The Integration of Sustainability in Business Education

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1 __Introduction__

The challenges facing our societies are numerous. Although climate change, which is of the nine planetary boundaries, is a major threat, five other planetary boundaries have also been exceeded: biodiversity loss, land conversion, freshwater withdrawals, nitrogen and phosphorus loading, and chemical pollution (Persson et al., 2022; Steffen et al., 2015; Wang-Erlandsson et al., 2022). Oceans are also under threat due to acidification driven by increased atmospheric CO_2 concentrations, and there is a risk of exceeding the ocean acidification planetary boundary in the coming decades. Air pollution, which is yet another planetary boundary, is disturbing weather patterns in many locations (Menon et al., 2002; NASA, 2010). Besides environmental issues, the Sustainable Development Goals or SDGs (United Nations, n.d.) and the social foundation of Kate Raworth's doughnut model (Raworth, 2017) show that our societies also face numerous other challenges, including poverty; inequalities in revenue, health, and education, among others; violations of human and children's rights; slavery; and armed conflicts and other forms of violence.

In this context, there have been numerous calls to reform Economics' and Management's education and integrate sustainability into business schools' courses and programs (see, for example, Gersel & Johnsen, 2020; Setó-Pamies & Papaoikonomou, 2016; Shrivastava, 2010; Starik et al., 2010). However, the resulting process of integration has started relatively late in time. Indeed, while concern for the environmental impacts of human activities already existed before the 1970s, natural environment topics only began appearing in a few business textbooks around 1990 (Starik et al., 2010). Similarly, while the social impacts of the economic system have been discussed for a long time, the incorporation of social issues as sustainability dimensions to be considered along with environmental ones is also quite recent.

Progress in the legitimacy of sustainability topics in management research has been reflected in the last two decades' quick growth of the Social Issues in Management (SIM) and Organizations and the Natural Environment (ONE) divisions of the Academy of Management (AOM). Importantly, the development of these two divisions has positively contributed to the emergence of sustainability-based curricula in business schools around the world (Stead & Stead, 2010). However, both among business schools and other higher education establishments, there is a substantial variability in terms of integration of sustainability into curricula between universities and other higher education establishments (Times Higher

Education, 2023): While some such institutions are sustainability leaders, such as Western Sydney University or Arizona State University, others are lagging behind.

Given the present situation, students need to be equipped to face the present and future sustainability-related challenges. As Zamzam Ibrahim and Amélie Deloche, two student-activists, pointed out in 2020 at the Higher Education Sustainability Initiative's special event on the future of education, most decision-makers come through university, and future ones will only be able to meet these challenges if they have the necessary sustainability knowledge and competencies (The SDG Academy, 2022). This may be even more the case for students in Business Management and Public Administration higher-education programs, whose professional activities are likely to include the management of projects and organizations. This is why, in terms of sustainability education, "the role of universities is crucial, as it may shape management students' attitudes and provide them with the necessary knowledge, skills and critical analysis to make decisions as consumers and future professionals" (Setó-Pamies & Papaoikonomou, 2016, p. 523).

To equip students with the necessary sustainability knowledge and competencies, the first step is to identify these so that universities and business schools can adapt their courses and programs to introduce them into the learning outcomes. This is the first objective of this report, which is based on a literature review. Second, once what sustainability learning outcomes should include has been identified, we will consider the different options or choices in terms of programs, courses, and pedagogical approaches that allow developing these learning outcomes. In this report, we rely on existing literature to identify these choices, as well as the advantages and disadvantages of each of them. It should be noted that, given the heterogeneity of existing business schools' institutional and cultural contexts, an option that is adapted to one specific business school may not be the best choice for another one.

Third, there are individual- and organizational-level barriers to the integration of sustainability in courses and programs. In this report, we will look into these barriers, because failure to understand them is likely to prevent sustainability champions and business schools' administrations being successful in their endeavors to integrate sustainability into education. Finally, the insights derived from this literature review will inform a set of recommendations for business schools.

2   Sustainability Learning Outcomes: What Students Need to Face Sustainability Challenges

In order to identify the sustainability learning outcomes, and as a starting point, we will rely on what Hermes and Rimanoczy (2018) call the "sustainability mindset," which they define as "a way of thinking and being that results from a broad understanding of the ecosystem's manifestations, from social sensitivity, as well as an introspective focus on one's personal values and higher self, and finds its expression in actions for the greater good of the whole" (p. 461). Their "sustainability mindset" can therefore be understood as what students need to acquire to understand sustainability challenges and to be able to take action to address them. These authors develop a four-dimensional typology, which includes, in their terminology, (1) an ecological worldview, (2) a systems perspective, (3) emotional intelligence and self-awareness, and (4) spiritual intelligence.

These authors define the ecological worldview as "ecoliteracy-related knowledge" (p. 461), which includes providing students with "information about the state of the planet and our social/environmental challenges" (p. 462). Given that it includes both environmental and social challenges, a more appropriate term would probably be eco-socio-literacy knowledge. This is consistent with Kate Raworth's doughnut framework, where the ecological ceiling has nine environmental dimensions, which correspond to the nine planetary boundaries (Steffen et al., 2015; Stockholm Resilience Centre, 2023), and the twelve social dimensions of the doughnut's social foundation (Raworth, 2017).

Let's now turn to Hermes and Rimanoczy (2018)'s second dimension, called the "systems perspective." It is closely related to the systems thinking competency defined in the literature on the key competencies for sustainability[1] (UNESCO, 2017a; Wiek et al., 2016; Wiek & Redman, 2022). However, it also includes "a sense of interconnectedness" with the world and stakeholder integration (Hermes & Rimanoczy, 2018, p. 463). Their third dimension, called "emotional intelligence and self-awareness," is about acknowledging one's own emotions, and about reflecting on one's own actions and impact, with compassion. Therefore, this dimension is related to some sustainability competencies described by the literature, such as the intra-

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[1] The systems thinking competency has been defined as follows: "Ability to apply modeling and complex analytical approaches: 1) to analyze complex systems and sustainability problems across different domains (environmental, social, economic) and across different scales (local to global), including cascading effects, inertia, feedback loops, and other system dynamics; 2) to analyze the impacts of sustainability action plans (strategies) and interventions (how they change systems and problems)" (Redman & Wiek, 2021, p. 6).

personal competency (Wiek & Redman, 2022) and the self-awareness competency (UNESCO, 2017a). This third dimension also acknowledges the importance of emotions for the sustainability mindset. Finally, the fourth dimension is "spiritual intelligence." It allows "exploring ethical and moral implications, including their personal purpose and desire to shape a better world" (Hermes & Rimanoczy, 2018, p. 462), and it is developed, for example, through contemplative practices. This fourth dimension is also related to the normative and self-awareness competencies. First, the normative competency is useful for considering the ethical and moral implications of one's activities, because it allows the person "to specify, compare, apply, reconcile and negotiate sustainability values, principles, goals and targets, informed by concepts of justice, equity, responsibility, etc., in various processes, including visioning, assessment and evaluation" (Wiek et al., 2016, p. 246). Second, this fourth dimension is about personal purpose, and the self-awareness competency is described as "the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires." (UNESCO, 2017, p. 10).

