

Research, Teaching
and Actions in Higher
Education on the
UN Sustainable
Development Goals

Research, Teaching and Actions in Higher Education on the UN Sustainable Development Goals

Edited by

María Alcantud-Díaz

Cambridge
Scholars
Publishing



Research, Teaching and Actions in Higher Education
on the UN Sustainable Development Goals

Edited by María Alcantud Díaz

This book first published 2021

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Copyright © 2021 by María Alcantud Díaz and contributors

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-5275-7177-7

ISBN (13): 978-1-5275-7177-8

TABLE OF CONTENTS

Foreword	vii
<i>Carles Padilla</i>	
Introduction	1
The Role of Higher Education in the 2030 Agenda: Education, Research, Governance and Social Leadership	7
<i>Ana Alcaraz Lamana and Carmen Lloret Catalá y María Alcantud-Díaz</i>	
Universities can be Closer to the Sustainability Issues that Motivate and Concern People: The Case Study of University of Valencia (Spain)	28
<i>Elena Martínez García, Pilar Rueda-Segado y Victoria Vázquez-Verdera</i>	
Higher Education as a <i>Common Good</i> ? Some considerations in light of the Sustainable Development Goals (SDGs) and university social responsibility (USR)	43
<i>Nicolás D. Ponce Díaz, María-Jesús Martínez-Usarralde and José Beltrán-Llavador</i>	
Didactic Thoughts on How to Generate Actions Based on the Critical Thinking Paradigm through a Project-Based Approach	61
<i>Elena Ortiz Ballester</i>	
Curricular Sustainability and International Cooperation in Foreign Language Teaching: A Case Study in India	82
<i>Amparo Rodrigo-Mateu and María Alcantud-Díaz</i>	
English Language Teaching & Gender: A Cross-Curricular Study at Secondary Education	99
<i>Ana García-Arroyo</i>	
Incorporating Sustainable Development Goals in Higher Education with a Care Approach: Applications for the TFG final dissertation course at the University of Valencia (Spain)	119
<i>Elena Mut Montalvá; Sergio Belda Miquel y Ana I. Vázquez Cañete</i>	

Learning Quechua in a Social and Cultural Community: A Global Experience	138
<i>Cristóbal Suárez-Guerrero y Américo Mendoza-Mori</i>	
<i>Black Diamonds: Digital Tools and Intercultural Cinema to Foster Education for Sustainable Development and Global Citizenship</i>	153
<i>María Botella Martínez</i>	
Education for Change: A CLIL Approach to Gender Equality	177
<i>Sara Campoamor Mollà</i>	
Gender Equality in TEFL: A Case Study through CLIL in Vocational Training.....	197
<i>María Alcantud Díaz and Natàlia Sánchez i Sánchez</i>	
Interculturality and Sustainable Development in Amazonian Folk Literature.....	215
<i>Anna Devís Arbona and J.V. Garcia-Raffi</i>	
An Assessment of Food Consumption in Two Orphanages for Institutionalized Nepali Children.....	234
<i>Lucía Fernández, Ana, Rubini, Jose M. Soriano and Jesús Blesa</i>	
SDG's for People in Children's Cinema: How to Analyze the Representation of Human Diversity	242
<i>Elia Saneleuterio and Eva París-Huesca</i>	
Ethnocultural Diversity of Students at the University of Valencia: Research and Actions in Higher Education.....	258
<i>Mut Montalvá, Elena; Giner Monfort, Jordi; Pérez Alonso, Yaiza y Torres Pérez and Francisco</i>	
How can we Combat Sexual Assaults on Women in Armed Conflicts from the Sustainable Development Goals? Analysis of Cases and Proposals for Action in International Cooperation	274
<i>Ana Sales Ten</i>	

FOREWORD

Only once in a while does a book on how the 2030 Agenda Sustainable Development Goals (SDG) can be taught and researched in Higher Education arrive on the scene that all teachers and researchers should own. *Sustainable Development Goals (SDG) of People: Research, Teaching and Actions in Higher Education*, coordinated by María Alcantud-Díaz, is such a book. I met Dr Alcantud-Díaz a long time ago when we were working at the same Faculty, this acquaintance turned into a closer relationship when she became part of the Cooperation-to-Development team I lead as the Vice-Chancellor for Internationalization and Cooperation of the University of Valencia (UV) (Spain).

María joined my team as the Director of the Chair of Cooperation and Sustainable Development (UV) more than one year ago. There she started to work closely with the rest of the team: the Chancellor Delegate for Cooperation, Dr Carmen Lloret-Catalá, the Head of International Office, Carlos Pomer Monferrer, and the Cooperation Office Technician, Begoña Grijalvo, a team with more than 20 years of experience in the field of International Cooperation to Development. They have demonstrated her commitment to include SDG not only in our university but in society in general through initiatives like the one presented here supported by the Valencian Autonomic Government, Generalitat Valenciana. This organism has widely demonstrated its commitment to Cooperation for Development and its trust in State Universities. Thus, I would like to thank particularly the former Autonomic Secretary for Cooperation and Democratic Quality, Belén Cardona, the current one, Antonia Serna Serrano and the General Director of International Cooperation to Development, Xelo Angulo Luna for this.

There are a lot of ideas and useful information packed into its 16 chapters that contribute to the common goal that the UN 2030 Agenda is for all human beings. Hence, it gives me great pleasure to contribute this foreword. This book has been written with the effort of many teachers and researchers of different universities around the world and involving students from different settings.

