х	х	18	
1	University of Jaén	х	х	х	х	х	х	х	х	х	х	x	x	х	х	х	х	х	x	18	
1	University of Las Palmas of Gran Canarias	х	х	х	х	х	х	х	х	х	х	x	x	х	х	x	х	х	х	18	
1	University of León	x	х	х	х	х	х	х	х	x	x	х	×	x	х	x	х	х	х	18	
1	University of Oviedo	х	х	х	х	х	х	х	х	х	х	х	x	х	х	х	х	х	х	18	
1	University of Salamanca		х									х								18	
1	University of Valladolid	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	18	
1	University of Vigo											х								18	
1	Pablo of Olavide University											x	_			_				18	
1	Miguel Hernández University											x	_			_				18	
1	Pompeu Fabra University											x								18	
1	Public University of Navarra											x	_			_				18	
1	Rey Juan Carlos University											x								18	
1	University of Navarra											x								18	
1	University of Vic											x								18	Q1st
2	Autonomous University of Barcelona																			17	
		X										х	_			_			x		
2	University of La Laguna		X									X	_		Х	_				17	
2	Polytechnic University of Cataluña											X						Х		17	
2	Polytechnic University of Madrid	Х										Х	_			-		Х		17	
2	Rovira i Virgili University								Х			Х								17	
2	Deusto University			Х								Х							х	17	
2	Pontificia Comillas University	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	x	X	Х	х	Х	Х		17	
3	University of A Coruña			X	Х	Х	X	Х	Х	Х	Х	X	X	Х	Х	X		Х	X	16	
3	University of Barcelona	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	X	х			Х	Х	Х	16	
3	University of Burgos	Х		Х	Х	Х	Х	Х	Х	Х	Х	х	X	Х		х	Х	Х	Х	16	
3	University of Cantabria	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	x	х	Х	х	Х	Х		16	
3	University of Huelva			Х	Х	Х	Х		Х	Х	Х	х	х	х	Х	х	Х	Х	Х	16	
3	University of Málaga	Х	Х	Х	х	Х	Х	х	х	х	х	х	x	х			Х	х	Х	16	
3	University of Zaragoza	X	X	X	X	X	X	X	X	X	X	x	x	x			X	х	X	16	
3	Polytechnic University of Cartagena	X	X	X	X	X			X	X	X	x	x	X	X	x	X	X	X	16	
4	University of Girona	х		х	х	x	X	х	х	x	х		x	х	х	x		х	X	15	
4	University of Lleida	X	X	X	х	X		х	х	X	х	х	x	х			X	х	X	15	
4	Antonio of Nebrija University	х	x	x	х	x	х		х	x	х		x	x			x	х	x	15	
4	Francisco of Vitoria University	X	х	X		х		х	х	х		х		X	X	x	х	х	х	15	
5	University of Murcia	х	х	X	х	X	X	х	х	X		x			х	x		х	х	14	
5	International University of Andalucía		х	х	х	х	х	х	х	х	х		x	х			х	х	х	14	
5	IE University	х	х	X	х	х	х		х		х	x		х	х	x		х	х	14	
6	University of Sevilla			х	х		х	х	х	х		х	x	х		х	х	х	х	13	
6	University of País Vasco			х	х	х		х	х	х	х	х	х	х			х	х	х	13	
6	European University of Madrid						х					х			х		х			13	
6	Internacional University of Catalonia				x							x						х	x	13	
7	National University of Distance Education						х						x				х		х	12	Q2nd
7	Ramón Llull University		х	x				x				х						х		12	,
8	University of Valencia	x		x					x		x	,,		х			X		x	11	
8	Jaume I University	^	^		_		х	Y		Y			^	x			×		x	11	
9	Complutense University of Madrid	x		^	x		^		x			x	v				^	х		10	
9	San Jorge University	^		~		^	~	~	^	~	^	^				~	~	^		10	
٠.	San Jorge Oniversity			Х	^		Х	^		Х			٨	Х		Х	^		Х	10	



Source: Own elaboration.