Therefore, while Hermes and Rimanoczy (2018)'s four dimensions could benefit from a conceptual clarification of the learning outcomes, they show three important aspects about the learning outcomes. First, a key element of sustainability education is eco-socio-literacy, which is related to knowledge. It should also be noted that, in terms of knowledge, a specificity of business schools is that some theories, concepts, and frameworks currently taught in certain Economics and Management studies promote worldviews and behaviors that are associated with unsustainable practices, as we shall see in Section 2.1. Second, to address sustainability problems, students need to develop a specific set of key competencies. Third, because a "sustainability mindset" requires being able to acknowledge one's own emotions, and emotions are a powerful driver of action (Martiskainen et al., 2020; Plutchik & Kellerman, 1980), sustainability education cannot accomplish its action-oriented and transformative goals without integrating emotions into the learning outcomes. In what follows, we will consider these three aspects of sustainability education's learning outcomes.

2.1 <u>Eco-Socio-Literacy and Economics- and Management-Specific Knowledge</u>

Without a basic knowledge of the environmental and social dimensions of sustainability, it is not possible to adequately analyze and manage sustainability problems. This is why sustainability learning outcomes should include the ability to identify and describe the

environmental and social dimensions involved in a given problem, using frameworks such as Kate Raworth's doughnut or the SDGs mentioned above. This requires the acquisition of a sufficient eco-socio-literacy, that is, of knowledge about the environmental and social dimensions of sustainability.

While the SDGs also include economic aspects in the description of the goals, such as decent work, sustainable production and consumption practices, and economic growth, the doughnut framework does not. This is because, in the doughnut model, Economics is conceived as a means to reach the social foundation without exceeding the ecological ceiling. And since the economic policies that should be implemented to reach this objective are highly dependent on the country's, region's, or city's context, it is not possible to define economic goals that fit every situation. In other words, economic and social policies, as well as regulations and laws, are conceived as "tools" that can be mobilized to reach the double objective of reaching the social foundation for all without exceeding the ecological ceiling. This is why eco-socio-literacy's knowledge should probably also include basic and relevant concepts and theories from the following disciplines: Economics, Management, Public Policy, and Law. Finally, and considering the key role of norms, values, beliefs, attitudes, and behaviors in the adoption of sustainability-oriented actions (Ives et al., 2020; Pellaud, 2011), it would probably also make sense to include basic and relevant concepts and theories from Psychology and Sociology in the knowledge-based learning outcomes.

However, in terms of knowledge-related learning outcomes, there is an important aspect that is specific to business schools. Indeed, Economics and Management students are exposed to theories, concepts, and frameworks that shape their worldviews, values, and attitudes. For example, business students are exposed to discipline-based curricula that describe firms as profit-seeking organizations that operate in a market system, which can lead them to conclude that successful business decisions can only be driven by a profit-maximizing strategic approach (Bagley et al., 2020). The self-interested conception of human and organizational agency is widespread in contemporary management thought, and could only be dethroned if a greater variety of theories were taught. At the very least, in the classroom, the discussion should move from how can profits be maximized to whether one should maximize profits and prioritize shareholder gains in the first place (Gersel & Johnsen, 2020).

Another example concerns the models of human behavior students are exposed to. Indeed, an empirical study showed that students with an economic specialization were more likely to

hold the belief that honesty was an effortful behavior and, as a result, were more willing to engage in unethical behavior (Ong et al., 2023). Moreover, an empirical study identified a causal link between training in Economics and a lower likelihood of behave cooperatively, which was attributed to the emphasis on the self-interest model of human behavior favored in the Economics training (Frank et al., 1993). It should be noted that, in that study, when players of the prisoners' dilemma were allowed to promise to cooperate, economists were almost as likely to cooperate as non-economists, which suggests that the economists' behavior is essentially driven by the beliefs of how others are going to behave. In any case, human behavior is complex and cannot be captured by one single model such as the *Homo oeconomicus*. This is why, in the social sciences' literatures, there are other models, such as the *Homo sociologicus* (Boudon, 2007; Elster, 1989) and *Homo politicus* (Faber et al., 2002) and a diversity of theories and frameworks that aim at explaining human behavior, including agency-based and structural approaches. Exposure to different theories, frameworks, and models of human behavior used in social and other human sciences (Sociology, Economics, Management, Political Science, Psychology, Anthropology, etc.), combined with a critical approach to every one of these models, could allow students to understand the explanatory potential and the limits of each of these models.

The literature has also described the metaphors that are used in Management education as ideological devices that can shape the students' worldviews, values, and beliefs (Audebrand, 2010). One example is the war metaphor, which is pervasive in Management theory, research, and education. Indeed, "virtually every strategic management textbook uses this metaphor, consciously or otherwise" (Audebrand, 2010, p. 416). According to this author, the issue with the war metaphor is that it creates a bias because it presents one form of social interaction, which is highly adversarial, as the most prevalent one in society and, as a result, it can contribute to the depersonalization of actions and be easily used to deny responsibility for highly destructive actions against others. However, there are other metaphors that promote sustainability-oriented behavior. Two examples are the "Earth is our home" and the gardening metaphors, which promote a kind and caring attitude towards our planet (Audebrand, 2010, pp. 420-421). Raworth (2017, p. 33) also discusses the "widely used metaphor of progress being a movement forwards and upwards" and its good fit with "the idea of ever-growing [economic] output", which is consistent with Audebrand's argument that metaphors can have a substantial impact on our worldviews.