The objective of this publication is to share ideas, experiences, thoughts and findings related to the presence and inclusion of the SDG in Higher Education. In my opinion, it might shed some light on the path towards a more sustainable world and a more willing-to-take-action group of teachers and students who wanted to work, from their different fields of study, for a better society.

Carles Padilla
Vice-Principal for Internationalisation and Cooperation
University of Valencia
Spain

INTRODUCTION

The United Nations (UN) 2030 Agenda for Sustainable Development was embraced by all UN Member States in 2015. This Agenda is a cry of alarm, a plan, an urgent call to encourage people from all countries – North and South - to take action for people, planet and prosperity within a global partnership. Thus, as the UN explains¹, the 2030 Agenda is determined

to free the human race from the tyranny of poverty and want and to heal and secure our planet. We are determined to take the bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path. As we embark on this collective journey, we pledge that no one will be left behind.

The Agenda includes 17 Sustainable Development Goals (SDG) and 169 targets which pursue to accomplish the human rights of all and to attain gender equality and the empowerment of all women and girls. The 17 SDG are integrated and undividable and balance the three dimensions of sustainable development: the economic, social and environmental, mentioned by the UN, together with the cultural one, that in our opinion should be the fourth dimension. The SDG and the targets related to them aim at working in five different areas of vital importance for humanity and the planet we live in, the so-called 5Ps (People, Planet, Prosperity, Peace and Partnership).

The book we present here, *Research, Teaching and Actions in Higher Education on the UN Sustainable Development Goals* has been promoted and coordinated by the Chair for Cooperation and Sustainable Development (People) of the University of Valencia (UV) in Spain². This Chair is co-financed by the Generalitat Valenciana (Valencian Government) together with those of the other four Valencian public universities: the Polytechnic University of Valencia, the University of Alicante, the University Jaume I in Castellón and the University Miguel Hernández in Elche. Each university is carrying out activities related to one of the five

¹ <https://sdgs.un.org/2030agenda>

² <https://www.uv.es/cooperation-sustainable-development-chair/en/chair-cooperation-sustainable-development.html>

central axes of the SDG. The Generalitat, through the Regional Ministry of Participation, Transparency, Cooperation and Democratic Quality, and the University of Valencia are collaborating to carry out a variety of activities to train future professionals in areas of unquestionable interest to the citizens of the Valencian Community within the scope of the SDG of the United Nations Agenda 2030. Within this context, the Chair for Cooperation and Sustainable Development (UV) is committed to taking the lead in the search for practical and viable solutions to the challenges of achieving sustainable development, working from our local sphere but with global aspirations. We do this from where we know, through research and education, gathering all the information needed to make decisions together with people capable of taking action. Thus, we seek to eliminate poverty and hunger; promote a healthy planet and way of life; implement quality education and achieve equality for all people. These are just some of the most important challenges we face to achieve a sustainable world. They are our challenges. It is going to take a lot of effort on many levels, but as part of a university, of the educational world, we have to work to achieve it - and we will not leave anyone behind.

Hence, as part of the actions taken, the objective of the present book is to show actions, provide ideas and encourage readers to take action and raise awareness in the fields of research and teaching in the context of Higher Education in terms of the People area. This entails SDG1 No Poverty, SDG2 Zero Hunger, SDG3 Good Health and Well Being, SDG4 Quality Education and SDG5 Gender Equality

Thus, a collection of 16 contributions from thirty-three researchers and teachers dealing with topics related to *Research, Teaching and Actions on SDG of People in High Education* have been edited here. Following the introduction, Alcaraz Lamana, Lloret Catala and Alcantud-Díaz's thought-provoking chapter addresses the topic of the role of Higher Education in the Agenda 2030 in the fields of Education, Research, Governance and Social Leadership. They introduce the different aspects, actions and results that the United Nations expects Higher Education Institutions to be involved with. Besides, they invite the reader to reflect on a key aspect, namely, to examine the SDG five core principles: transdisciplinarity, interconnectedness, shared responsibility, subsidiarity, localisation and appropriation, and assessment and accountability. In their contribution in chapter two, Martínez García, Rueda-Segado and Vázquez-Verdera show how the University of Valencia makes an effort to be closer to the sustainability issues that motivate and concern people. They explain how the public policies that must articulate the societies of the 21st century want to be transformed and with them the

cultural and political patterns that (re)produce and legitimize our individual and collective practices. In chapter three, Ponce Díaz, Martínez-Usarralde and Beltrán Llavador open the discussion around the concept of higher education as a “common good”, reinforcing its collective dimension in terms of shared responsibilities and social commitment. Their work focuses on common good governance via an adequate implementation of University Social Responsibility (USR), a vision of governance that is open to dialogue, criticism, and participation, one that will allow us not only to create new spaces for community dialogue and participation, but also to stimulate the development of the 2030 Agenda and the 17 SDGs in the cultural, social, political, and economic context of each territory.

Chapter 4 opens a window to the educational aspect of SDG. Thus, Ortiz Ballester provides some didactic thoughts to generate critical thinking classroom actions. Her chapter reinforces the idea of incorporating significant and meaningful input in the Second Language class highlighting the students’ global citizenship spirit through creating didactic units to learn about the SDG. Along the same lines, Rodrigo-Mateu and Alcantud-Díaz describe and evaluate a case study set at the University of Mumbai, in India, aimed at developing a curricular sustainable project in the Spanish as a Foreign Language class. Their objective is to address the importance of raising awareness on the participants by working on sustainable development in Foreign Language Teaching, which also involves the development of intercultural and sociolinguistic awareness.