3.4. University actions for Sustainable Development policies

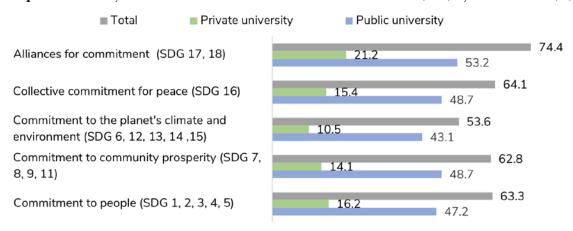
Taking into account the areas established by the UN in the development of the 2030 Agenda, the analysis reveals that actions referring to Alliances for Commitment have a greater presence than the rest (74.4%), followed by Collective Commitment for Peace (64.1%), Commitment to People (63.3%) and Community Prosperity (62.8%), with actions of Commitment to the Planet's Climate and Environment coming last (53.6%). While Alliances is the most developed dimension for public and private universities, the second most developed dimension is Collective Commitment for Peace and Community Prosperity in public universities, and Commitment to People in private universities (Graph 3).

The analysis of the actions according to the priority areas of the European Commission's SDGs shows that almost 70% contribute to sustainable development. A Europe Fit for the Digital Age accounts for 69.2%, the European Way of Life 68.6%, while an Economy that Works for People 65.8% and A Stronger and More Democratic Europe 65.4%, with the European Green Pact being the area with the lowest weight (58.7%). The cross-analysis shows that the contribution of universities to these priority areas does not differ between types of universities (Graph 4).

From the perspective of the Sustainable Development Strategy (Graph 5), the majority of universities focus on actions that contribute to policy 7: International Leadership for a Fair,

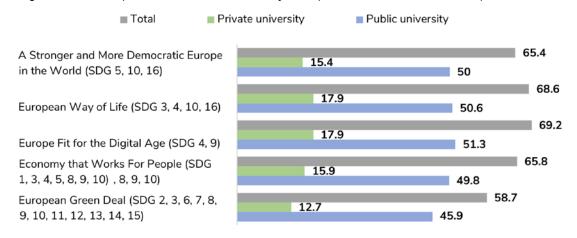
Sustainable, Equal, Democratic and Human Rights-Based Globalization⁹ (73.7%); policy 1: The social transition. Redistribute Wealth and Guarantee Rights¹⁰ (72.4%); with the same frequency, policy 6: Strengthened Public Services for a Democratic and Resilient Welfare State¹¹; and policy 8: Social and Territorial Cohesion. A Rural Environment with Equal Rights and Opportunities¹² (71.7%). The contribution of universities to the rest of the strategic axes appears in 66%, and 71% are in policy 2: A Country that Respects the Limits of the Planet; policy 3: Free and Equal Lives for All; policy 4: A Green, Fair and Digital New Productive and Economic Model; and policy 5: Quality and Stability of Employment¹³.

Graph 3.University contribution to the five dimensions of the SDGs (UN) by tenure track (%)



Source: Own elaboration.

Graph 4. University contribution to the five priority areas of the SDGs (EC) by tenure track (%)



Source: Own elaboration.

⁹ Own scholarships, Contribution to the Food Bank, Healthy University, Inclusion Plan, Equality Plan, Renewable Energy Campus, Employability Plan, Spin off, Sustainable Mobility, Responsible Consumption, Carbon Footprint, Preserving the Earth's Environment and Partnerships.