It should be noted that metaphors also play a key role in the paradigms that reflect the relationship between humans and nature. While the anthropocentric and the technocentric paradigms share a vision of humankind as separate from, and superior, to nature, where the Earth is inert, passive, and can be legitimately exploited through technology and other means, the ecocentric paradigm considers the Earth as a web of life, active, alive, sacred, sensitive to human action, and humans as only one part connected to everything else. And while a metaphor that is consistent with the anthropocentric and technocentric paradigms is the Earth as a "vast machine", the metaphor that is consistent with the ecocentric paradigm is the Earth as a "mother" or "a web of life" (Gladwin et al., 1995, p. 883).

2.2   <u>Key Competencies for Sustainability</u>

Key competencies for sustainability have been described as "a critical reference point for developing the ambitious knowledge and skill profile of students expected to be future 'problem solvers,' 'change agents,' and 'transition managers' " (Wiek et al., 2011, p. 204). They are essential for the analysis of sustainability problems and for the design and implementation of adequate strategies to address them. Competencies have been defined as "dispositions to self-organisation, comprising different psycho-social components, existing in a context-overlapping manner, and realizing themselves context-specifically. They may be acquired gradually in different stages, and they are reflected in successful actions" (Barth et al., 2007, p. 417). Knowledge and skills are important components of competencies. For example, the "systems thinking" competency requires knowledge about systems theory, and the ability to identify the different parts of a system and the relationships between these parts, among other things.

There is a diversity of typologies that list these key competencies (see, for example: Barth et al., 2007; Rieckmann, 2012; UNESCO, 2017; Wiek et al., 2011) and, for some of them, the definition lacks conceptual clarity. However, according to Redman and Wiek (2021)'s review of the literature, there are five competencies that frequently appear in typologies and that can be considered as "established". These are the systems thinking, futures thinking (or anticipatory), values thinking (or normative), strategies thinking (or action-oriented), and inter-personal (or collaboration) competencies. These five competencies are also included in UNESCO (2017)'s typology. The latter also includes three other key competencies for sustainability. First, the critical thinking competency, which has been defined as the "the ability to question norms, practices and opinions; to reflect on one's own values, perceptions and actions; and to take a position in the sustainability discourse" (UNESCO, 2017a, p. 10).

However, while critical thinking is necessary to analyze and address sustainability problems, Redman and Wiek (2021) argue that it is a general competency rather than specific to sustainability, which is why they do not include it in their typology. Second, the self-awareness competency, which is "the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires" (UNESCO, 2017, p. 10). This is close to what has been called the intra-personal competency, which is the "ability to avoid personal health challenges and burnout in advancing sustainability transformations through resilience-oriented self-care (awareness and self-regulation)" (Redman & Wiek, 2021). However, according to these two authors, there is not a consensus on whether this is really a competency or an underlying disposition. Third, the integrated problem-solving competency, which is the "overarching ability to apply different problem-solving frameworks to complex sustainability problems" (UNESCO, 2017a, p. 10), and also appears in Wiek et al. (2016)'s typology with the same name, and in Redman and Wiek (2021)'s under the term "integration competency".

An important question is the operationalization of the key competencies for sustainability, which requires translating them into learning outcomes and identifying appropriate teaching methods that can be applied in the classroom. There has been an attempt of operationalization of the five key competencies that are the object of consensus (please see the previous paragraph), as well as the integration competency (Wiek et al., 2016), but additional work is needed to adequately identify and characterize all the key competencies for sustainability, to translate them into learning outcomes, and to identify the teaching methods that can allow students to achieve these outcomes.

Indeed, while the six competencies that have been operationalized are important, the students' "inner worlds" (Ives et al., 2020), which are made up of values, beliefs, attitudes, identities, and emotions, are essential drivers of engagement and change, and yet they are underrepresented in these six competencies. A behavior will only be adopted and become part of our daily routine if it corresponds to our values and beliefs, which means that education cannot ignore the importance of a reflexive approach to clarify these (Pellaud, 2011). Therefore, the identification and characterization of competencies focused on values, beliefs, attitudes, identities, and emotions seems necessary. Moreover, the literature in Management has identified the importance of being able to navigate trade-offs when considering conflicting objectives of sustainability problems (Hahn et al., 2010) and the importance of students learning to exercise good judgment when assessing trade-offs (Bagley et al., 2020).

2.3   The Role of Emotions in Sustainability Education

Since, as we have just seen, individuals' inner worlds are at the core of their behavior and engagement towards sustainability, they have enormous societal transformative power (Ives et al., 2020). Of particular importance are emotions, which are a powerful driver of action (Martiskainen et al., 2020; Plutchik & Kellerman, 1980). Indeed, "understanding alone is not sufficient; managers and students need holistic, physical and emotional engagement with sustainability issues" (Shrivastava, 2010, p. 443).

Moreover, emotions can have a substantial impact on students' well-being, as the literature on ecoanxiety shows (Macy & Brown, 2014; Pihkala, 2020). Indeed, an awareness of the ecological crisis and its effect on the Earth generates pain and suffering, which can be accompanied by ecoanxiety, as well as a pessimistic, even catastrophic, vision of the present and future. Ecoanxiety has been defined as "a chronic fear of environmental doom" (Clayton et al., 2017, p. 68) and, as such, is associated with fear. However, there are other emotions that can result from being aware of the ecological crisis, such as sadness, anger, or guilt (Hickman et al., 2021). However, ecoanxiety and the uncomfortable emotions associated with the ecological crisis and the current state of the Earth should not be pathologized, because they are a normal response to the state of the Earth, as well as the result of an attitude of benevolence, compassion, and love towards other humans and non-humans (Pihkala, 2020). In what follows, we are going to consider the role of these emotions on the individual's engagement in terms of sustainability-oriented action.

First, ecoanxiety and fear of ecological doom can lead to denial of the existence of the ecological crisis, or to other types of avoidance strategies, which prevent the subject from being able to take action (Koller, 2021; Pihkala, 2020). At the same time, the subject may be tempted to avoid his/her suffering by repressing and denying his or her connection with nature. When a person severs his/her link with nature, the latter becomes an "object to be broken down, described, explained, a problem to be solved" (Cottereau, 2005, p. 114). This view of nature is consistent with the anthropocentric and the technocentric paradigms, which promote unsustainable behavior. Indeed, as seen in Section 2.1, the anthropocentric and technocentric paradigms assumes that the earth is passive, humans are superior to non-human beings, and that, as a result, it is legitimate to exploit natural resources. Therefore, students' ecoanxiety and fear could push them into denial, and reinforce existing anthropocentric and technocentric views, which would eventually shape their practices as citizens and professionals (Allen et al.,

2019). According to these authors, organization theory in Management studies is pervaded by the technocentric discourse. Therefore, if Economics and Management education ignores the role of emotions on students' values, beliefs, and worldviews, it could contribute to the perpetuation of the high prevalence of the anthropocentric and technocentric paradigms.

