DIALOGS & COMMENTARIES

Preparing Higher Education Graduates for a Sustainable Future: Global Perspectives in Action

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This paper focuses on how Higher Education Institutes can help to support Graduates so that they can be more prepared for a Sustainable Future. Consequently, the paper contributes by offering insights on the strategies adopted and the lessons learned for other Higher Education Institutions wanting to consider similar initiatives that address the United Nations Sustainable Development Goals (SDGs). To provide context and examples, two different global perspectives are offered – both focusing on sustainability and the SDGs. The first perspective focuses on a business school offering programs in Australia and Singapore and the second, features an Alliance comprising a network of ten leading universities from across Europe that joined together to transform higher education and strengthen their international dimensions. As outlined in this paper, Universities and business schools in particular, are considered critical in addressing the challenges posed by unsustainable practices. The paper argues that, as Higher Education Institutions (HEIs) have a role in preparing students to become informed, engaged, proactive citizens and ethical leaders who can contribute to a more sustainable, global future and positive societal change they can also play a key role in advancing the United Nation's Sustainable Development Goals (SDGs). It is intended that the insights offered provide other universities with strategies through the lessons learned to address the SDG goals both for HEIs in general, and in particular, to support university graduates when focusing on sustainability objectives in their future careers.

Introduction

Higher Education Institutes have traditionally been expected to play three significant roles – that of providing education, research, and some form of social contribution (Ashida, 2023). Angelaka et al (2024) cite the Sustainable Development Solutions assertion that Higher Education Institutes (HEIs) "can promote and support sustainable development and, consequently, the implementation of the SDGs in various ways; first, by incorporating sustainability principles into all university curricula and educational and research initiatives; second, by acting as vital local knowledge hubs for sustainability; and third, by elevating sustainability as a guiding principle in their own planning and administrative processes". Although many HEIs acknowledge the importance of the SDGs, topics related to sustainability are often not covered with enough depth and breadth in the curriculum

with (Biancardi et al., 2023) arguing that instead, HEIs tend to focus on sustainability "through campus operations and institutional initiatives". However, HEIs can play a key role in educating future leaders by fostering a sense of global citizenship and responsibility among students and by encouraging them to become active participants in addressing global issues as outlined here.

To achieve these goals, it is not enough to continue as before. Raising awareness and encouraging HEI staff and students to engage with the SDGs is likely to require many changes, including changes to curriculum, teaching and learning activities, research, and more. Lozano (2014, p. 205) proposes that such changes require a paradigm revolution "to break through existing knowledge barriers and current unsustainable mental models". Several years later Lozano (2022, p. 872) cites an earlier paper (Lozano et al., 2017) stating that for such change to occur educators are required to "rethink and redesign the way they use pedagogical approaches to better develop competences and a sustainability education paradigm".

At a more macro level, the UN's SDGs integrate sustainability principles within Goal 4, which stresses the role universities can play in advancing sustainability in their educational frameworks, fostering social responsibility and ethical practices in their students, researchers and the wider academic community (United Nations, 2015). The strength of the interactions between the government and universities depends on the government's general relationship to and policy towards higher education (Etzkowitz & Leydesdorff, 1998). That said, del mar Martinez Bravo et al (2024, p. 2) maintains that "local governments and inter-university coordinating institutions" have an essential role in "promoting sustainability in university studies" stating their commitment and leadership are essential in guiding educational policies towards the effective integration of sustainability in academic programmes.

to measure the success of HEIs in delivering on the SDGs, a league table was introduced in 2018 - the Times Higher Education (THE) University Impact Rankings. These rankings (discussed later in this paper) include metrics based on eleven of the SDGs, but only SDG 17: Partnerships for the Goals has mandatory reporting requirements (Kioupi & Voulvoulis, 2020).

Specifically, the paper outlines two strategic perspectives originating from two different areas of the globe. The first outlines how an Australian University is integrating the United Nations Sustainable Development Goals (SDGs) within the curriculum of its business school and the potential impacts. The University where the Business School is situated was ranked in the top 30 in the world for impact in the 2023 THE Impact Rankings. Understandably, the UN has reached out to businesses, encouraging them to take a leadership role towards the achievement of SDG targets, and use their financial, technological, and innovative resources to make a difference in terms of job creation, economic growth, and productivity (Nicolo et al., 2024). Sustainability education is fundamental to the development of

business leaders capable of generating positive impacts on society and the environment while driving economic growth del mar Martinez Bravo (2024, p. 2). This is where Business Schools can also make a difference.

