9.7

KEY LEARNINGS FROM INTEGRATING SUSTAINABILITY IN EUROPEAN HIGHER EDUCATION INSTITUTIONS

The value of networks and reflective leadership

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Key concepts for sustainability education

- Higher education institutions need to acknowledge their role in supporting progress towards sustainable development and take responsibility for addressing sustainability challenges.
- Institutional sustainability integration processes in higher education are diverse but follow recognisable patterns.
- Integration of sustainability can range from a "bolt-on" to a "whole-institution" approach.
- Sustainability champions steer institutional sustainability integration processes.
- Networks and personal leadership are key drivers for integrating sustainability in higher education.
- Sustainability champions go through a variety of learning processes that can and should be fostered by adequate networks and institutional support.

Introduction

Integrating sustainability in higher education

The transition to sustainable development (SD) requires new ways of thinking and acting in the world, and transformative learning is a core lever for this. Universities have an important role to play, as they can act as catalysts for transformative change by educating future change agents (Brundiers et al. 2021; Orr 2004) and by being hubs for innovation and community engagement (Wals et al. 2016). As Sterling (2021, 1) points out:

> "Formal education systems have – or should have – a critical role in the global social learning process underpinning the Great Transition. . . . [But] it is not so simple. If

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> education is to be an agent of change, it has itself to be the subject of change. Our educational systems are implicated in the multiple crises before us, and without meaningful rethinking, they will remain maladaptive agents of business as usual, leading us into a dystopian future nobody wants".

The Berlin Declaration (UNESCO 2021), recently released by UNESCO, explicitly embraces transformative learning as a key process to engage individuals and society in sustainable development, as such learning supports holistic personal and collective development, iterative learning cycles, and the paradigm change needed for behaviour change (Mezirow 2009). Ultimately, introducing transformative learning into higher education implies adopting a "whole-institution approach" to integrating sustainability into higher education (HE), i.e., by incorporating sustainability into teaching and learning, research, campus operations, and outreach, while engaging a variety of stakeholders (COPERNICUS Alliance 2012).

In his recent call for rapid and full integration of sustainability into HE, Sterling (2021, 3) distinguishes between four levels of integration: "(1) no response, (2) accommodation, (3) reform, and (4) transformation". These levels correspond with his earlier, more elaborate categorisation applied to education as learning and teaching in the context of the education for sustainable development (ESD) debate (Sterling and Thomas 2006), summarised in Figure 9.7.1. This differentiation between (1) "denial" and "no change", (2) "bolt-on" and "education about sustainability", (3) "build-in" and "education for sustainability", and (4) "redesign" and "education as sustainability" constitutes a very insightful framework for analysing what level of institutional sustainability integration has been reached by universities in the context of the higher education for sustainable development (HESD) debate (Barth et al. 2016). Ultimately what needs to be reached is a paradigm change, "education as sustainability", which is only possible with a whole-institution approach.

Given the urgency of the Berlin Declaration's call, it is important to ask how universities are engaging with sustainability in practice and what strategies they are using to increase integration and possibly introduce transformative learning. A large number of universities have been actively integrating SD (and more specifically ESD, see Weiss and Barth 2019), especially since the launch of Agenda 2030 and the Sustainable Development Goals (SDGs) (UNESCO 2020). But universities that have succeeded in redesigning their organisation are rather rare (Weiss, Barth, and von Wehrden 2021). Do we understand when such radical organisational change occurs, and how it can be designed and fostered? Evidence from single case studies (Trechsel et al. 2018) exists, as well as theoretical reviews on drivers and barriers (Barth 2015); recently, more generalised insights from a meta-study (Weiss 2021) have been made available. But discussions about SD also always insist on the importance of context and diversity; thus details matter as well.

This chapter shares the sustainability integration stories of five European higher education institutions, told by actors who were involved in different ways and responded to different contexts. Using Sterling and Thomas's (2006) four levels of integration as a conceptual framework for analysis, it illustrates the nuances of driving and hindering factors often missing in published case studies, theoretical work, and meta-studies. For example, how was the university community engaged in the integration process, what tools were used for communicating about HESD, and how does culture affect participatory processes?