At the same time, emotions are powerful drivers of action. For example, Martiskainen et al. (2020)'s empirical study identified the key role of emotions such as anger, frustration, and hope in the engagement of participants in the September 2019 climate strike and, more generally, in environmental activism and the adoption of more environmentally friendly lifestyles. They showed that engaging in collective actions such as protests, as well as adopting more environmentally friendly behaviors, bring people who suffer from uncomfortable emotions associated with the ecological crisis hope and comfort, because these people feel they are doing something about it.

Therefore, the adequate management of emotions in sustainability education has three advantages. First, it prevents students from adopting denial strategies to uncomfortable emotions, which can promote unsustainable behavior and disengagement. Second, it can lead students to different forms of personal and professional engagement towards sustainability, such as reducing one's energy and water consumption or promoting sustainability practices within an organization. Third, the management of uncomfortable emotions by granting them legitimacy in the classroom and discussing them can contribute to the well-being of students who are exposed to the realities of the current ecological and social crises. The integration of emotions into higher education could be achieved not only by granting them legitimacy in the classroom and allowing their expression and discussion, but also by the "development of spaces and methods that can support self-awareness and reflection" (Woiwode et al., 2021, p. 853). This would go hand in hand with the integration of the emotions associated with the ecological and social crises, as well as the student's relationship with nature, into learning outcomes.

3 Implementation of Sustainability in Business Schools' Education: Options and Choices

The integration of sustainability into business schools' education has been considered at three different levels: institutional, curricular, and pedagogical (Setó-Pamies & Papaoikonomou, 2016). The institutional level focuses on how the administration and organizational culture and structure support the two other levels. The curricular level is concerned with the integration of sustainability into the curriculum, which requires the support of the two other levels. Finally, the instrumental level focuses on pedagogies and tools that are adapted to the specific characteristics of sustainability education.

An important aspect of the integration of sustainability into business schools' education is that there is not a "one size fits all" solution, but that the optimal integration strategies are highly dependent on the organizational structure, culture, and other characteristics. In this chapter, we will look at the different options identified in the existing literature, organizing them according to the three levels mentioned in the previous paragraph, namely the institutional, the curricular, and the pedagogical level.

3.1 Institutional Level

Setó-Pamies and Papaoikonomou (2016) identified the main factors that favor the integration of sustainability into education. First, at the institutional level, it is necessary to start by defining the organization's and the faculty's mission, vision, and values regarding sustainability. It is also important to establish a sustainability-oriented culture, which can prevent a change in the business school's top management to root out successful changes in terms of integrating sustainability in the curriculum. Additionally, one way for the university management to signal its commitment to sustainability is to incorporate it into its strategic plans.

Support from the hierarchy and administration are essential conditions for educators to integrate sustainability into the courses and programs (UNESCO, 2017b). This includes the allocation of resources (financial, human, pedagogical, etc.) to units and educators that wish to integrate sustainability into their courses and programs. This support can also take the form of institutional incentives for professors, such as tenure guidelines and departmental norms that promote the integration of sustainability into courses, and/or faculty training workshops (Wiek et al., 2016).

Appointing a sustainability-education coordinator in the organizational structure (Setó-Pamies & Papaoikonomou, 2016) sends not only a strong signal of the organization's commitment towards the integration of sustainability into education, but can also go a long way in providing the necessary resources and support to units and educators. According to Setó-Pamies and Papaoikonomou (2016), this coordinator could also be in charge of communication with stakeholders, which can help overcome resistance to change within the organization, and s/he should be highly motivated. This coordinator can be a manager hired externally, or it can be a professor that holds an important management position and is highly motivated.

3.2 Curricular Level

The curriculum is a "plan incorporating a structured series of intended learning outcomes and associated learning experiences, generally organized as a related combination or series of courses" (Council of Europe, 2023). Therefore, the curriculum defines the learning path for students. Hence, in this subsection, we will consider the way courses can be created, modified, combined, and organized within the business schools' curricula.

First, sustainability can be integrated into a curriculum through stand-alone courses and/or it can be embedded into existing (often disciplinary) courses. An advantage of integrating sustainability into stand-alone courses is that they can be taught by professors and lecturers who are experts in sustainability, while embedding sustainability into all (or most) Management and Economics courses would require educators to acquire the required knowledge and competencies.

However, if sustainability is taught separately from core Management and Economics courses, and by a different faculty group than the latter, it can confuse students and make them perceive sustainability as disconnected from the economic system and from larger business concerns (Carrithers & Peterson, 2006). This is unlikely to happen if sustainability is integrated into core Economics and Management courses, but then educators would have to challenge mainstream worldviews in Economics and Management and encourage students to explicitly analyze the assumptions behind them (Audebrand, 2010), as well as the assumptions behind any of the other worldviews that are implicitly or explicitly introduced by the different courses.

Second, stand-alone courses or core courses that have integrated sustainability can be compulsory or elective. There are advantages to allowing students to choose their courses, including the fact that choice can lead to a higher level of intrinsic motivation (Patall, 2012).

However, if courses containing sustainability are elective, there is the risk that only students interested in sustainability will choose them, losing the opportunity to allow other students to acquire eco-socio-literacy, key competencies for sustainability, and to reflect on their own sustainability-related values, beliefs, attitudes, and worldviews. Moreover, the inclusion of compulsory courses on sustainability in the curriculum signals the importance of sustainability for the organization (Setó-Pamies & Papaoikonomou, 2016).

Third, courses can be offered through courses, degrees, orientations, etc., that already exist in the business school, or through new ones (Setó-Pamies & Papaoikonomou, 2016). Since sustainability courses need to be interdisciplinary, they can be designed and implemented through collaborative approaches between faculty from different disciplines (Kurland et al., 2010). Sustainability courses can also be offered through cross-registration opportunities at partner institutions (Bagley et al., 2020), which can help develop interdisciplinary curricula.