The second initiative concerns the ENLIGHT Initiative, a European Alliance of ten comprehensive, research-intensive universities collaborate and exchange knowledge to address global challenges and shape the future. ENLIGHT focuses on six interconnected challenges that society is facing today. These challenges, called flagship areas, are key points that represent future-ready activities and are the starting point for research and innovation. In each flagship area, students, teachers and researchers work together on sustainable solutions to complex, real-world challenges that cities and communities face today.

University Engagement with the Sustainable Development Goals

Since the Times Higher Education's Impact Rankings launched in 2018, the number of participating universities has increased from 580 to 1,705 from 115 countries. These rankings measure an institution's success in delivering on the United Nations' Sustainable Development Goals (SDGs), indicating how the SDGs are influencing university activity. As pointed out by the World Economic Forum (WEF, 2023) these Impact Rankings are different to standard university ratings as they do not involve traditional metrics used to measure universities, such as academic reputation, resources and so on. Instead, universities are judged through a detailed assessment of the contribution they make to the (SDGs). Engaging with the SDGs requires a 'whole-of-university approach' whereby Kestin et al's (2017) guide on 'getting started with the SDGs in universities' suggests universities adopt the following steps, explicitly to: Map what they are already doing; build internal capacity and ownership of the SDGs; identify priorities, opportunities and gaps; integrate, implement and embed the SDGs within university strategies, policies and plans and to monitor, evaluate and communicate their actions on the SDGs.

In the case of the Australian University referred to here, it has ranked in the top fifty in the world consistently since it entered the rankings, with an overall ranking of twenty-eight achieved in 2023. This paper focuses on the University's Business School which became one of the early signatories to the Principles for Responsible Management Education (PRME), a United Nations-supported initiative, which aims to move the SDGs forward by helping future business leaders understand sustainable development goals as good business practice. In the mid-2000s, the UN Global Compact and its academic community recognised that future business leaders needed to take a critical role in tackling sustainability challenges. This is why the Principles for Responsible Management Education (PRME) initiative was launched in 2007 with a mission to inspire and champion responsible management education, research and thought leadership on a global scale. Today the PRME's website indicates that it creates opportunities and tools to transform teaching and learning in business and management education. With over

eight hundred signatory members across ninety-six countries PRME tracks the progress of their members through seven principles which are grounded in the sustainable development. PRME has become the largest organized relationship between the United Nations and management-related academic institutions, business schools and universities, PRME is, first, a global call to action based on seven Principles (PRME Principles, 2008). Originally, the PRME Principles focused on six principles, expanding to seven when the program underwent a refresh process in 2023, 15 years after the founding of PRME (PRME, 2024).

PRME highlighted the failure of traditional approaches to preparing graduates in a more responsible way of managing companies. It identified business education as the key to creating responsible managers incorporating the values of responsible corporate citizenship into their education activities (Escudero, 2011). del mar Martinez Bravo (2024) propose there are many aspects of business and management higher education that are directly linked to raising the sustainability awareness of business leaders. This includes corporate social responsibility , considering decision making impacts on people and the environment and promoting more ethical and responsible business cultures. Thus, an increasing number of business academics have begun considering that sustainability issues are imperative to the survival of business and the society. An analysis of one hundred signatories for PRME found that Business schools have the tendency to integrate sustainability into postgraduate programmes, with a particular focus on MBA programmes indicating a gap in the undergraduate education area where the SDGs are concerned (Godemann et al., 2011).

The Business School in question appointed a team to support the PRME principles, with a key objective of embedding learning objectives that were pertinent to responsible management into their assurance of learning. In particular, the intention to assess the extent to which all graduates attain skills and knowledge relevant to competencies, such as ethical management and social responsibility (*Business School Website*, 2024). For the past few years Program Convenors (those academics leading academic programs) have endeavoured to include SDGs relevant to specific courses and, to ensure that there is at least one course per degree program that focuses on the SDGs. For example, the Executive MBA (which was taught at the Australian campus but also, more recently at the Singapore campus) includes a capstone course on Executive Consulting. This course incorporates a Consulting Project whereby each student conducts research and produces a Sustainability Project Report on their own workplace. Involving businesses in business schools enhances the student experience (Graham, 2019) and helps to provide meaningful insights from both the business and student perspectives as the Executive MBA students all work full time. Although students are free to select their project focus, a key criterion of this assignment is that they must select a relevant SDG and explain how their project is intended to address the SDG selected. Students are instructed to use statistics and data, as well as

the information provided in SDG dashboards, workplace toolkits to address specific SDGs and more. They are also required to address why it is important to address the issues outlined, what (if anything) is already being done, how an organisational approach can assist the SDG focus as well as identifying what resources are needed and who will take responsibility for particular activities. Consequently, the key aim of this approach is to embed teaching and learning in the curriculum for business and management students.