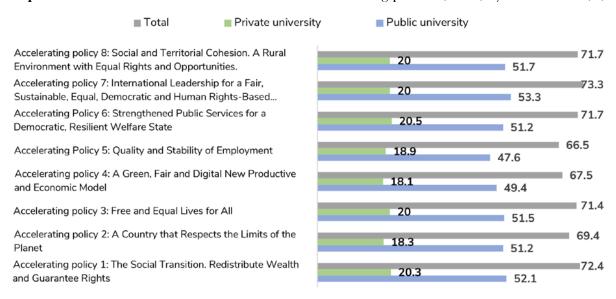
Own scholarships, Contribution to the Food Bank, Healthy University, Inclusion Plan, Equality Plan, Employability Plan, Spin off, Training for People with Intellectual Disabilities, Responsible Consumption, Code of Ethics and Partnerships.

¹¹ Own scholarships, Contribution to the Food Bank, Healthy University, Inclusion Plan, Equality Plan, Employability Plan, Spin off, Training for People with Intellectual Disabilities, Sustainable Mobility Plan and Code of Ethics.

¹² Own scholarships, Contribution to the Food Bank, Healthy University, Inclusion Plan, Equality Plan, Renewable Energy Campus, Employability Plan, Spin off, Training for People with Intellectual Disabilities, Responsible Consumption, Carbon Footprint, Preserving the Environment.

¹³ Own scholarships, Healthy University, Inclusion Plan, Equality Plan, Employability Plan, Spin off, Training for People with Intellectual Disabilities.

Graph 5. Contribution of universities to the SDG8 accelerating policies (SDGs) by tenure track (%)



Source: Own elaboration.

To find out the interdependence between the SDGs of the Sustainable Development Strategy, an exploratory factor analysis (EFA) is carried out. The first thing that emerges from the analysis is that the determinant (.001) indicates that the variables are strongly related. The analysis retains 4 principal components that explain most of the total variance. Since the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is very high (.803) and Barlett's test is significant ($X^2_{136} = 494.990$; p = .000), there is a strong association between the variables. However, the variables network membership and water footprint show less interrelation than the rest.

Based on this analysis, the question arises whether this interdependence is replicated in each of the dimensions: People (SDGs 1, 2, 3, 4, 5 and 10), Prosperity (SDGs 7, 8, 9 and 11), Planet (SDGs 6, 12, 13, 14 and 15) and Peace (SDGs 16, 17 and 18). To this end, an exploratory factor analysis (EFA) was performed for each of them (Table 9).

Table 9. Exploratory factor analysis (EFA) for the dimensions: people, prosperity, planet and peace

Dimension	KMO ¹⁴	Barlett's test of	spheric	ity	Rotated Principal Component Matrix SDG ¹⁵				
		Chi-square value	df	Sig.	Factor 1. SDG	Factor 2. SDG			
People ¹⁶	.761	598.314	15	.000	3, 4, 5 and 10	1 and 2			
Prosperity ¹⁷	.844	256.696	6	.000	7, 8 and 9	11			
Planet ¹⁸	.796	444.544	10	.000	12 and 13	6, 14 and 15			
Peace ¹⁹	.692	69.601	3	.000	16 and 17	18			

Source: Own elaboration.

 $^{^{14}}$ KMO > 0.6: high intercorrelation (useful PA); $0.5 \le$ KMO \le 0.6: medium degree of intercorrelation (less useful PA); KMO < 0.5: low intercorrelation (not useful PA).

¹⁵ Extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation has converged in 3 iterations.

¹⁶ Determinant = .000

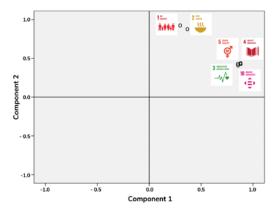
 $^{^{17}}$ Determinant = .032

¹⁸ Determinant = .003

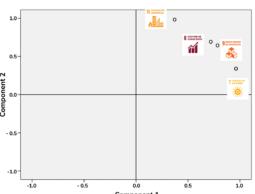
¹⁹ Determinant = .396

The correlation matrix for People shows some values below 0.30 with a determinant equal to zero, so the variables (SDGs) are probably independent and the PFA is not applicable for this dimension. Nevertheless, the correlations between the variables that compose the Prosperity dimension, the variables of the Planet dimension and the variables of the Peace dimension are above 0.30 and their determinants are low but non-zero. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity reinforce the high correlation between their variables (ODS). Visually, the interrelationship between the variables can be appreciated with the rotated space component plots for the four dimensions (Graphs 6, 7, 8 and 9).