Gender equality is one of the main concerns of the authors. Thus, García Arroyo in chapter six portrays an educational innovation project carried out with her master students (pre-service teachers) aimed at making them adopt an engaging methodology that uses literary texts to promote gender equality in the teaching of English as a foreign language. Related also to SDG5 Gender Equality, Mut Montalvá, Belda Miquel and Vázquez Cañete consider to choose the TFG (Trabajo de Fin de Grado: Bachelor’s Degree Final Dissertation) an opportunity to bring about a university for change. Hence, based on a transformative reading of the SDGs and their application through the care approach, they present an operational proposal that could guide this type of process in the TFG courses and contribute to building new approaches in disciplines with a transformative vocation, such as Social Work and the Bachelor of Business Administration (BBA).

In their chapter, Suárez-Guerrero and Mendoza-Mori seek to make a reading of language learning and teaching as a process of social and cultural acquisition, as well as highlighting the design of the Quechua language

program at the University of Pennsylvania and other similar initiatives in the United States interconnected for this purpose. The purpose of this educational initiative is that the Quechua culture, and its society, could have a presence in world conversations about the design of the present and future. Thus, they show how SDG3 can be seen as a measure to value and recover this legacy on education and Indigenous languages, especially the ones linked to Educational Development (SDG4) and the reduction of inequality (SDG 10). In turn, in chapter nine, Botella Martínez discerns the vital role of education in the development of the person, and the parallel improvement of relations between humans in the world to cope with UN SDG 4. She seeks to foster Education for Sustainable Development and Global Citizenship through cooperative activities in the English as a Foreign Language class. Additionally, she uses Intercultural Cinema as the main tool to work on the aforementioned issues. The film *Diamantes Negros* (Black Diamonds³, 2013) was the main tool used to attain her goals.

In turn, Campoamor Mollà argues in chapter ten that a new model of education arises by bringing the UN SDG into the context of classrooms, fostering students' critical thinking and social awareness, and helping them develop problem-solving skills, to face the problems of society. Her project takes gender equality (SDG5) as the unifying thread, and also deals with good health and well-being (SDG3), quality education (SDG4) and reduced inequalities (SDG10). The objective of this proposal is to show how students acquire some values while learning the grammatical aspects and practice the skills set in the syllabus of EFL. To that end, the methodology used was Content and Language Integrated Learning (CLIL). This same methodology is used by Alcantud-Díaz and Sánchez i Sánchez in the following chapter. They describe a case study aimed at Teaching English as a Foreign Language (TEFL) in Vocational Training (VT) in Spain through SDG. They implemented a didactic proposal related to the instruction of the SDG through CLIL based on SDG 5, a potential method to scaffold students' learning.

In chapter twelve, Devís-Arbona and García-Raffi use a qualitative methodology based on the translation and analysis of oral tales collected from the Ashéninka culture of the Peruvian Amazonia. They seek to evaluate the presence of the SDG in the sample corpus of folk tales and show how the SDG, particularly those referring to People, are reflected in them. Their objective is to raise awareness among Higher Education students about the need to live in harmony with the needs of the world's

³ <https://www.youtube.com/watch?v=AquHxRZIM1Q>

population. Besides, they want to analyse the importance of folk literature as a token of the culture to which it belongs. Additionally, they want to establish common references among different cultures to promote intercultural dialogue in the classroom.

The issue of malnutrition is dealt with in Fernández, Rubini, Soriano and Blesa's chapter. They show how malnutrition represents an often-invisible impediment to the successful achievement of the SDG that affect not just from a lack of sufficient and adequately nutritious and safe food but also implicated from a host of intertwined factors linking health, care, education, water, sanitation and hygiene, access to food and resources, women's empowerment and evermore. They also show how at least 12 out of the 17 SDG contain indicators that are highly relevant both directly and indirectly to nutrition. Their research was conducted in the Nepali town of Hetauda, home of the administrative headquarter of Makwanpur district, placed in the central region of Nepal.

In chapter fourteen Saneleuterio and París-Huesca describe a project aimed to develop a corpus of recently released animation cinema from which to analyze the presence or absence of cultural, racial, sexual diversity, etc., and its educational implications. The study is drawn from four axes: intercultural and multicultural education, gender studies, affective-sexual diversity, and the development of the SDG, mainly those related to People. They aim to categorize the different representations of individuals in these types of works aimed at children. Additionally, they seek to carry out a didactic guide that considers SDGs from a comprehensive education perspective of the Person, to combat discriminatory prejudices and stereotypes. In chapter fifteen, Mut Montalvá, Giner Monfort , Pérez Alonso and Torres Pérez present and analyse the most significant results of an analysis of the ethnocultural diversity of students at the University of Valencia (UV). The aim of this analysis is to ascertain the discourses and perceptions of ethnocultural diversity among the general student body at the University of Valencia. They also try identify the needs and obstacles that students of diverse ethnic and cultural origins face in their everyday university life. Finally, in chapter sixteen, the issues of war is also present in this collection. In the last chapter of this book, Sales Ten analyses, from the SDG point of view, the situation that women face in armed conflicts, considered across the world one of the most severe ways of violence towards women. Namely, her chapter aims to make visible the new ways of sexual violence in armed conflicts towards women, and carry out an analysis which allows to take actions through SDG with the aim of creating new opportunities of development.

Each chapter of this book derives from different proposals to bring the SDG of People up to date. It is possible to find common ground for some of the contributions, particularly those on the theme of gender equality. We think that *Sustainable Development Goals (SDG) of People: Research, Teaching and Actions in High Education* will be a useful reference for those putting into practice a modernised, life-long and transdisciplinary implementation of the Education for Development and Global Citizenship. Thus, this book provides an inspiring and useful source for teachers and researchers interested in designing a wide-ranging programme of SDG awareness rising education that encompasses such topics as poverty, hunger, health and well-being, quality education and gender equality.