At the Australian University, examples of SDGs selected by Executive MBA (EMBA) graduates have included: SDG3 (good health and wellbeing) SDG 12 (responsible consumption and production); SDG4, (quality education) and SDG5 (gender equality). Many EMBA students use their work-based assignments in their workplaces almost immediately after completing them which is a great model supporting 'theory into practice' (Eden & Ackermann, 2018). For example, one student (Chief Operations Officer Chief Operating Officer & Director Clinical Diagnostics) created a graduate program scheme in 2023 specifically targeted to help women in STEM and Indigenous students find industry work after they graduate. The company uses molecular science to help enable better diagnostic decisions in human diagnostics, animal diagnostics and applied testing. Following her own graduation the COO put the scheme into practice and partnered with her 'alma mater' to find suitable graduates. The program is scheduled to last 18 months taking graduates on a learning journey through six key modules and departments across the organisation to provide a rich 360-degree industry experience. Graduates are offered a competitive salary and an opportunity of a permanent position upon completion of the course. Quality Education (SDG 4) was another focus of a student project whereby a scholarship program was created to provide education for Indigenous students who were from disadvantaged backgrounds.

Through such projects students are prompted to engage in sustainability through active learning and, as a result, the process benefits their problem-solving skills both in their communities and workplaces (Filho et al., 2023).

Lessons learned from this example are that the academics teaching the course should be following up on the project outcomes to encourage more recent graduates to put their projects and learning into practice. This approach would have several positive outcomes. Firstly, the projects have the potential to advance progress on the SDGs; secondly publicising projects that advance SDGs in the workplace and beyond provides a strong employee value proposition (EVP) for those employees involved in the project and may also help to attract potential employees to the organisation in future. As Panneerselvam & Balaraman (2022, p. 1479) argue, EVP "is about getting people excited to do their best at work throughout the employee life cycle". Finally, putting the projects into practice assists EMBA graduate's own learning beyond the 'reactions' first stage of student responses (often referred

to as ticking smiley or grumpy faces), to the 'transfer and results' stages (whereby lasting results from learning can be identified) according to Kirkpatrick's (1983) well known training evaluation model.

ENLIGHT ALLIANCE

The ENLIGHT Alliance comprises a network of ten leading universities from across Europe that joined together to transform higher education and strengthen their international dimensions. ENLIGHT was created with the support of the European Commission's European Universities initiative, part of the Erasmus+ programme. The aim of ENLIGHT is to build an integrated European university system by 2028, free from barriers to learning, teaching and collaboration. The long-term vision is to become a leader in innovative and inclusive education that responds to the needs of the future (https://enlight-eu.org/). Moreover, the ENLIGHT Alliance aims to address global challenges and contribute to the Sustainable Development Goals (SDGs) set by the United Nations. The role of HEIs in this context is to promote the goals of the agenda through various means such as publishing research as a response to the SDG goals (Mori Junior et al., 2019).

HEIs have a unique position because they are considered neutral and influential players. They can collaborate with other sectors, using their expertise in research and education across all areas of the Sustainable Development Goals (El-Jardali et al., 2018). HEIs have the potential to function as key actors in promoting and disseminating sustainable development through their research, education, innovation, and social engagement. Their role is not only to provide high quality education, but also to develop and disseminate knowledge and solutions that contribute to solving pressing global problems such as poverty, inequality, climate change, environmental protection and sustainable economic development (Steele & Rickards, 2021). Through research, teaching and collaboration with various stakeholders, their role in achieving the SDGs includes promoting responsible behaviour and raising awareness of the challenges of sustainable development among students, staff and the wider public (Cuesta-Claros et al., 2022).

The ENLIGHT Alliance specifically differs from traditional university collaborations in its focus on six interlinked challenges called "flagship areas". These areas relate to not just education and research topics but are directly related to the Sustainable Development Goals (SDGs) set by the United Nations as outlined below in each flagship area and the respective SDGs (ENLIGHT (uniba.sk):

1. Climate Change: Related SDGs: 13 (Climate Action), 7 (Affordable and Clean Energy), 9 (Industry, Innovation, and Infrastructure), 15 (Life on Land)

ENLIGHT activities: research and development of sustainable technologies, education on climate change and adaptation strategies, promotion of environmental awareness and responsibility.

2. Digital revolution and Impact of digitization:

Related SDGs: 9 (Industry, Innovation, and Infrastructure), 16 (Peace, Justice, and Strong Institutions), 17 (Partnerships for the Goals)

ENLIGHT activities: developing safe and ethical digital solutions, cybersecurity, and digital skills education, promoting fair access to digital technologies, AI for good concept, AI, and sustainable society.