Level	HEI response	Type of ESD	Description	Pedagogical Approach
high/ very strong	redesign	education *as* sustainability	-holistic change and paradigm shift that places sustainability principles, ethics, and values at the core of the curriculum and requires the engagement of the entire person and institution -ESD is integrated into common core requirements and/or the vision of the HEI	emancipatory & transformative (third-order learning)
middle/ strong	build-in	education *for* sustainability	-significant changes to the curriculum are made by including coherent coverage of content, values, and skills associated with sustainable development and a critical questioning of assumptions -sustainability is addressed in (interdisciplinary) programs/courses that focus on integrating sustainability issues -first linkages of ESD modules to other HEI areas such as operations/campus	
low/ weak	bolt-on	education *about* sustainability	-leaves current paradigm change unchallenged -sustainability concepts are added to specific existing disciplinary courses or programs (content based sustainability literacy) -minimal effort from the institution	instrumental & simplistic (first-order learning)
very weak	denial	no change	/	

Figure 9.7.1 Levels of institutional sustainability integration in higher education (adapted from Sterling and Thomas 2006).

Given that a variety of factors can influence the integration process and that arbitrariness of detail would lead to irrelevance, we focus on two factors in particular that have not yet sufficiently been explored in former research within this context, although they have been highlighted as significant in earlier HESD documents: leadership and networks (see Rio Treaty: COPERNICUS Alliance 2012; Dlouhá et al. 2018).

Transformative change does not just happen, it requires leadership. We explore how integration of sustainability in HE is led and by whom, drawing on Ferdig (2007), who argues that transformative change requires a new form of leadership, where holding formal leadership positions may not be the same as acting as a leader. Ferdig (2007) suggests an understanding of leadership in which everybody can choose to be a leader, means of leading with others instead of over others are needed, and holistic interconnections between people and natural systems should be acknowledged. Therefore, we use the term leadership not only to describe formal top-level leadership (e.g., presidents, deans) but also bottom-up approaches where any university community member can lead processes of embedding sustainability within the institution.

In addition, to lead transformative change, individuals need to be motivated and capable of doing so. This requires relationships different from the ones usually governing academia and dominated by the principle of competition. When leadership needs to be transformative, it must rely on collaboration, which is why we also analyse what role networks play in integrating sustainability into HE (Scott et al. 2012) and how networks support individuals' leadership development. In other words, leadership and networking go hand in hand (Zimmermann, Mulà, and Diethart 2021).

Our interviewees were given the possibility of defining networks in the ways that made most sense to them in the context of embedding sustainability into their own higher education institution (HEI). For some this meant consolidated international, regional, and national networks or Regional Centres of Expertise (RCEs) aiming to mainstream sustainability in HE with typically more formalised structures (Dlouhá et al. 2018; Mochizuki and Fadeeva 2008). Others associated the concept with informal learning networks in the sense of communities of practice (Warr Pedersen 2017).

By sharing these leaders' stories of transformation (Lotz-Sisitka 2004), we expect to add nuances to known drivers and barriers and hope to open the possibility of learning from others' experiences. We thus rely on phenomenological arguments buttressed by comparisons between understandings and experiences of HESD, leadership, and networks. We invite the reader to reflect on what might work best in their own context when aiming to reach a higher level of institutional sustainability integration.

Capturing stories of integrating sustainability in universities

Rich stories, guided by a sound methodology and a process-oriented focus (Corcoran, Walker, and Wals 2004) and revealing personal insights and emotions, are an invitation to reflect on described experiences against one's own background and perspective. The five European universities selected for this study are members of the COPERNICUS Alliance (CA). They were chosen as case studies that are as diverse as possible in terms of region, focus, and size (see Table 9.7.1). We sent requests to six CA contact

Table 9.7.1 Characterization of case studies

	Kaunas University of Technology	*Daugavpils University*	*Hasselt University*	*Vienna University of Economics and Business*	*University of the Basque Country*
Country	Lithuania	Latvia	Belgium	Austria	Spain
Number of students	9,040	2,200	6,500	25,000	45,000
Focus	Technology, but also social sciences	Teacher education, but also life sciences, social sciences and management	Civic university committed to the Region and World; diverse disciplines	Economics	Collaboration with local society; diverse disciplines

persons and conducted interviews with five individuals (one per university) willing to share their stories and to contribute to the collective effort of advancing the HESD agenda. All interviewees had been working at their universities for a long time and are still intensely involved in the process of integrating sustainability. Therefore, they had extensive knowledge of the internal implementation process at their HEI and could share rich and reflective stories and learnings from their perspective. The interviewees were given the chance to validate the results described later. The gender ratio was three/two in favour of the female gender.