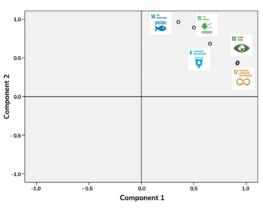
Graph 6. Components in rotated space for the People dimension



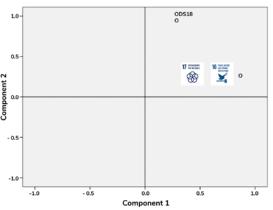
Graph 7. Components in rotated space for the Prosperity dimension



Graph 8. Components in rotated space for the Planet dimension



Graph 9. Components in rotated space for the Peace dimension



Source: Own elaboration.

4. Discussion and conclusions

The involvement of the Spanish university system in the achievement of the goals set out in the 2030 Agenda is evident when observing the leading role, it assumes after analyzing the progress and pending challenges in the fulfillment of the 2030 Agenda, which are included in the 2022 Progress Report of the 2030 Sustainable Development Strategy. However, this leading role is not homogeneous; there is great variability in terms of the universities' commitment to achieving the SDGs, as well as in their localization with specific actions and how they communicate them. The conclusions based on the specific objectives are presented below in relation to the cross-cutting question whether the type of ownership, public or private, determines differences in the development of the SDGs in universities.

As agents of change, the implementation of the SDGs in universities is fundamental for sustainable development. With regard to specific objective 1, the analysis carried out has provided information on the implementation of the SDGs in Spanish universities. While this is very heterogeneous, it should be noted that SDG4 (Quality Education) SDG3 (Health and Wellbeing) and SDG5 (Gender Equality) are the most present and that the public or private nature of the universities determines the development of the SDGs. Thus, while public universities give greater prominence to SDGs 4 and 8, followed by SDGs 3 and 5, it is SDG4 that is most present in private universities, followed by SDG3. Furthermore, an analysis of the degree to which universities contribute to the SDGs reveals differences depending on whether they are public or private. Of the 41 universities in the first quartile, 34 are public, which shows a greater commitment. Therefore, it is worth noting that, in general terms, regardless of each university's involvement in the SDGs, it is the public universities that show the greatest involvement in their development, which responds to the first research question: Do universities map what they are already doing in their contribution to the SDGs?

In this sense, the Times Higher Education (hereinafter THE) (2024) is a study that monitors the universities, including Spanish universities, that are making a greater implementation of the SDGs, as well as describing which of them are predominant, making an Impact Ranking. To do this, it is necessary for universities to register and report their achievement data. Considering the differences between this ranking and the present work in terms of the reports under study and the parameters that are the focus of analysis, we note discrepancies with our research. Thus, for example, in our study the Polytechnic University of Valencia is at the bottom in the implementation of the SDGs while in the ranking cited it is the first. This data encourages us to reflect on whether, despite the fact that this institution is carrying out a correct implementation of certain SDGs, it is not communicating the report it makes to THE, neither on its website nor in the available reports.

With regard to specific objective 2, the results, which coincide in that eight out of ten universities include social and sustainable commitment in their strategic plans and do so to a lesser extent in their social responsibility or sustainability reports, also indicate that the universities promote the SDGs from the four levers in the following order: education, research, governance and external leadership. However, although tenure does not determine the levers developed for sustainable development, it should be noted that governance in public universities is the lever most present in the implementation of the SDGs, while in private universities it is external leadership. This answers the question: What levers do universities use to contribute to the achievement of the 2030 Agenda goals?