3. Health and Well-being: Related SDGs: 3 (Good health and well-being), 10 (Reducing inequalities), 11 (Sustainable cities and communities)

ENLIGHT activities: research in medicine and gerontology, education of health professionals, development of solutions for healthy ageing and aged care, urban health, brain and mental health, inequalities in healthcare access

4. Energy and circular economy: Related SDGs: 7 (Affordable and Clean Energy), 12 (Responsible Consumption and Production), 11 (Sustainable Cities and Communities)

ENLIGHT activities: Energy conversion and transition, energy-sparing materials, technology for urban resource recovery, water, and waste

5. Equity: Related SDGs: 10 (Reducing Inequalities), 16 (Peace, Justice, and Strong Institutions), 17 (Partnerships for the Goals)

ENLIGHT activities: research on global poverty and inequalities, education on development issues and global partnership, promoting sustainable development in less developed countries, access, and equity in future cities for long-term sustainability and resilience, migration, and refugees.

6. Culture and Creativity: Related SDGs: 4 (Quality Education), 11 (Sustainable Cities and Communities), 16 (Peace, Justice, and Strong Institutions)

ENLIGHT activities: promoting arts education and cultural exchange, researching the impact of arts and culture on society, developing creative solutions to global challenges, heritage, social cohesion.

Linking the individual flagship areas enables the ENLIGHT Alliance partners to seek solutions for sustainable development problems. For example, research in digital technologies can be used to develop solutions to address climate change (flagship areas 1 and 2). Similarly, artistic expression can promote social inclusion and environmental awareness (flagship areas 3, 4 and 6). In addition to its direct links to the SDGs, ENLIGHT has an indirect impact on the achievement of these goals. Promoting innovative and inclusive education, strengthening international cooperation and building capacity in research and innovation are all key factors that contribute to sustainable development (Mormina, 2019). The indirect impacts of ENLIGHT are:

- Strengthening European Higher Education through improving the quality and accessibility of education in Europe

- Making European education more attractive through attracting talented students to Europe from all over the world

- Promoting the competitiveness of the European economy through promoting innovation and research

- Contributing to equality through spreading understanding between diverse cultures

All these indirect impacts can be linked to various SDGs, specifically to SDG 4 (quality education), SDG 10 (reducing inequalities), SDG 8 (sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all) and SDG 16 (peace, justice, and strong institutions). Also, the ENLIGHT Alliance can play an important role in the global effort to achieve the Sustainable Development Goals. ENLIGHT, with its broad focus on education, research, and innovation, has the potential to make a difference in sustainable and equitable future. Alliances like this one can act as platforms to share experiences, best practices, and resources. (Bodley-Scott & Oymak, 2022). Not only the university alliances enable joint projects, research initiatives and training programmes that address key challenges such as environmental change, social inequalities, and economic sustainability, they also enhance mobility of students and academic staff and directly support knowledge sharing and enrichment (Martín Bautista-Cerro et al., 2023).

According to Roos at al. (2023), sustainability should be made a core institutional responsibility. As such it requires incorporating sustainability across all aspects of higher education, including the curriculum, research, governance, operations, and reporting.

Although there is a long history of collaboration and knowledge-sharing in higher education. one response to the growing need for sustainable development was a formation of university networks to address these issues. In recent years, regional and global have networks emerged where they both promote sustainability and/or practice it in their institutions. These networks often consist of members from a specific region, working together to drive institutional change towards sustainability (Kohl et al., 2022).

Thus, university alliances can play a key role in promoting and implementing sustainable policies and practices not only at a national level, but also at an international level. It is essential for the promotion of environmental sustainability education, as well as for advancing research, innovation, and community outreach. By incorporating the SDGs into their curricula, research priorities, and operational practices, institutions can foster a sense of responsibility and commitment to sustainability among students, preparing them to be future leaders who tackle global challenges (Filho et al., 2024).

In this context, the ENLIGHT Alliance represents a comprehensive and ambitious project to transform European higher education, contributing towards building a better future for society while supporting the UN's Sustainable Development Agenda.