The interviews took place in September 2021 and were conducted and recorded digitally via Zoom by the first author. They were scheduled for 1 hour; the shortest lasted 40 minutes and the longest 2.5 hours. The interviews were semi-structured, with the intention of listening to the stories and adapting the questions and their order if needed (Lune and Berg 2016). The interview questions were formulated so that responses could address the objective of our research; they were discussed and agreed upon by an international interdisciplinary team (the authors of this chapter). Questions and follow-up questions covered the following areas:

- *Personal profile:* interviewee's job profile, duration of employment at the institution, ESD teaching experience.
- *Understandings of SD & ESD:* personal understandings of SD & ESD and (official and/or informal) institutional understandings of SD and ESD.
- *ESD implementation process:* impetus, stages, levels of implementation, whole-institution approach, drivers and barriers, key influences, future plans.
- *Networks:* role of networks for implementing HESD and the development of leadership skills.
- *Personal leadership:* role and learning process within/during the institutional sustainability integration process.
- *Lessons learned:* learnings, suggestions, and coping strategies to share with others, to support transformation towards a whole-institution approach at one's university.

The interviews were partially transcribed and analysed through deductive qualitative content analysis (Mayring 2015), using the categories mentioned earlier. Quotes in this chapter were adapted for grammar and vocabulary, as English was not the first language of the interviewees. To describe the level of integration of sustainability in HE, we used the framework (Figure 9.7.1) based on Sterling and Thomas (2006).

Voices from five European universities

University of the Basque Country (UPV/EHU)

> "After some years, most people from the different faculties have ownership of sustainability topics, [. . .] probably because the process was so participatory."

The level of anchoring sustainability can be described as *build-in* on the way to *redesign*. UPV/EHU aims at achieving a *whole-institution approach*. Sustainability is implemented in teaching at all levels, as well as on campus, in research, and in outreach activities, with some

synergies between the sectors (e.g., campus laboratory project-based learning). A holistic SD understanding is supported by the *top leadership level* and formalised in a *strategy*. The understanding of ESD can be described as *education for sustainability*, moving towards *education as sustainability* (see Figure 9.7.1); this is currently steered by a specific project (until now ca. 15 % of all study programmes).

UPV/EHU is only 40 years old. First, sustainability-related programmes and strategies started separately, focusing on environmental topics, inclusion, or gender equality. In 2010, Spain entered the European Higher Education Area (EHEA) system, which "brought a lot of changes" and occupied the university community with other priorities such as adapting all study programmes and using new pedagogical approaches (e.g., cooperative and active learning). After completing this adaptation and being involved in the Basque government's SDG strategy process, as of 2016 the university started to take into account the *2030 Agenda*. In 2017, a new *leadership* team (presidential level) aiming to integrate SD throughout the university was elected. This new team immediately embraced its responsibilities with regard to the 2030 Agenda and started a process of connecting former individual efforts, different disciplines, and different groups of people through a *participatory process* and the appointment of a *sustainability manager*. The sustainability manager works with an interdisciplinary team of five staff members who foster HESD. The team coordinates development of the *sustainability strategy*, *connects staff and students from different disciplines*, supports researchers, and together with the education counselling service, provides *faculty training* to support embedding of ESD across the curriculum. For instance, to further highlight the holistic understanding of SD, an online course on general aspects of SD, in which different experts from different disciplines explain what SD means to them, is offered to the whole university community.

The participatory process involves students, staff, and academics, who in general share a positive attitude toward HESD. However, the interviewee highlighted that top-level leadership was really needed, as "people from different groups [at UPV/EHU] don't see it as their role to start something bottom-up. They wait for top-down support/approval". Gaining these groups' confidence required taking stock of what was already being done (*inventory*) and what the university community envisions in future. For instance, world cafés and online discussion spaces were offered to students. Interestingly, engaging the students, especially online, proved difficult, as they were not used to having a say in such decisions. The leadership team and governance groups participated in well-prepared one-hour meetings. As a result, a *sustainability strategy (2019–2025) with steps and indicators* was developed and broadly accepted.

The status of achievement of the strategy goals is continuously communicated through the university's sustainability webpages and the university's *communication* team. To communicate the strategy, pictogrammes (building upon the SDGs and adding new ones) have been developed and are used in formal, informal, and research documents as well as for study programmes, highlighting what action contributes to which strategy goal.