The analysis of the dissemination of the SDGs, specific objective 3, shows that there is no single, agreed name for the website created for this purpose. While it is true that the vast majority of universities use the term 'Agenda 2030/SDGs' as direct access to their official websites, there are still universities that maintain the concept of 'Sustainability' directly linked to environmental plans or actions, and others place it in their commitment or social impact from the perspective of University Social Responsibility. From this analysis, concrete actions that evidence strategic plans in areas such as equality, inclusion, environmental sustainability or membership of the Healthy Universities Network emerge, as opposed to specific actions far from a strategic approach such as employability, scholarships or the food bank, and which respond to the research question 'Do they have specific plans or strategies as well as specific actions to develop the SDG indicators?'.

In this sense, and with respect to actions, the prosperity dimension is explained by Affordable and Clean Energy (renewable energies), Decent Work and Economic Growth (employability) and Industry, Innovation and Infrastructure (creation of Spin offs or Technology Based Companies), not needing for its explanation the objective of Sustainable Cities and Communities (sustainable mobility). It is interesting to see that the planet dimension can be explained in two ways: first, by the relationship between Responsible Consumption and Production (responsible consumption) and Climate Action (reduction of carbon footprint); second, by the relationship between Clean Water and Sanitation (control of water consumption) and Protection of Underwater Life and

Terrestrial Ecosystems. In the peace dimension (Peace, Justice and Strong Institutions and Partnerships to Achieve the Goals), the action of communicating the SDGs is excluded from the actions that describe it.

Regarding the target audiences of social and sustainable impact (specific objective 4) and regardless of the type of ownership, students are presented as the main audience of the universities, followed by research teaching staff and administration and services staff, All of them are members of the university community, thus highlighting the value that the universities place on the internal dimension of sustainability, which is in line with previous studies (Carretón-Ballester, Quiles-Soler & Lorenzo-Solá, 2023). In this internal dimension and with regard to specific audiences, people with disabilities are represented in six out of ten universities, and families without resources in five out of ten, compared to a residual presence of ethnic groups or races (gypsy community, Islamic...) and a lower presence of LGTBI+ collectives than expected. These figures coincide with the absence of prolific inclusion plans. Additionally, although equality plans predominate, women, as the focus of actions for gender equality, are included in 62.8%. However, the relationship with private companies or public institutions in sustainable development linked to public universities stands out. These results show positive aspects such as the attention to gender and inclusion issues, with the implementation of detailed plans. On the other hand, there is also room for improvement, such as the focus on specific ethnic and racial groups, or on LGTBI+ groups, as there is still work to be done in this field. Thus, future work should observe whether these groups have improved in terms of attention and promotion of plans, on the one hand, as well as encouraging the establishment of such plans, on the other.

In relation to other publics -which in turn are agents and generate a mutual relationship of influence- governments, NGOs and associations are slightly less represented than private companies and public institutions. Meanwhile, suppliers that play a dynamic role in SDG12 on Responsible Consumption and Production in their relationship with the university achieve a fairly low presence (three out of ten universities).

In conclusion, although it is possible to observe the contribution of universities to the SDGs and their degree of involvement according to their public or private nature, as well as their focus on certain SDGs to the detriment of others, the way in which this is communicated (difficult accessibility on the web) makes it difficult to know actions being carried out and the progress in their development. In this sense, our research highlights the shortcomings in the dissemination of the SDGs by universities. Toro-Peña (2020) previously pointed out the reduced conception of communication given to the SDGs and Mulholland, Bernardo and Berger (2017) noted that neither the 2030 Agenda nor the SDGs themselves make express reference to their communication, despite the fact that it is an essential tool not only for their dissemination, but also for their knowledge and implementation among the population (Díaz-Bordenave, 1998).

This work shows that universities focus predominantly on internal audiences and, in particular, on students. Given the difficulty in disseminating and accessing the SDGs developed in universities, it is worth asking what knowledge the public, and in particular the internal public, have of the actions being carried out for their sustainability. López-Carrión (2024) has already highlighted the high level of ignorance of the SDGs among the population.