The ENLIGHT Alliance incorporates the SDGs in their Living Labs. Living Labs comprise collaborative, real-world problem-solving courses where students, researchers and the local community work together to co-create solutions for urban and regional challenges. Living Labs focus on integrating academic knowledge with practical applications with the goal of working towards relevant solutions and outcomes. As this is an interdisciplinary approach it can address the entire scope of sustainability challenges. Each Living Lab in the alliance is tailored to the specific needs of the city or region, consequently their success depends on strong partnerships with local governments, NGOs, and businesses. These stakeholders are actively involved in the projects, providing insights, resources, and real-world challenges for students, where faculty and students work together. In addition to these practical outcomes, the Living Labs also operate as educational platforms providing students with hands-on experience and equipping them with the skills and knowledge needed to become future leaders in their field. The collaborative, real-world nature of the projects ensures that students not only learn about sustainability in theory, but are also actively contributing to it in practice.

Challenges and Opportunities

There are potentially numerous challenges that can slow down the progress, productivity, and collaboration of university alliances. These include differences in institutional priorities, differences in academic approaches, and geographical distances. All these factors can create barriers (Ellis et al., 2021). Without a clear strategy to address these factors, the efforts to work together can become difficult and inefficient. To understand these difficulties and to come up with strategies to overcome them is essential for creating a collaborative environment. The challenges to start a productive and cohesive collaborations are:

- Diverse institutional cultures and priorities among member universities may be a challenge to alignment and coordination (Devlin et al., 2006).

- Differences in funding mechanisms and administrative processes may be challenging to incorporate joint projects and initiatives (Fan et al., 2019).

- Differences in academic structures may hinder collaboration (Dooley & Kirk, 2007).

- Geographic distances which can make it difficult to work together in real time (Mahdad et al., 2020).

- Communication challenges due to language barriers or lack of clear communication can lead to misunderstanding and hinder collaboration (El-Jardali et al., 2018).

To address multiple institutional cultures, it is important to develop a clear and shared vision for collaboration. It also has to take the priorities of individual HEIs into consideration. This common vision and set of goals should motivate everyone to work towards a common objective. Establishing standardized processes for joint projects (in terms of budgeting, reporting, and decision-making), using clear and easy-to-understand language will make it easier for people to work together. Kit will also minimize misunderstandings caused by different ways of doing things (Engebø et al., 2020).

To bridge differences in funding mechanisms and administrative processes, it's crucial to clearly define the roles and responsibilities of each institution. This helps to prevent confusion and it ensures that all parties understand their respective contributions (Nsanzumuhire & Groot, 2020). Additionally, organizing joint training sessions or workshops can create a shared understanding of the academic approaches and methodologies that are used across different institutions (Ahmed et al., 2022). Adopting a phased approach to collaboration, which would beginn with smaller projects to build trust and mutual understanding before advancing to larger, more complex initiatives, can also be beneficial (Ellis et al., 2021).

To overcome geographical distance, the use of asynchronous collaboration tools, such as project management platforms, document sharing services, and discussion forums, allows team members to contribute and share information on their own schedules (Mahdad et al., 2020). Scheduling regular virtual meetings, taking the time zone differences into consideration, is essential for maintaining momentum, discussing progress, and addressing any emerging issues. Rotating leadership roles among institutions fosters a sense of shared ownership and responsibility for the collaboration's success. Additionally, maintaining open communication channels and a willingness to be flexible with processes can lead to creative solutions for overcoming administrative challenges (O'Dwyer et al., 2023).

Lessons learned from the European university collaborations highlight the importance of flexibility and adaptability, as accommodating different institutional contexts and priorities is crucial. Building strong relationships and networks among alliance members is vital for sustaining long-term collaboration and achieving meaningful impact. Opportunities for 'scaling up' impact include expanding membership to include universities from diverse regions and disciplines, fostering a global and interdisciplinary approach to sustainable development. Strengthening partnerships with governments, NGOs, and industry stakeholders can also leverage additional resources, expertise, and networks for greater impact. Investing in capacity building and leadership development initiatives empowers member institutions to take on larger roles and responsibilities within the alliance. Additionally, exploring innovative funding mechanisms, such as public-

private partnerships and philanthropic support, is essential for sustaining and expanding university alliance's activities and initiatives which can address global challenges and shape the future.

Limitations

A limitation of this paper is that it does not include empirical research. Consequently, it is recommended that any future focus on the topics featured – university alliances and the embedding of SDGs in business school curricula – should aim to rectify this situation. That said, the authors are well placed to provide insights into the challenges, lessons learned and opportunities as outlined here. The literature and practitioners both emphasise the need to involve universities in the promotion of the SDGs, however, the lack of practical solutions regarding SDG activity has also been emphasised (Podgórska & Zdonek, 2024) - another way in which this paper contributes to the topic of sustainability.