Dr María Alcantud-Díaz
Director of the Chair for Cooperation and Sustainable Development
(People)
University of Valencia (Spain)

THE ROLE OF HIGHER EDUCATION
IN THE 2030 AGENDA:
EDUCATION, RESEARCH, GOVERNANCE
AND SOCIAL LEADERSHIP

ANA ALCARAZ LAMANA,
ANA.MARIA.ALCARAZ@UV.ES
CARMEN LLORET CATALA
M.CARMEN.LLORET@UV.ES
AND MARÍA ALCANTUD-DÍAZ
MARIA.ALCANTUD@UV.ES
UNIVERSITY OF VALENCIA (SPAIN)
RESEARCH GROUP TALIS

Abstract

Transforming our global socioeconomic model to adhere to current sustainable development principles is an urgent challenge to ensure social, economic, and environmental sustainability. The United Nations launched the 2030 Agenda – the largest international agreement in human history – to address this challenge. That is the reason why adhering to the 2030 Agenda and trying to meet its 17 Sustainable Development Goals (SDGs) is not optional, nor a demonstration of solidarity, but a pressing demand and an indispensable commitment to co-responsibility. Higher education institutions (HEIs) are one of the institutions with the greatest potential to transform any society. It is a fact that education is the best strategy to fight poverty and social injustice and that research can help societies to find solutions to their social, economic, health, and environmental problems, among others. That is why higher education must play a fundamental role in promoting the 2030 Agenda and its Sustainable Development Goals. But what does that role involve? What level of responsibility should HEIs assume? What areas of their activity should be implemented by the 2030

Agenda? What specific actions can be taken to achieve this? What specific results are to be expected? This chapter tries to answer these questions and frame the collection of texts in this book, introducing the different aspects, actions and results that the United Nations expects HEIs to be involved with. Firstly, we want to invite the reader to reflect on a key aspect: analysing the role of HEIs concerning the 2030 Agenda is important not only to know the content of the 17 SDGs, but also to examine their five core principles: transdisciplinarity, interconnectedness, shared responsibility, subsidiarity, localisation and appropriation, and assessment and accountability. Analysing these principles will allow us to visualise the real scope of our contribution. We will detail below, the fields of work that HEIs must structure their contributions around, according to the methodology proposed by the United Nations (Sustainable Development Solutions Network - SDSN, 2017): learning and teaching, research, governance, and external leadership. Detailing areas of work and objectives is not only a roadmap for HEI action: it also unfolds a new vision of higher education. An inspiring vision, one that goes beyond specific teaching or research results – which so often tend to mesmerise HEIs, caught in the momentum of everyday operations or the pressure of international rankings. A vision of higher education as a core element in the creation of inclusive, creative and resilient societies that can live in harmony with nature under a sustainable development model that leaves absolutely no one behind, and where we will never again need to create a global agenda to stop unsustainability.

Keywords: Higher Institutions, Sustainable Development Goals, Learning and Teaching, Research, Governance, External leadership.

1. Introduction: the 2030 Agenda and the SDGs

On 25 September 2015, the United Nations General Assembly adopted the Resolution "*Transforming our World: The 2030 Agenda for Sustainable Development*". The Agenda aims to address the most pressing challenges of global society and its design was based on the insights from the first major global initiative for sustainable development: the Millennium Development Goals (MDGs), adopted at the 2000 United Nations Summit, which set the first deadline in 2015. The SDGs were born with a vocation to go much further than the MDGs in scope, coverage, innovation and participation. Their development was based on an open dialogue between governments, companies from all sectors of activity, academic institutions, NGOs, experts, and civil society.

1. 1. The responsibility of higher education institutions

HEIs are one of the actors with the greatest potential for social transformation and, therefore, with the most responsibility in the fight against the problems underlying current global challenges. An international consensus already exists on this statement (Unesco, 2016; SDSN, 2018; Körfggen, Förster, Glatz, Maier, Becsi, Meyer, & Stötter, 2018), based on the fact that higher education

- is considered the most important activity/strategy of any society to achieve social welfare and justice,
- has the ability to analyse realities and thus to identify and characterise the challenges we must face,
- has the ability to define solutions to societal problems,
- has great innovation potential thanks to its generation of knowledge, development of the necessary technologies, etc.,
- is a convergence forum for the intellectual elite of a country or region,
- is the scene for the training of future generations of leaders and professionals,
- has the ability to promote critical and systemic thinking,
- has the ability to exercise a social leadership role,
- can become a referent for the implementation of sustainability measures,
- can generate new questions to inspire new lines of research and the development of socially relevant knowledge,
- has the potential to generate alliances with other social agents for the joint development of knowledge and its practical application.

In the words of Körfggen et al. (2018): “HEIs can take on a role as change agents for societal transformation at the interface between scientific, political, and societal stakeholders and institutions”. In this sense, the authors of that research highlight HEIs’ potential and responsibility to participate with greater intensity and commitment not only in their teaching and research activity but also in the definition of sustainability-oriented public policy.

1. 2. The HEI-SDG relationship

In their publication “Getting started with the SDGs in universities” (SDSN, 2017), the United Nations points out that the SDGs require HEIs commitment and active participation (Figure 1), but also stresses the

opportunities for HEIs arising from the 2030 Agenda and how these institutions actually “need” the SDGs, too (Figure 1).

How do Universities help the SDGs ?