Finally, while the discussion has focused on the curricula, it is also possible to learn about sustainability through extracurricular activities (Setó-Pamies & Papaoikonomou, 2016). For example, volunteer activity is particularly adapted to sustainability education, because it not only allows acquiring eco-socio-literacy and key competencies for sustainability through practices, but it allows reflexive approaches to one's values, beliefs, attitudes, worldviews, and behaviors (Díaz-Iso et al., 2019). Also, the participation in real-life projects in collaboration with local communities are also particularly adapted to sustainability education (Savage et al., 2015).

3.3   **Pedagogical Level**

The integration of sustainability into courses also requires making choices regarding (1) the teaching approaches and methods that can be implemented in the classroom, and (2) the teaching resources that will be used.

3.3.1   *Learning Approaches and Teaching Practices*

It is possible for students to achieve the learning outcomes related to eco-socio-literacy, as well as the knowledge required for the key competencies for sustainability, through lectures. Indeed, a traditional lecture is essentially a transfer of information from the educator to the students, and as such essentially aims at the acquisition of knowledge. However, a lecture is not adapted for students to learn and develop the key competencies for sustainability, nor to

identify, analyze, and understand one's own values, beliefs, attitudes, behaviors, identities, and emotions. Achieving these learning outcomes requires experiential, reflexive, and relational approaches.

We saw that competencies can be defined as "dispositions to self-organisation, comprising different psycho-social components, existing in a context-overlapping manner, and realizing themselves context-specifically. They may be acquired gradually in different stages, and they are reflected in successful actions" (Barth et al., 2007, p. 417). Since a competency is activated in a specific context where the problem at hand requires it, developing it usually requires being exposed to this problem and context. Through repeated exposure to this type of problem and context, and through trial and error, the subject is able to develop and fine-tune this competency. And while this usually requires the acquisition of knowledge, it also requires the active participation of the learner and a reflexive approach on his/her actions and performances when trying to address the type of problem being faced. This is why the key competencies for sustainability can only be learned through experiential and reflexive approaches. Students can, for example, build on their own experiences outside of the classroom, by adopting a reflexive approach to them through essays, diaries, and discussions with other students, etc.

Experiential and reflexive approaches can also be adopted through engagement in community projects with environmental and social projects, as we have seen above. Indeed, projects where students are confronted by "real-life" issues and challenges, and have the opportunity to work cooperatively with practitioners and other stakeholders on these, are particularly adapted to develop the key competencies for sustainability. Experiential and reflexive approaches can also be implemented in the classroom through case studies, games, simulations, interviews, by preparing a sustainability report, by practicing advocacy on behalf of an interested group, or by undertaking change experiments (Bagley et al., 2020). Discussions and debates are also particularly adapted to reflexive approaches (Setó-Pamies & Papaoikonomou, 2016).

Many of these approaches, and especially engagement in community projects with environmental and/or social goals, can also promote reflection on personal values, greater self-awareness, the acquisition of a sense of autonomy, and increased confidence in one's own ability to change the future (Savage et al., 2015). Moreover, the combination of sustainability

education and an active commitment to change enables learners to feel less overwhelmed by uncomfortable emotions such as ecoanxiety and fear (Walsh et al., 2020).

Moreover, reflexivity allows us to question "our assumptions and our role; what we may be saying and not saying; what we may be privileging and taking for granted." (Allen et al., 2019, p. 787). This is why it is particularly adapted to identify, analyze, and understand one's own values, beliefs, attitudes, behaviors, identities, and emotions, and can lead to the development of an ecocentric mindset. This can be achieved through reflexive writing, collaborative tasks where students work together towards achieving a goal, dialogue, debates, requiring students to explore multiple perspectives, group discussions on the sustainability histories of existing organizations, and placing students in situations in which they are confronted by the (different) perspectives of other students (Allen et al., 2019). Discussions and debates among students who have different perspectives create for them "an experiential arena" where "they could reflect on their own reactions and emotions when dealing with different opinions and values" (Hermes & Rimanoczy, 2018, p. 465). These methods and approaches can also allow the development of the normative competency and critical thinking.

In Section 2.1 we discussed the importance of adopting a critical approach to metaphors. The critical analysis of these metaphors (e.g., the war metaphor), in order to identify the assumptions on human behavior that are behind them, can be developed, for example, through case studies where students are placed in the role of the decision-maker, or through class discussions and debates, where business situations are examined through different metaphors (Audebrand, 2010).

Given the key role of emotions in engagement towards sustainability, a particularly interesting method is the "sustainability intervention," where students research the sustainability problem, develop solutions for it, and elaborate a set of recommendations, which are then sent to the organizational decision-makers by letter (Shrivastava, 2010, p. 447). This allows an experiential and reflexive approach and, at the same time, because it allows students to work on a project that can make a difference, it can reduce the incidence and the intensity of ecoanxiety and uncomfortable feelings associated with the awareness of the ecological and social crises (Hermes & Rimanoczy, 2018).

Working on case studies, projects, and sustainability interventions, or the preparation of debates, usually requires students to look for, find, and analyze information (Hermes &

Rimanoczy, 2018). Given that sustainability problems are complex and interdisciplinary, being able to do so in an adequate manner, including the assessment of the credibility and the quality of the source, is a valuable skill.

Moreover, when working on case studies and projects, students can be required to analyze the impacts of the potential strategic actions on each of the stakeholders, which allows them to realize the interconnections between the different stakeholders (Hermes & Rimanoczy, 2018), and to develop stakeholder integration-related competencies. Stakeholder integration has been shown to enhance organizations' environmental sustainability orientation (Amankwah-Amoah et al., 2019) and to help protect the most vulnerable stakeholders from the negative impacts of the ecological crisis (Gersel & Johnsen, 2020).

Finally, teaching methods that promote relational approaches, where participants carry out group activities and interact with nature, including collective meditation on natural elements and nature walks, are particularly suited to working on one's connection with, and compassion towards, oneself, other humans, and the natural environment (Walsh et al., 2020).

3.3.2   *Teaching Resources*

The procurement of teaching materials can encourage professors and lecturers to incorporate sustainability in their courses (Wiek et al., 2016, p. 258). Teaching materials for sustainability education can share some characteristics with those used in core courses in Management, such as placing the student in the role of a decision-maker who is expected to make strategic decisions to elicit experiential and reflexive learning. However, there can be important differences, such as the fact that the creation of teaching materials for sustainability education often requires an interdisciplinary approach (Bagley et al., 2020), which can be difficult to achieve in a higher-education context where disciplinarity is the norm rather than the exception.