Conclusion

The deepening of university, government and industry relationships is advocated for both cases outlined here – the university alliance and the embedding of the SDGs in business schools. Sometimes referred to as Triple Helix (3H) approach (see Leydesdorff & Etzkowitz, 1998 this requires collaboration through institutional, structured and strategic approaches and may also mean that each sometimes 'takes the role of the other' by adopting new, non-traditional roles; for example, companies become educators (i.e. by training students) and the university becomes more entrepreneurial (van Winden & de Carvalho, 2015, p. 10). This will require the building of longer-term relationships, sharing of knowledge, ideas and strategies towards a more sustainable future for all.

The 17 SDGs adopted by all the United Nations member states represent a blueprint to help all parts of society navigate global social, economic, and environmental challenges (United Nations [UN], 2015). Higher education institutions have an important role as drivers of societal change. Therefore they should be actively involved in the Sustainable Development Goals. This paper has outlined how universities can assist the journey to addressing at least some of the challenges. As the Times Higher Education's (THE) Editor stated when referring to the THE's impact rankings "far from being ivory towers, universities of every size and type are at the forefront of addressing the most pressing problems facing the world, with the great advantage that they are embedded in communities pretty much everywhere" (WEF webpage, 2023). That said, as Chankseliani and McCowan (2021) point out the SDGs are not a package that can be applied to HEI as sustainability requires documentation so as to understand the impacts and effects on different areas within universities.

As highlighted in this paper, university alliances like ENLIGHT play a crucial role in sustainable development through their collaborative frameworks, which integrate academic research, education, and community

engagement. The inclusion of ENLIGHT adds significant value by fostering cross-institutional partnerships that directly address global challenges through an interdisciplinary approach. Through its focus on flagship areas, ENLIGHT not only advances the SDGs but also strengthens the role of Higher Education Institutions (HEIs) in shaping a sustainable and equitable future.

Universities, and business schools in particular, are key agents of change. They also advocate for policies that address climate change, sustainability, and social responsibility. Furthermore, business schools are interdisciplinary and they combine insights from economics, management, and environmental science which lead to creating holistic solutions to global challenges. By fostering a culture of responsibility and innovation, business schools help drive business practices that prioritize sustainability and ethical considerations, ultimately contributing to a more sustainable and equitable world.

Finally, the SDG targets were already behind schedule for the "Decade of Action" (until 2030) before the COVID-19 pandemic commenced. prompting suggestions that this initiative should be relaunched as a "Decade of Recovery and Action" (Shulla et al., 2021) where universities can continue to play an active role in the future. For this to occur it is important to emphasise strong relationships between governments, industry and HEIs to ensure integration and collaboration between what the community and industry needs and universities are providing. With regard to universities, an approach to governance that involves responsible leadership requires inclusivity among all stakeholders where they take responsibility for their actions. As Filho et al (2023) argue "HEIs governance systems should be geared to promote sustainability across the board, with the active participation of senior management on the one hand and academic and non-academic staff and students on the other". Filho et al (2023) stress that without such commitment, there will be no progress.

References

Ahmed, F. (2022). Strengthening the bridge between academic and the industry through the academia-industry collaboration plan design model. *Frontiers in Psychology*, *13*, 875940. https://doi.org/10.3389/fpsyg.2022.875940

Angelaki, M. E., Bersimis, F., Karvounidis, T., & Douligeris, C. (2024). Towards more sustainable higher education institutions: Implementing the sustainable development goals and embedding sustainability into the information and computer technology curricula. *Education and Information Technologies*, *29*(4), 5079–5113. https://doi.org/10.1007/s10639-023-12025-8

Ashida, A. (2023). The Role of Higher Education in Achieving the Sustainable Development Goals. In S. Urata, K. Kuroda, & Y. Tonegawa (Eds.), *Sustainable Development Disciplines for Humanity*. Springer. https://doi.org/10.1007/978-981-19-4859-6_5

Biancardi, A., Colasante, A., … D'Adamo, I. (2023). Strategies for developing sustainable communities in higher education institutions. *Sci Rep*, *13*, 20596. https://doi.org/10.1038/s41598-023-48021-8

Bodley-Scott, T., & Oymak, E. (2022). *University-Industry Partnerships for Positive Change: Transformational Strategic Alliances Towards UN SDGs*. Bristol University Press.