Figure 1. Why do the SDGs require HEIs’ collaboration? (Source: Created by the authors from SDSN, 2017)

The main contributions to the Agenda expected from HEIs are:

- 1- To provide knowledge, innovations and solutions to the SDGs. Addressing SDG-related challenges will require innovations and transformations, and HEIs are key innovation actors.
- 2- To create current and future SDG implementers. HEIs influence on global development is ever-increasing, thanks to their students and alumni, campuses, and talent-development activities.
- 3- To demonstrate how to support, adopt and implement SDGs in governance, operations and culture. HEIs are complex and diverse institutions with an important social, economic and environmental impact. By implementing SDG principles, they will lead by example and contribute to achieving the goals.
- 4- To develop cross-sectoral leadership to guide the SDG response. HEIs have the capacity and responsibility to guide and lead the local, national and international response to further SDGs through cross-sectoral efforts and the creation of alliances.

Why do HEIs need the SDGs? Benefits and opportunities that the SDG can provide for HEIs :

As shown in figure 2, HEIs need the SDGs:

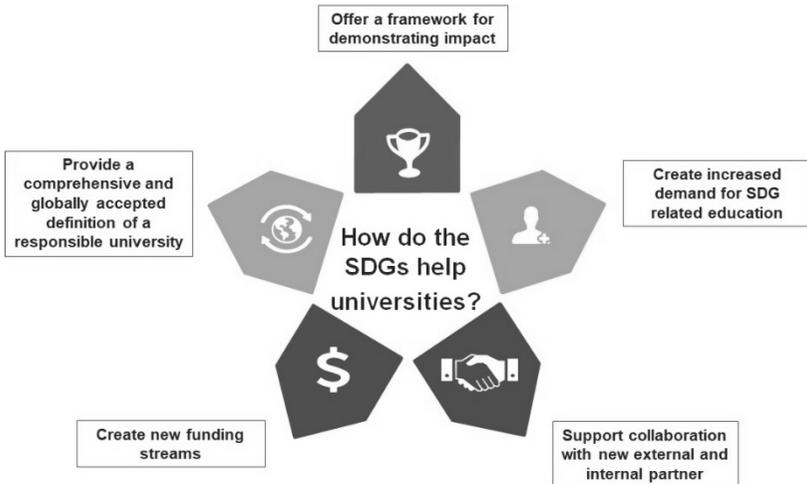


Figure 2. Why do HEIs need the SDGs? (Source: Created by the authors from SDSN, 2017)

1. To offer a framework for demonstrating impact. The SDGs provide a new and integrating way to communicate and prove how HEIs contribute to global and local well-being and, consequently, to communicate their impact and relevance.
2. To create increased demand for SDG related education. As governments and companies continue to incorporate SDGs in their strategic approaches, the demand for SDG expert graduates will increase.
3. To support collaboration with new external and internal partners. The SDGs provide the opportunity to create synergies and collaborations with the government, industry, and community, both in research and in education.
4. To create new funding streams. The more resources are allocated to it, the more the demand will grow for graduates who can understand and implement the agenda.
5. To provide a comprehensive and globally accepted definition of a responsible HEI.

In their pursuit of a societal role in the 21st century, HEIs are trying to be more sensitive to societal needs and become agents of change that can solve global challenges. In addition, they have the moral imperative to support the SDGs as part of their social mission and basic functions.

1. 3. Areas of action

The United Nations' guidelines for the implementation of the SDGs in HEIs structure their work in four areas of action: education, research, operation and governance, and social leadership.

2. Education in the 2030 Agenda

The SDGs recognise the importance of education to achieve sustainable development through SDG 4. But, apart from being one of the 17 SDGs, education is closely related to the rest of the goals and plays a paramount role in supporting their implementation. This is because:

- Quality education leads to better development results for individuals and, by extension, their communities and countries.
- SDG implementation will require addressing a wide range of multifaceted and interconnected social and environmental challenges; these involve complex interconnections, uncertainties, and conflicts of values. Equipping students with the necessary skills to think through such complexity, to transcend paradigms, to learn through dialogue and communication, to participate in profound reflection, to generate a worldview and values, and also to notice when actions support or undermine SDGs, will help to create more effective SDG implementers and speed up the implementation of the rest of SDGs.

2.1. What type of education do we need?

The 2030 agenda understands education (see figure 3 below) as:

- Universal: the SDGs seek to build a universal agenda that is relevant to all societies – regardless of their level of income and/or level of development – defined in terms of the universality of principles (human rights), the universality of reach (with an emphasis on equity and inclusion), and universality of geographical coverage.
- Lifelong learning opportunities for everyone: guaranteeing universal preschool, primary and secondary education to generate effective and relevant results for all children, young individuals and adults, as the basis for lifelong learning.

- Renovated and broad interest in inclusion, equity and gender equality.
- Interest on effective learning and the acquisition of relevant knowledge, competences and skills.
- Another innovative aspect of SDG 4 is the importance it awards to relevant skills, both in terms of technical and vocational competence for decent employment (Goal 4.4) and the exercise of “global citizenship” in a plural, interdependent and interconnected world (Goal 4.7)

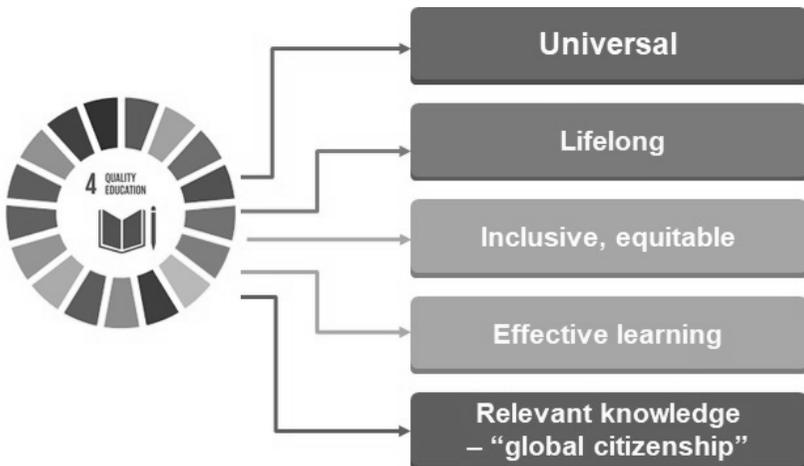


Figure 3. Characterisation of education according to the 2030 Agenda (Source: Created by the authors).