Aragon-Correa et al. (2017) have looked into the preferences and concerns of business schools' educators in terms of sustainability and teaching materials. To that end, they surveyed 169 management and sustainability instructors, who were members of the AOM's ONE and SIM divisions. They found that over 60% of the respondents considered case studies to be very important. Videos were also considered very important. In terms of satisfaction with existing resources, academic journals were the best rated and simulations, games, and applications were the worst rated. The survey showed that existing textbooks also received low satisfaction

ratings, even if they have also been described as a valuable tool for the integration of sustainability into Management Education (Stead & Stead, 2010). Finally, the survey showed that educators felt that the integration of sustainability into Management courses requires a higher diversity of resources than for General Management courses, due to the interdisciplinary and complex nature of sustainability. Therefore, according to this survey's results, efforts to develop sustainability-oriented teaching materials useful for business school educators should probably aim at developing a variety of materials, and especially textbooks, games, and simulations, which, when considering existing resources, have been considered the least satisfactory.

In any case, important questions are what teaching materials and methods are most effective, and how can sustainability research can adequately be incorporated into these materials (Starik et al., 2010). Finally, Aragon-Correa et al. (2017) identify the characteristics that teaching materials for sustainability education in business schools should exhibit. They should be (1) cross- or interdisciplinary; (2) broad in terms of the strategic problem's scope, allowing students to address problems that are complex and diverse; (3) grounded in a comprehensive set of questions about design, implementation, and outcomes, which consider not only the "what", "why", "who", "when", "where", but also the "how" and the "so what"; (4) representative, engaging, and vivid, in order to promote experiential learning; and (5) inclusive of issues related to business success and/or failure. The latter is related to the fact that a business still needs to be economically viable to survive.

4 Barriers to the Integration of Sustainability Into Courses and Programs

Integration of sustainability into business schools' courses and programs can be hindered by some organizational- and individual-level factors. In this chapter, we identify and describe six types of barriers, based on extant literature in Management, Sustainability, and Education Science. The identification and characterization of these barriers, as well as the results of the literature review and the analysis carried out in Sections 2 and 3, will allow formulating recommendations in Section 5.

4.1 Barriers Related to the Expected Role of Higher Education in a Market Economy

In today's market economies, education is, on the individual's side, a means to find a position in a competitive job market, and on the companies' and other organizations' side, the way to have productive workers who can perform the required tasks. This is probably one of the reasons why the acquisition of knowledge and skills that have a direct and visible application to the job market, is emphasized by the educational system, leaving little room for learning outcomes that are not directly applicable to the labor market. This includes a student's set of values, beliefs, attitudes, identities, and emotions, which constitute, as we saw, students' "inner worlds" (Ives et al., 2020).

Acquiring disciplinary knowledge and competencies, as well as socio-eco-literacy, is necessary to address current environmental and social challenges and for graduates to access interesting job opportunities. However, sustainability education cannot afford to ignore the students' values, beliefs, attitudes, identities, and emotions, which are key drivers of personal and collective engagement towards sustainability (Ives et al., 2020; Pihkala, 2020; Vandaele & Stålhammar, 2022). In business schools, most of the courses and programs focus on theory and concepts, analysis and investigation techniques, methods, and reporting and communication skills, and there is little space, if any, for learning outcomes related to the students' "inner worlds." It should also be noted that the higher education system is also expected to grade students, and learning outcomes based on knowledge and skills are easier to measure than those related to these "inner worlds." Indeed, it is far easier for an evaluator to measure whether a student has understood the chemical reactions related to ocean acidification, or whether a student is able to apply the systems thinking competency by elaborating a comprehensive mind

map, than to determine the extent to which a person has developed the intra-personal competency, which, as seen in Section 2.2., is the "ability to avoid personal health challenges and burnout in advancing sustainability transformations through resilience-oriented self-care (awareness and self-regulation)" (Redman & Wiek, 2021).

4.2 <u>Lack of Interdisciplinarity</u>

Most university students follow curricula that are often organized along disciplinary lines, which can severely compromise their ability to deal with sustainability related problems, which are complex, interdisciplinary, and require cooperative approaches. This is mostly due to the organization of universities in disciplinary faculties and departments, where, according to Michael Crow, President of Arizona State University, faculty members tend to work in silos (The SDG Academy, 2022).

This highly disciplinary higher-education context has several causes. Most professors and lecturers work in silos because they have built disciplinary profiles and carry out their research in very specific disciplinary fields and subfields, due to the educators' incentives to specialize, their attachment to their disciplinary knowledge-based approaches, the way the publication system works, and university hiring practices (Lange, 2011; The SDG Academy, 2022).

The educators' incentives to specialize and their attachment to their disciplinary knowledge-based approaches has one important cause. For both educators and students, understanding each of the environmental, social, and economic issues that a company faces, the politics that are involved, the technical implications, the compliance requirements, etc., is a huge undertaking, even for those who have an interdisciplinary background (Aragon-Correa et al., 2017). Moreover, different disciplines use very different vocabularies, and adopting a truly interdisciplinary approach in a course means that the educator needs to be familiar with the differences in vocabulary.

These issues can be identified in Kurland et al. (2010)'s description of the development and implementation of a 15-week interdisciplinary undergraduate course on sustainability. First, this course was designed and taught by a team of seven faculty members from different disciplines (family and consumer sciences, geography, management, political science, psychology, recreation and tourism, and urban studies). One of the main problems encountered by both faculty and the students is that specialists from different disciplines lacked a shared vocabulary and had different assumptions about the world. They also found that the connections

between disciplines were limited because each faculty member focused on his/her discipline. Therefore, they suggested the development a shared lexicon, and for faculty to make the intersections between disciplines "more alive for the students" (Kurland et al., 2010, p. 469).

4.3 Lack of the Required Educators' Knowledge and Competencies

First, in terms of knowledge, the disciplinary training and profiles of business schools' faculty members leads some of them to teach theories, concepts, and frameworks, such as the self-interested model of human behavior, that are incompatible with truly sustainable practices (Frank et al., 1993; The SDG Academy, 2022). This also applies to the war metaphor described in Section 2.1.