Business School website. (2024). https://www.newcastle.edu.au/school/newcastle-business-school/accreditation-and-affiliation/prme

Chankseliani, M., & McCowan, T. (2021). Higher education and sustainable development goals. *Higher Education*, *81*(1), 1–8. https://doi.org/10.1007/s10734-020-00652-w

Cuesta-Claros, A. (2022). Understanding the roles of universities for sustainable development transformations: A framing analysis of university models. *Sustainable Development*, *30*(4), 525–538. https://doi.org/10.1002/sd.2247

del Mar Martínez-Bravo, M., de las Mercedes Capobianco-Uriarte, M., Terán-Yépez, E., Marín-Carrillo, G. M., & del Pilar Casado-Belmonte, M. (2024). Integrating sustainability into business and management studies in higher education. *The International Journal of Management Education*, *22*(1), 100939. https://doi.org/10.1016/j.ijme.2024.100939

Devlin, F. A. (2006). Getting beyond institutional cultures: When rivals collaborate. *Journal of Library Administration*, *45*(1–2), 149–168. https://doi.org/10.1300/J111v45n01_08

Dooley, L., & Kirk, D. (2007). University-industry collaboration: Grafting the entrepreneurial paradigm onto academic structures. *European Journal of Innovation Management*, *10*(3), 316–332. https://doi.org/10.1108/14601060710776734

Eden, C., & Ackermann, F. (2018). Theory into practice, practice to theory: Action research in method development. *European Journal of Operational Research*, *271*(3), 1145–1155. https://doi.org/10.1016/j.ejor.2018.05.061

El-Jardali, F., Ataya, N., & Fadlallah, R. (2018). Changing roles of universities in the era of SDGs: rising up to the global challenge through institutionalising partnerships with governments and communities. *Health Research Policy and Systems*, *16*, 1–5. https://doi.org/10.1186/s12961-018-0318-9

Ellis, R. A., Bliuc, A.-M., & Han, F. (2021). Challenges in assessing the nature of effective collaboration in blended university courses. *Australasian Journal of Educational Technology*, *37*(1), 1–14. https://doi.org/10.14742/ajet.5576

Engebø, A. (2020). A collaborative project delivery method for design of a high-performance building. *International Journal of Managing Projects in Business*, *13*(6), 1141–1165. https://doi.org/10.1108/IJMPB-01-2020-0014

Escudero, M. (2011). PRME and Four Theses on the Future of Management Education. In M. Morsing & A. S. Rovira (Eds.), *Business Schools and their Contribution to Society* (pp. 201–212). Sage Publications. https://doi.org/10.4135/9781446250822

Etzkowitz, H., & Leydesdorff, L. (1998). A Triple Helix of University—Industry—Government Relations: Introduction. *Industry and Higher Education*, *12*(4), 197–201. https://doi.org/10.1177/095042229801200402

Fan, H.-L. (2019). Do funding sources matter? The impact of university-industry collaboration funding sources on innovation performance of universities. *Technology Analysis & Strategic Management*, *31*(11), 1368–1380. https://doi.org/10.1080/09537325.2019.1614158

Filho, W. L. (2024). Fostering students' participation in the implementation of the sustainable development goals at higher education institutions. *Discover Sustainability*, *5*(1), 22. https://doi.org/10.1007/s43621-024-00204-7

Filho, W. L., Salvia, A. L., & Eustachio, J. H. P. P. (2023). An overview of the engagement of higher education institutions in the implementation of the UN Sustainable Development Goals. *Journal of Cleaner Production*, *386*, 135694.

Godemann, J., Herzig, C., Moon, J., & Powell, A. (2011). *Integrating sustainability into business schools–analysis of 100 UN PRME sharing information on progress (SIP) reports* (Nos. 58–2011). International Centre for Corporate Social Responsibility. https://www.uni-giessen.de/de/fbz/fb09/institute/VKE/kommunikation/forschung/ICCSRSerie_Integrating_Sustainability_into_Business.pdf

Graham, S. (2019). Sustainability, Management Education, and Professions: A Practitioner Perspective. In *Incorporating Sustainability in Management Education: An Interdisciplinary Approach* (pp. 195–214). https://doi.org/10.1007/978-3-319-98125-3_9

Kestin, T., van den Belt, M., Denby, L., Ross, K., Thwaites, J., & Hawkes, M. (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

Kioupi, V., & Voulvoulis, N. (2020). Sustainable Development Goals (SDGs): Assessing the Contribution of Higher Education Programmes. *Sustainability*, *12*(17), 6701. https://doi.org/10.3390/su12176701

Kirkpatrick, D. L. (1983). Four steps to measuring training effectiveness. *Personnel Administrator*, *28*(11), 19–25.