2.2. What should HEIs do to contribute to the 2030 Agenda through education?

The methodology developed by the SDSN sets out objectives that HEIs should incorporate to contribute to the advance of the SDGs and propose specific actions. We will now list the key ideas of that document.

First, the main goals that should be pursued by HEIs are:

1. Providing students with the knowledge, skills and motivation to understand and address the SDGs.

2. Empowering and mobilising young people.
3. Providing in-depth academic or vocational expertise to implement SDG solutions.
4. Providing capacity building for students and professionals from developing countries to address SDG-related challenges.

Among others, the following activities could be undertaken by HEIs to realise these goals:

- To integrate the SDGs and the principles of education for sustainable development (ESD) into all undergraduate and graduate courses, as well as graduate research training.
- To provide training on the SDGs and ESD to all curriculum developers, course coordinators and lecturers.
- To offer executive education and capacity building courses for external stakeholders on the SDGs and the knowledge and skills needed to address them.
- To advocate for national and state education policies that support education for the SDGs.
- To engage students in the co-creation of learning environments and opportunities that support learning on the SDGs.
- To give young people opportunities to be heard and participate in university governance decisions relating to the SDGs.
- To promote student volunteering activities that address the SDGs.
- To form strong links with business and industry to monitor employer trends and skills requirements, for example through business communities of practice.

3. Research in the 2030 Agenda

Our societies and environment are facing unprecedented problems against which we have no precise answers or solutions. We need to address the transformation of entire aspects of our society and economy or the way we relate to nature. In this sense, “Universities, through their extensive research capabilities and activities, play a critical role in providing the necessary

knowledge, evidence-based, solutions and innovations to underpin and support this task” (SDSN, 2017, 16).

Unlike education, research is not connected to just one SDG. The objectives of several SDGs are related to the need to drive research activities.

3.1. What type of research do we need?

The 2030 Agenda considers research a fundamental endeavour for the successful implementation of all SDGs. The reference document of the 2030 Agenda states that research should contribute in the following ways:

- Understanding the challenges: We need to understand the causes and dynamics of the sustainable development challenges represented by the SDGs to identify the best policies and solutions to address them. Research is critical to filling the many gaps in our understanding of the physical world, the human systems, and the interactions between them that contribute to these challenges.
- Localising the SDG agenda: Research also plays a key role in translating the global SDG agenda to national and local contexts – including helping to identify relevant local challenges, priorities for action, and appropriate indicators for measuring local progress.
- Developing solutions: Research is necessary to drive the development of social and technological innovations and solutions across SDG challenges. This will include the development, testing, piloting and upscaling of solutions, as well as understanding the conditions and barriers for them being implemented.
- Identifying and evaluating options and pathways: SDG implementation is “directed”, in the sense that we know where we want to get to. However, finding the best pathway to get there can be challenging due to the radically diverse contexts across each country and community; the inter-dependencies that can lead to trade-offs or synergies between the goals; and the likelihood that every pathway will include some winners and some losers.
- Supporting the operationalisation of the SDG framework: The research community had an important role in shaping the global SDG agenda, but there are still many gaps and unknowns about how best to implement it. As such, research has a critical role in, for example, determining how to monitor and evaluate progress, how to systematically address interlinkages between the goals, and how to incorporate the SDG agenda into national and regional policy

frameworks. The research community will also have an important role in synthesising and assessing global progress on the SDGs.

3.2. What should HEIs do to contribute to the 2030 Agenda through research?

The United Nations proposed that HEIs should work on 5 objectives related to the field of research:

1. Encourage and promote the SDGs as a topic of research.
2. Support the full spectrum of research approaches needed to address the SDGs, including interdisciplinary and transdisciplinary research.
3. Support and incubate innovation for sustainable development solutions.
4. Actively support national and local implementation of the SDGs.
5. Advocate for national support and coordination of research on the SDGs.

What specific actions could we undertake to reach these objectives? Some of the examples from the text are:

- Raise awareness and the profile of the SDGs among researchers.
- Help researchers to understand how their research currently relates and connects to various goals.
- Prioritise research relating to the SDGs and recruit suitable academic staff.
- Develop academic promotion criteria that value contributions to the SDGs.
- Showcase research relating to the SDGs and highlight the SDGs in major flagship projects.
- Build capacity of all researchers (including Early Career Researchers and graduate students) in interdisciplinary research and other new research approaches.
- Provide structures and forums to encourage interaction, idea generation, and integration across disciplines
- Collaborate with businesses to develop new technologies and solutions to address the SDGs.
- Arrange innovation challenges to address the SDGs for researchers across the university and external stakeholders.
- Play a lead role in policy development for sustainable development.

- Provide expert advice on SDG implementation to other sectors, such as business, state governments and local governments.
- Help set national research agendas and priorities around addressing the SDGs.
- Form partnerships and programs around areas of relevance to the SDGs.