For all of the above reasons, this study has served to identify what is being done, the opportunities and weaknesses of the contribution of universities to sustainable development, to evaluate their implementation, and to motivate the introduction of the SDGs in university policies from and in all their dimensions (SDSN, 2017).

In this sense, it is not enough for universities to carry out or implement the SDGs, but it is also necessary to communicate them, so that society knows and understands what is being done. At this point, despite the existence of the Action Plan for the Implementation of the 2030 agenda. Towards a Spanish Strategy for Sustainable Development was approved; in which,

through section 9, special attention and importance was given to the need to communicate SDG actions, it can be seen that this approach is still far from becoming a reality. The lack of a crosscutting communication objective that implements each and every one of the SDGs has meant that institutions are more focused on doing than on communicating. For this reason, there is a need to implement not only studies that investigate the state of the question of what and how the SDGs are being communicated, but also to propose style and communication manuals for public institutions so that they can be carried out (Mulholland, Bernardo and Berger, 2017).

In its section '9. Transformative measures: laying the foundations', ten 'immediate and concrete measures and commitments to be carried out in those aspects that are fundamental, and horizontal, pillars to advance towards the SDGs' (p.149) are collected. The fourth of these makes explicit reference to communication, under the heading 'Inform to know. Raise awareness to do. Communicate to transform: a compact for communicating the 2030 Agenda'. This measure proposes a clear goal, namely that by 2020, 100% of Spanish citizens know about the 2030 Agenda and are aware of the scope of the transformations it entails. Likewise, this action plan established the commitment to reach a 'Pact for the communication of the 2030 Agenda between all public administrations and with private and civil society actors' (p. 153).

The data provided in this work disagree with the data from THE (2024) and, therefore, future work should be carried out to observe the reasons for these discrepancies and to try to reach a consensus regarding the sources of analysis taken into account, as well as the accessibility and dissemination of the data. Also, for future research, comparative reports should be made that try to triangulate the data provided by this work, those provided in THE and the report made by CRUE Spanish Universities (2024) "Analysis of the degree of implementation of the Sustainable Development Goals in the scientific activities and knowledge transfer of Spanish Universities" in which an analysis is made of the scientific research on the subject.

Finally, in their commitment to society and as active drivers of the sustainability of their environment, universities are institutions that have the task of communicating their responsible behavior, as well as presenting the mechanisms for implementing the SDGs and promoting them among their different stakeholders (Carretón-Ballester; Quiles-Soler & Lorenzo-Solá, 2023). Thus, a future line of research would be aimed at accurately analyzing the degree of knowledge that university audiences have of SDG actions, for the purpose of establishing points for improvement and promoting communicative actions.

5. Contribution

Task	Author 1	Author 2	Author 3	Author 4
Conceptualization	x	×	×	×
Formal analysis	x	x	x	×
Funding acquisition				
Project administration	x			
Investigation	x	x	×	×
Methodology		×	×	×
Data curation		×	×	
Resources	x	×	x	x
Software	x	×	×	×
Supervision	x	×	×	×
Validation	x	×	×	×
Visualization	×	×	×	×
Writing – original draft	×	×	×	×
Writing – review and editing	×	×	×	×

References

Araujo, T., & Kollat, J. (2018). Communicating effectively about CSR on Twitter: The power of engaging strategies and storytelling elements. *Internet Research*, 28(2), 419-431. https://doi.org/10.1108/IntR-04-2017-0172

Carretón-Ballester, C., Quiles-Soler, C., & Lorenzo-Solá, F. (2023). "Social responsibility of Spanish universities for sustainable relationships". *Profesional de la información*, *32*(6), e320602. https://doi.org/10.3145/epi.2023.nov.02