At the same time, we have seen in Section 3.3.1 that the lecture format is not adapted for students to learn and develop the key competencies for sustainability, nor to identify, analyze, and understand their own values, beliefs, attitudes, behaviors, identities, and emotions. Achieving these learning outcomes requires experiential, reflexive, and relational approaches. However, most professors and lecturers have not been trained in teaching methods that promote this type of learning. Moreover, moving away from lectures to formats that promote this type of learning requires moving away from the roles of teacher-as-information-provider and student-as-information-receiver (Starik et al., 2010), and to empower students to actively participate in their own learning process.

As seen above, sustainability education also requires including the students' "inner worlds" into the learning outcomes. However, the preoccupation of sustainability researchers and academics with external phenomena and social structures has led them to ignore the importance of people's inner worlds. James Gustave Speth, a law professor and environmental activist, reported that: "I thought the main environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought that with 30 years of good science, we could solve these problems. But I was wrong. The main environmental problems are selfishness, greed, apathy... And to tackle them, we need a spiritual and cultural transformation - and we scientists don't know how to do that." (Ives et al., 2020, p. 208).

First, many researchers hold axiological neutrality (Weber, 2021) as the gold standard, which means that addressing values, beliefs, and attitudes in a university context can be seen as highly problematic, and yet this is at the heart of sustainability education (Hermes & Rimanoczy, 2018). However, while some university and business school educators may feel

that it is not their business to discuss values and beliefs with students, sustainability education requires that the educator help students clarify their beliefs and values, while taking care not to impose their own (Pellaud, 2011).

Regarding learning outcomes that involve emotions, there is an important issue that must be considered, namely the limits of emotional work in a business schools' context. Although educators can develop skills in managing ecoanxiety and emotions, most of them are not psychologists with the competencies required to be therapists and may feel that it is not their job to discuss emotions in the classroom. However, sustainability education cannot afford to ignore emotions, as seen in Section 3.2. This also involves the educators' emotions, because sustainability educators, or educators in other disciplines, who, through the integration of sustainability into their courses, have learned about the ecological and social crises, can also suffer from ecoanxiety and uncomfortable emotions.

Ideally, according to Pihkala (2020), these educators should work on their own emotions, and develop skills to channel their emotions, manage emotional energy, and avoid projecting emotions onto students. They should be sensitive to, recognize, and validate students' emotions, because this can be a relief for students. However, and according to this author, the educator's role in emotional work should be clearly defined and interdisciplinary teams that include psychologists should be set up within educational establishments. In particular, Pihkala (2020) stresses the importance of determining the circumstances in which the educator should refer the student suffering from ecoanxiety to a psychologist.

Finally, it is not only educators that can feel uncomfortable with emotional work, but also students. Indeed, including emotions into "traditional courses" can generate, among students, a fear of embarrassment and ridicule, which is why it is important to adopt an incremental approach to including emotions in the classroom, which should allow students to become familiar and comfortable with this approach (Shrivastava, 2010).

4.4 <u>Barriers Related to the Publication System and the Universities' and Business Schools' Hiring Criteria</u>

According to Michael Crow, from the research perspective, the generation of the knowledge and innovation required to meet sustainability challenges is being sidelined in favor of research themes and methodological approaches that are determined by the expectations of

the editorial boards of the highly specialized disciplinary journals at the top of the rankings (The SDG Academy, 2022). This shapes the domains of expertise and the highly disciplinary profiles of professors and lecturers in universities and business schools, and runs counter to the knowledge and competencies they would need to adequately prepare students to face, personally and professionally, the environmental and social challenges of the coming decades.

This effect is reinforced by the fact that the priorities of many universities are to hire highly specialized professors within disciplinary departments and to obtain funding (The SDG Academy, 2022). Moreover, current tenure paradigms tend to be "conservative, risk-averse and biased toward research outcomes" (Wiek et al., 2016, p. 258).

4.5   Lack of Support of the Hierarchy

While some universities and business schools are highly favorable towards the integration of sustainability into the curriculum, and even to including the students' "inner worlds" in the learning outcomes, this is not always the case. For example, Wamsler (2020) designed and implemented a sustainability course that focused on the students' "inner worlds," which included mindfulness and meditation exercises, walks, and deep listening. Although a survey showed that students appreciated the approach and would like to see theory and practice on inner transformation fully integrated into the curriculum, the course encountered institutional and bureaucratic obstacles, as well as academic resistance.

Sometimes, the lack of support does not include any kind of opposition or resistance from the hierarchy, but efforts by sustainability champions in the organizations are simply ignored or do not receive support in the form of financial, human, or teaching resources.

4.6   Resistance From Educators and Other Stakeholders

Finally, even if the hierarchy is actively promoting the integration of sustainability in courses and programs, there can be resistance from professors and other educators, administrators, and other stakeholders within the university or business school. Some of the causes of this resistance have been identified by Setó-Pamies and Papaoikonomou (2016) and include a limited perceived relevance of sustainability in some disciplines and courses, competing agendas, lack of time, perceived extra workload, a conservative attitude towards change, and lack of information on how change is supposed to be implemented. Moreover, given that the financial resources available for research and teaching are limited, some are

apprehensive of a potential reallocation of resources from research topics that are not directly related to sustainability to others that are.

5   Recommendations and Conclusion

Having first discussed the sustainability learning outcomes in Section 2, the options in terms of integration of sustainability into courses and programs in Section 3, and the barriers to such integration in Section 4, I will rely on the results and conclusions of these three sections to provide some practice-oriented recommendations for business schools.

Section 4.1. explained why the expected role of higher education in a market economy seems to have relegated the development of students' "inner worlds" to a minimal, or even non-existent, role in the learning outcomes. However, these "inner worlds", which include emotions, play an essential role in students' well-being and in their personal and professional engagement with sustainability. Existing literature in sustainability education already provides valuable insights on how the development of these "inner worlds" could be included in the learning outcomes and the pedagogical approaches that would be suited to do so (see, for example, Pihkala, 2020; Walsh et al., 2020; Wamsler, 2020; and Woiwode et al., 2021). Therefore, further research should look into these important aspects of sustainability education.

Section 4.2 pointed out an important barrier to the integration of sustainability into the curricula in higher education institutions, which is the lack of interdisciplinarity. This included not only the difficulties associated with the development of truly interdisciplinary courses, where learners do not have the impression that they face a set of disciplinary lectures with limited connections between them, but also communication issues within interdisciplinary teams due to the fact that each discipline has its own specific terminology and concepts (Kurland et al., 2010). This issue could be addressed by rethinking the higher education establishments' hiring policies, which are focused on research performance and favor highly disciplinary profiles. If recruitment criteria gave more weight to profiles characterized by interdisciplinarity, faculty members would be, on average, better prepared to teach basic interdisciplinary sustainability courses and to integrate sustainability into disciplinary courses.