4. Governance of HEIs in the 2030 Agenda

One of the obstacles when trying to include the 2030 Agenda to HEIs is that the approach to learning, teaching, research and governance is not balanced. Teaching and research seem to be at the core of university life, while governance and administration do not appear to be as interconnected as the other two fields. However, the chance for making connections between these areas can be improved by the SDGs (SDSN Australia/Pacific, 2017).

Since HEIs are considered organisations, their internal management and relationship with their surroundings could have a positive or negative impact on the economy, society and environment (Alcaraz & Alonso, 2019). Therefore, HEIs must become aware that they should integrate the principles, guidelines and objectives of the 2030 Agenda within their internal management. According to SDSN guidelines (SDSN Australia/Pacific, 2017), all institutions will have some impact on how the SDGs manifest within their working circle of influence. Depending on the nature and size of each organisation, its impact on the SDGs can be noteworthy. Concerning these impacts, it is important to remember that HEIs are likely to be significant employers, consumers, investors and owners of real estate. They oversee broad communities of staff, students, and providers. Their campuses could work as small cities and they could create significant flows of people and goods that might require some investment in neighbouring infrastructure. They can also influence far beyond their regions, thanks to their supply chains and their increasingly international reach (Alcaraz & Alonso, 2019). As a result, HEIs have an impact on every SDG.

4.1. What kind of HEI governance do we need?

As a first step, we need to be aware that governance aims at integrating SDG principles into HEIs' institutional culture and management, which entails policies, protocols and procedures (De Vall & Pubill, 2018). Thus, sustainable campus management should be the target of HEI governance.

Along this line, the SDSN guidelines (SDSN Australia/Pacific, 2017) propose that HEIs apply criteria and frameworks for action based on University Social Responsibility (USR). This involves identifying the whole extent of their impacts (social, environmental, economic, academic and cognitive) and taking responsible action to realise them.

There is a significant overlap between SDGs, and this should also be the case with HEI internal procedures, which should implement social responsibility and sustainable campus activities – with which many HEI are already profoundly committed. The SDGs are an opportunity to connect these activities and show that they could help to set the foundations of sustainable higher education. This involves dealing with socially responsible employment policies, human resources and environmental management, as well as sustainable finances, campus services, facilities, purchases and the relationship with students (Alcaraz & Alonso, 2019).

4.2. What should HEIs do to contribute to the 2030 Agenda from internal governance?

A good starting point, as De Vall and Pubill (2018) propose, is to invite or even challenge HEIs “to acknowledge their unsustainable pathways”. Nevertheless, SDG localisation in HEIs should not take place randomly. As Nhamo and Mjimba (2020) explain, the Sustainable Development Solutions Network (SDSN) Australia/Pacific (2017) has provided a five-stage approach guide on how to get started and localise the SDGs in HEIs. The first stages are mapping what HEIs are already doing; then, building capacity and ownership of the SDGs and identifying priorities, opportunities and gaps (p. 6). Subsequently, there is a need to integrate, implement and embed the SDGs in all practice (p.6), to finish with the monitoring, assessment and communication of the actions. In this sense, there are some examples of good practices that are worth mentioning. This is the case of the University of the West of England (UWE), Bristol, in the United Kingdom, and its roadmap to localise the SDGs, named “Meeting the UN Sustainable Development Goals: the contribution of the University of the West of England, Bristol”. Another example is Okayama University (2017), which is using the SDGs as a shared language for communicating the university’s activities to the world. “The communication permits the university to visualise its effort and press towards building new partnerships with both its local and international stakeholders.” (Nhamo & Mjimba, 2020:7).

Additionally, the United Nations proposes a general objective, namely, to align HEI governance structures and operational policies with the SDGs, within the framework of university social responsibility. According to Alcaraz and Alonso (2019), this could be materialised by: a) Investigating how each HEI's high-level information strategies, policies, plans and indicators align with the SDGs and identifying which organisational units are relevant to each of them, b) developing university social responsibility policies and plans, and c) integrating the SDGs in university management reports.

Finally, as Zhou, Rudhumbu, Shumba and Olumide (2020) highlight, for SDGs to become a reality within a particular HEI, first they have to become part of its culture so that all members of the academic community, including the administration staff, feel included in SDG-related action and include the goals in all their university activities, events and procedures. Hence, sustainable development has to be institutionalised and permeate every corner of the institution; it needs to become the shared responsibility of all members of the institution and be “reflected in institutional management, the curriculum and its implementation, research and extension services” (Junyent, Mulà, & Fonolleda, 2018). Moreover, establishing partnerships and defining areas of collaboration (Turner & El-Jardali, 2017), could help HEIs to contribute to “knowledge and skills transfer as well as contribute to the provision of sustainability services to society” Zhou et al. (2020: 91). Additionally, it will facilitate dialogue across multiple actors: government, private sector, the academic and scientific community, civil societies and the public (Greenhalgh, Jackson, Shaw, & Janamian, 2016). It will also lead to the co-production and co-creation of knowledge, which, in turn, may result in increased societal impact and the solution of complex twenty-first-century challenges.

5. HEI social leadership in the 2030 Agenda

According to SDSN (2017), an essential area of action for HEIs to contribute to the achievement of the SDGs is social leadership. It is known that the SDGs can only be achieved by working in a coordinated way, establishing alliances and harmonisation systems between countries and their different social actors. In this sense, HEIs are considered to have the potential and required resources and capacities to assume a leadership role in promoting SDGs.