Chernev, A., & Blair, S. (2015). Doing Well by Doing Good: The Benevolent Halo of Corporate Social Responsibility. *Journal of Consumer Research*, 41, 1412-1423. https://doi.org/10.1086/680089

CRUE (2021). Propuesta de acciones de sensibilización para la implementación de la agenda 2030 e inquietudes de las universidades en relación con el cumplimiento de los ODS. https://www.crue.org/wp-content/uploads/2021/01/Informe Universidades Crue-Agenda2030.pdf

CRUE (2024). Análisis del grado de implantación de los Objetivos de Desarrollo Sostenible en las actividades científicas y de transferencia de conocimiento de las Universidades Españolas. https://www.crue.org/wp-content/uploads/2024/10/Informe-Final-CRUE-vsent.pdf

De la Rosa, D., & Carrascal S. (2020). Educación para el Desarrollo Sostenible: un estudio sobre la difusión y contextualización de la educación en los medios de prensa escrita en España: El Mundo, ABC y La Vanguardia". *Comunicación y Hombre*, 16, 317-334. https://comunicacionyhombre.com/article/educacion-desarrollo-sostenible-estudio-la-difusion-

contextualizacion-la-educacion-los-medios-prensa-escrita-espana-mundo-abc-la-vanguardia/

Díaz-Bordenave, J. (1998). La comunicación como herramienta esencial del desarrollo sostenible. *Población y Desarrollo*, *9*(14), 10-18. https://bit.ly/pyd1998

Estanyol, E. (2020). Comunicación de la responsabilidad social corporativa (RSC): Análisis de las campañas más premiadas en 2018. *El Profesional de la Información*, 29(3), e290334. https://doi.org/10.3145/epi.2020.may.34

European Commission (EC). The Commission's holistic approach for sustainability and the SDGs. European commission priorities. https://commission.europa.eu/strategy-and-policy/sustainable-development-goals/eu-whole-government-approach_en

EUROSTAT (2022). Sustainable development in the European Union Monitoring report on progress towards the SDGs in an EU context. European Union. https://doi.org/10.2785/313289

García Caballero, S., & Herranz de la Casa, J.M. (2021). La Agenda 2030 en las universidades españolas: la estrategia comunicativa de los objetivos de desarrollo sostenible. *Revista Iberoamericana de Economía Solidaria e Innovación Socioecológica*, 4, 127-147. http://dx.doi.org/10.33776/riesise.y4i1.5246

Global Alliance (2022). Open call to the PR profession to add a new goal to the sustainable development goals (SDG) of United Nations.

https://www.globalalliancepr.org/open-call-new-goal-to-the-sustainable-development-goals

Gobierno de España (2018). Plan de acción para la implementación de la agenda 2030: hacia una estrategia española de desarrollo sostenible. https://acortar.link/OTIbY3

Hetze, K., & Winistörfer, H. (2016). CSR communication on corporate websites compared across continents. *International Journal of Bank Marketing*, *34*(4), 501-528. https://doi.org/10.1108/IJBM-02-2015-0022

Janoušková, S., Hák, T., Nečas, V. & Moldan, B. (2019). Sustainable Development-A Poorly Communicated Concept by Mass Media. Another Challenge for SDGs? *Sustainability*, 11, 3181. https://doi.org/10.3390/su11113181

Kollat, J., & Farache, F. (2017). Achieving consumer trust on Twitter via CSR communication. *Journal of Consumer Marketing*, *34*(6), 505-514. https://doi.org/10.1108/JCM-03-2017-2127 López-Carrión, A. E. (2024). Los Objetivos de Desarrollo Sostenible y la Agenda 2030 en España: análisis de los efectos de las campañas de comunicación y del conocimiento de la población. *Doxa Comunicación*, *38*, 293-315. https://doi.org/10.31921/doxacom.n38a1997