This could be combined with other measures aimed at building bridges both between disciplines and between disciplinary faculties and departments. First, with training programs for faculty aimed at developing eco-socio-literacy and the inter-personal competency, which is a key competency for sustainability that includes the ability to collaborate successfully in interdisciplinary teams. This collaboration requires being able to communicate and coordinate

with experts from other disciplines. Second, higher education institutions could introduce funding opportunities for inter-faculty or inter-departmental teaching and research sustainability-oriented projects and initiatives, such as inter-faculty courses on sustainability-related subjects. The development of this kind of projects and initiatives could also be incentivized through a reduction of teaching load for the educators and researchers who are involved. Third, publications in interdisciplinary journals could be incentivized through reward systems aimed at researchers, as well as through tenure guidelines and departmental norms.

Moreover, Sections 3.3.1 and 4.3 discussed why and how sustainability learning outcomes related to key competencies for sustainability and students' "inner worlds" require experiential, reflexive, and relational approaches. However, many professors and lecturers have not been trained in teaching methods that promote this type of learning and, as seen in Section 4.3, do not have the competencies (or the disposition) to address and discuss values, beliefs, attitudes, behaviors, identities, and emotions in class. To address these issues, similar measures as those described in the two previous paragraphs (hiring policies, training programs for faculty, and incentive systems) could be helpful.

However, the introduction of values, beliefs, attitudes, behaviors, identities, and emotions into learning outcomes is a very complex issue, which is unlikely to be entirely resolved through hiring policies, training programs, and incentive systems. Indeed, it seems perfectly understandable that an expert in a discipline that is unrelated to social sciences and/or psychology would feel that it is not his/her role to address values, beliefs, attitudes, behaviors, identities, and emotions in class. Pihkala (2020) provides some valuable insights on how this issue could be addressed. These include the importance of defining the educator's role in emotional work, including the circumstances in which an educator needs to refer a student suffering from ecoanxiety to a psychologist, and the benefits of relying on interdisciplinary teams that include psychologists. However, the introduction of values, beliefs, attitudes, behaviors, identities, and emotions into learning outcomes and, ultimately, courses and programs, requires additional research, as well as discussions within and across higher education institutions.

Section 4.3 also discussed how the disciplinary training and profiles of business schools' faculty members lead some of them to teach theories, concepts, frameworks, and metaphors, such as the self-interested model of human behavior, that can hinder sustainability-oriented behavior. In this case, one potential solution could be to expose students to the different models of human behavior described in social sciences, to a diversity of metaphors about our

relationship with the Earth, as well as to a multiplicity of economic and social theories built on different assumptions of human nature and behavior. This should be complemented with the application of critical thinking skills to all these models, metaphors, theories, concepts, and frameworks, and would allow the development of the normative competency seen in Section 2.2.

Section 4.4 is focused on barriers related to publication and recruitment practices. Besides favoring disciplinary profiles among faculty and the organization of higher education institutions into disciplinary units, publications and recruiting practices do not sufficiently promote the generation of the knowledge and innovation required to meet sustainability challenges. This could only be addressed through significant changes in the publication system and, at the level of higher education establishments, through recruitment policies and incentive systems that favor interdisciplinary research and teaching, as well as pedagogical approaches and methods that are adapted to the sustainability learning outcomes (please see Section 2 and Section 3.3.1).

Section 4.5 showed that there can be institutional and bureaucratic obstacles and opposition from the hierarchy to the integration of sustainability into the curriculum. Sometimes, rather than opposition, there is simply no institutional support for sustainability champions who are interested in this integration. Opposition can also come from educators and other stakeholders who are not in executive roles, as shown in Section 4.6. First of all, the support of the chancellor's and the deans' offices, and the departments is essential for the integration of sustainability into the curriculum. One reason is that this integration requires financial and human resources, including the educators' time, which are allocated by these hierarchical structures. Therefore, recruiting presidents, rectors, vice-rectors, deans, vice-deans, and heads of departments and units that are favorable to the integration of sustainability into the curriculum is probably a necessary condition for a higher education institution to move towards this goal. Second, constant communication and exchanges with educators and other stakeholders is essential to overcome the resistance described in Section 4.6. This can be achieved, as described in Section 3.1, by appointing a sustainability coordinator who would oversee this communication and listen to stakeholders' concerns.

Section 4.6 also points out that one of the barriers to educators introducing sustainability into their courses is the lack of time and perceived extra workload. This, combined with the (perceived or actual) lack of knowledge or competencies required to develop or to adapt a

course that enables students to achieve sustainability learning outcomes, can be a powerful barrier to the integration of sustainability into courses. One solution that could be helpful is to provide educators not only with training, but also with a diversity of teaching materials, including books, games, simulations, and case studies, that address a diversity of sustainability programs, with different sets of environmental and social dimensions and trade-offs between objectives. They should be engaging and promote experiential, reflexive, and relational approaches. Aragon-Correa et al. (2017) showed that business school educators were particularly unsatisfied with textbooks and seemed to rely on research papers to prepare their courses (please see Section 3.3.2). This suggests that the development of textbooks that could be directly used in teaching would be a valuable teaching resource.

An additional recommendation would be the promotion of extracurricular activities, because, as seen in Section 3.2, they enable an experiential, reflexive, and relational approach to education. This could easily be achieved through the validation of acquired experience (VAE), which allow students to obtain recognition of their professional and/or extra-professional experience in the form of academic credits, or by including internships in the curricula.

Finally, it is important to acknowledge that, while this report covers several barriers that are found in many business schools, there could be others that are linked to specific local institutional and cultural contexts that are not included in this report. Indeed, while higher education institutions share common characteristics, each one has its own, which depend on its history, organizational structure and culture, and regulatory and political context, among other things. This is also the reason why the recommendations provided here tend to be situated at a general level. In any case, an important aspect to keep in mind is that there is no 'one size fits all' solution, and therefore that general recommendations need to be adapted to the characteristics of the higher education institutions, and that if a "first-best solution" is likely to fail, it may be a good idea to go for a "second-best solution" (Setó-Pamies & Papaoikonomou, 2016, p. 534) that is adapted to the institutional characteristics, context, and resources.

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