The world leaders attending the United Nations meeting which gave way to the resolution approving the 2030 Agenda stated that the future of humanity and the planet was in everyone's hands. From that moment on, we have drawn the path to sustainable development and it is our responsibility to guarantee the success of the journey and the irreversibility of its benefits (Alcaraz & Alonso, 2019). This path involves governments, including their parliaments, the United Nations organisations and other international institutions, local authorities, indigenous peoples, citizens, businesses and the private sector, and the scientific and academic community; i.e., every social component.

Collaboration will also be essential, as described in SDG 17, target 17.16, aiming to enhance

the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

(UN, 2015)

Mobilisation and collaboration of this extent require noteworthy leadership and support to coordinate all stakeholders, and “universities are at the forefront in implementing SDGs, particularly in terms of educating leaders of the next generation” (Mori Junior, Fien, & Horne, 2019; 2020). Moreover, we will need to develop their capacity to understand and implement the SDGs, as well as to facilitate conversations, mutual learning and alliances between different sectors. Universities traditionally stand in a distinctive social position, since they are institutions devoted to generating knowledge and teaching for the benefit of civilisation. This makes them particularly suited to lead the implementation of the SDGs (Alcaraz & Alonso, 2019). They have the citizens' trust and are considered neutral actors by other sectors.

5.1. What should universities do to contribute to the 2030 Agenda through leadership?

Within the sphere of leadership, HEIs should address the following objectives, according to Alcaraz and Alonso (2019: 58-59, based on SDSN, 2017): a) to strengthen public commitment and participation to address the SDGs, b) to initiate and facilitate dialogue and action among the different

sectors regarding the implementation of the SDGs, c) to play a leading role concerning the development of policies and the promotion of sustainable development, d) to prove the importance of the higher education sector in the implementation of the SDGs, and e) to demonstrate the commitment of the higher education sector to the SDGs.

Furthermore, these authors suggest some real actions that could be carried out to achieve the proposed target. These proposals are: a) to convert HEIs into neutral platforms, i.e., safe spaces where the different stakeholders can come together to discuss the challenges of implementing the SDGs honestly, b) to facilitate collaboration and cooperation across the different sectors on solutions to address explicit SDG challenges, c) to generate partnerships and networks with other HEIs to mobilise the sector towards joint action on the SDGs, d) to sign the University Commitment to the SDGs and make the SDGs an essential part of university promotion, and e) to start high-profile public activities in support of the SDGs. Additionally, Geels and Schot (2007) mention a transition theory involving “small niche innovations, tactical and operational activities at the grassroots level like networks, science activism and student awareness pushed for regime-level changes” (Korhonen-Kurki, Koivuranta, Kuitto, Pietikäinen, Schönach, & Soini, 2020:27).

Figure 4 below provides an overview of the key contributions that universities are expected to make in order to meet the 2030 Agenda.

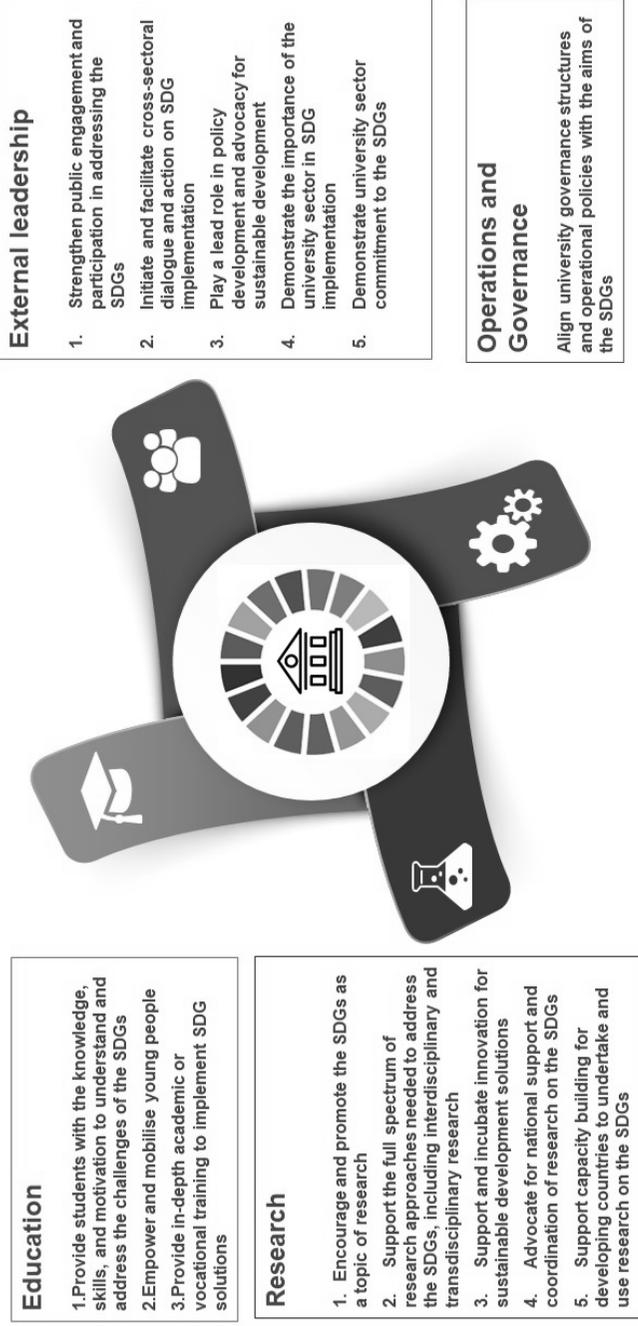


Figure 4. (Source: Created by the authors from SDSN, 2017)