Ministerio de Derechos Sociales y Agenda 2030 (2022). Informe de Progreso 2022 de la Estrategia de Desarrollo Sostenible 2030. Madrid: Secretaría General Técnica Centro De Publicaciones. https://www.mdsocialesa2030.gob.es/agenda2030/documentos/IP22 AC.pdf

Ministerio para la Transformación Digital y de la Función Pública (2024). Catálogo de Datos Indicadores Agenda 2023. https://datos.gob.es/es/catalogo?q=indicadores+agenda+2030&sort=score+desc%2C+metadata_created+desc&_publisher_display_name_limit=0&publisher_display_name=Comunidad+Autónoma

Mulholland, E., Bernardo, A. & Berger, G. (2017), Communication and Awareness Raising in the Implementation of the 2030 Agenda and the SDGs: Activities and Challenges, ESDN Quarterly Report 44, April 2017, ESDN Office, Vienna.

Nair, R., Viswanathan, P. K., & Bastian, B. L. (2021). Reprioritising Sustainable Development Goals in the Post-COVID-19 Global Context: Will a Mandatory Corporate Social Responsibility Regime Help? *Administrative Sciences*, 11(4), 150. https://doi.org/10.3390/admsci11040150

Organización de las Naciones Unidas (UN) (2015a). Objetivos de Desarrollo Sostenible. https://www.un.org/sustainabledevelopment/es/objetivos-de-desarrollo-sostenible/

Organización de las Naciones Unidas (UN) (2015b). Resolución 70/1 de la Asamblea General "Transformar nuestro mundo: la Agenda 2030 para el Desarrollo Sostenible" A/RES/70/1 (25 de septiembre de 2015). https://undocs.org/Home/e?FinalSymbol=A%2FRES%2F70%2F1&Langua ge=E&DeviceType=Desktop&LangRequested=False

[SDSN] (2020). Accelerating Education for the SDGs in Universities: A guide for universities, colleges, and tertiary and higher education institutions. New York: Sustainable Development Solutions Network. https://irp-cdn.multiscreensite.com/be6d1d56/files/uploaded/accelerating-education-for-the-sdgs-in-unis-ES-web.pdf

SDSN, Australia Pacific (2017). Getting started with the SDGs in universities: A guide for universities, higher education institutions, and the academic sector. Australia, New Zealand and Pacific Edition. Sustainable Development Solutions Network – Australia/Pacific, Melbourne. https://reds-sdsn.es/wp-content/uploads/2017/02/Guia-ODS-Universidades-1800301-WEB.pdf

Times Higher Education (THE) (2024). Top universities pursuing sustainable development goals in 2024. https://www.timeshighereducation.com/impactrankings#!/length/25/locations/ESP/sort_by/rank/sort_order/asc

Toro-Peña, Ó. (2020). El periodismo especializado en desarrollo en el marco de la Agenda 2030. Una mirada hacia España. En I. Aguaded-Gómez, A. Vizcaíno-Verdú (Eds. lit.), *Redes sociales y ciudadanía: hacia un mundo ciberconectado y empoderado* (pp.771-777). Grupo Comunicar. https://doi.org/10.3916/Alfamed2020

UNSDG. UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP (2022). Guidelines for the Advocacy and Communications Strategy of the Partnership Framework. https://unsdg.un.org/sites/default/files/2022-09/UNSDG%20Cooperation%20Framework%20Comm%20guidance SP%20%281%29.pdf

Vallaeys, F. & Álvarez-Rodríguez, J. (2022). El problema de la responsabilidad social de la Universidad. Teoría de la Educación. *Revista Interuniversitaria*, *34*(2), 109-139. https://doi.org/10.14201/teri.28599

Zeler, I., & Capriotti, P. (2018). Gestión interactiva de la comunicación de la RSE de las empresas de Argentina en Facebook. *Retos Revista de Ciencias de la Administración y Economía*, 8(16), 7-18. https://doi.org/10.17163/ret.n16.2018.01