Kohl, K. (2022). A whole-institution approach towards sustainability: a crucial aspect of higher education's individual and collective engagement with the SDGs and beyond. *International Journal of Sustainability in Higher Education*, *23*(2), 218–236. https://doi.org/10.1108/IJSHE-10-2020-0398

Leydesdorff, L., & Etzkowitz, H. (1998). Triple Helix of innovation: introduction. *Science and Public Policy*, *25*(6), 358–364. https://doi.org/10.1093/spp/25.6.358

Lozano, R. (2014). Creativity and organizational learning as means to foster sustainability. *Sustainable Development*, *22*(3), 205–216. https://doi.org/10.1002/sd.540

Lozano, R., Bautista-Puig, N., & Barreiro-Gen, M. (2022). Developing a sustainability competences paradigm in Higher Education or a White Elephant? *Sustainable Development*, *30*(5), 870–883. https://doi.org/10.1002/sd.2286

Lozano, R., Merrill, M. Y., Sammalisto, K., Ceulemans, K., & Lozano, F. J. (2017). Connecting competences and pedagogical approaches for sustainable development in higher education: A literature review and framework proposal. *Sustainability*, *9*(10), 1889. https://doi.org/10.3390/su9101889

Mahdad, M. (2020). Joint university-industry laboratories through the lens of proximity dimensions: moving beyond geographical proximity. *International Journal of Innovation Science*, *12*(4), 433–456. https://doi.org/10.1108/IJIS-10-2019-0096

Martín Bautista-Cerro, B., Castillo-Rodríguez, A., & García-Navarro, J. (2023). Contribution of European University Alliances to Education for Sustainable Development and to the SDGs: A Case Study on the Circular EELISA Community. *Sustainability*, *15*(23), 1–14. https://doi.org/10.3390/su152316181

Mori Junior, R. (2019). Implementing the UN SDGs in universities: challenges, opportunities, and lessons learned. *Sustainability: The Journal of Record*, *12*(2), 129–133. https://doi.org/10.1089/sus.2019.0004

Mormina, M. (2019). Science, technology and innovation as social goods for development: rethinking research capacity building from sen's capabilities approach. *Science and Engineering Ethics*, *25*(3), 671–692. https://doi.org/10.1007/s11948-018-0037-1

Nicolo, G., Zampone, G., De Iorio, S., & Sannino, G. (2024). Does SDG disclosure reflect corporate underlying sustainability performance? Evidence from UN Global Compact participants. *Journal of International Financial Management & Accounting*, *35*(1), 214–260. https://doi.org/10.1111/jifm.12194

Nsanzumuhire, S. U., & Groot, W. (2020). Context perspective on University-Industry Collaboration processes: A systematic review of literature. *Journal of Cleaner Production*, *258*, 120861. https://doi.org/10.1016/j.jclepro.2020.120861

O'Dwyer, M. (2023). Establishing successful university–industry collaborations: barriers and enablers deconstructed. *The Journal of Technology Transfer*, *48*(3), 900–931. https://doi.org/10.1007/s10961-022-09932-2

Panneerselvam, S., & Balaraman, K. (2022). Employee experience: the new employee value proposition. *Strategic HR Review*, *21*(6), 201–207. https://doi.org/10.1108/SHR-08-2022-0047

Podgórska, M., & Zdonek, I. (2024). Interdisciplinary collaboration in higher education towards sustainable development. *Sustainable Development*, *32*(3), 2085–2103. https://doi.org/10.1002/sd.2765

PRME. (2024). *Introducing the Refreshed Principles of Responsible Management Education*. https://www.unprme.org/news/introducing-the-refreshed-principles-of-responsible-management-education/

Roos, N. (2023). Sustainability governance toward an organizational sustainability culture at German higher education institutions. *International Journal of Sustainability in Higher Education*, *24*(3), 553–583. https://doi.org/10.1108/IJSHE-09-2021-0396

Shulla, K., Voigt, B. F., Cibian, S., Scandone, G., Martinez, E., Nelkovski, F., & Salehi, P. (2021). Effects of COVID-19 on the sustainable development goals (SDGs). *Discover Sustainability*, *2*, 1–19. https://doi.org/10.1007/s43621-021-00026-x

Steele, W., & Rickards, L. (2021). The role of the university in society. In *The Sustainable Development Goals in Higher Education* (pp. 67–106). Springer. https://doi.org/10.1007/978-3-030-73575-3_3

United Nations. (2015). *The 2030 Agenda for sustainable development*. https://sdgs.un.org/goals

van Winden, W., & de Carvalho, L. (2015). *New urban economies: How can cities foster economic development and develop 'new urban economies'. (Urbact II capitalisation)*. URBACT. https://pure.hva.nl/ws/portalfiles/portal/5741277/01_newurb_web.pdf

World Economic Forum – WEF. (2023). *These are the world's top universities driving the United Nations Sustainable Development Goals*. https://www.weforum.org/agenda/2023/06/universities-driving-sustainable-development-goals-sdg/