With the recent change of rector in 2020, the focus has shifted from embedding sustainability in teaching and community engagement to integrating it into *research*. The sustainability communication plan will also be improved by producing more content for social media to reach students better. Moreover, UPV/EHU wants to focus on developing and implementing transdisciplinary projects as well as assessing their contribution to sustainability in Basque society (a first report will be published in 2022).

Hasselt University (UHasselt)

> "There is enough support . . . we don't want sustainability to be imposed on people, top down, instead we want . . . sustainability . . . to be supported by everyone".

For UHasselt, the level of institutional sustainability integration can be described as being at the *build-in stage*. A *strategy* is in place with sustainability as one of four pillars. Furthermore, a *whole-institution approach* is being applied, ultimately aiming for redesign.

UHasselt is a civic university (i.e., committed to serving the local and global communities) and sustainability issues are implicitly anchored in its tradition. Around 2015, the university started a process of discussing what was already being done for SD (*inventory*), supported through an external consultancy (cifal, https://cifal-flanders.org/) that focused on integrating the SDGs. However, what led UHasselt in 2019 to really make HESD explicit was realising that they were the only university in Flanders without an explicit sustainability policy plan. To foster HESD, the new rector (since 2020) framed sustainability as one of four key transversal themes for all activities. This provided the already existing *steering committee* with strategic support for integrating sustainability more strongly and in a coordinated manner: "And that's really the vehicle that made everything possible", as there is now a formalised advisory body. The whole process is very participatory. Every faculty and every programme must have a representative in SD discussions. Representatives participate in meetings and have the duty to share information with their faculty/programme after meetings. This *participatory process* seems particularly important, as the institution experienced drawbacks when a former education policy plan was introduced top-down, without a democratic process. *Communication* is happening mainly via participation and many discussions, which "make sure that there is enough support [from the university community]" for UHasselt's SD efforts.

An *accreditation agency* also served as inspiration for the university to apply "SD-related maturity levels" to their programmes. However, often – due to different *understandings of SD* – some disciplines still do not see the relation between their discipline and SD (e.g., some researchers in the Faculty of Medicine and Health Science initially did not perceive their work as strongly related to SD through provision of health care and well-being). The interviewee explained that this might be due to the former SD understanding being very narrow 10–15 years ago, but this is now changing. To address this challenge the steering group arrived at a *shared and explicit understanding of ESD and SD* including the SDGs, planetary boundaries, the growth-degrowth debate, complexity, a set of competencies, transformative learning, etc. The steering group's theoretical ambitions are very high, but in practice it seems that the background (i.e., disciplinary background, attitude towards SD, former experiences regarding HESD) of academics influences how innovative teaching and learning methods are perceived. Most lecturers and professors lack pedagogical knowledge to apply *education as sustainability* and have never heard of transformative learning, but they have great sustainability content knowledge in their field. Also, students seem to hesitate to be introduced to transformative learning: "We are struggling with that because that's a *cultural* thing. We can try it but when we do, we see that our students hesitate: 'Oh, what's happening? I have to talk?' "

To cope with such difficulties, *support* is being offered by UHasselt for all employees (with such offers as a teacher professionalisation programme, a training for understanding wicked SD issues, a learning community, etc.). Support is also offered by the *government*

through an environmental department that collaborates with HEIs, offering an online learning path.

> "But one of the reasons why I think it is tough is because we already have so many changes, and the world is getting more complex [. . .], and ESD is something new that is coming their way again, as something extra. [. . .] We don't want people to be demotivated because it is something new. We are looking for ways in which they can see that they already do that. We just want to give space to elaborate on that. So, we want to give our professors motivation and autonomy to work on sustainability. And that's more in the sense of a driving force instead of . . . imposing it top-down".

What does not make it always easy to implement new topics is that the job of a professor is already very full and often filled with other extra work (for instance, the integration of some college degrees into the university system, which implies a stronger research focus). Apart from this, external drivers to steer HESD have been and are *increased social awareness* (due to local flooding) and the *European Green Deal* (at least for the business faculty).

To put the vision into action, goals have been developed with *indicators* to measure the progress; once they have been applied, external communication will be strengthened accordingly.

Vienna University of Economics and Business (WU)

> "The biggest input has been the rector . . . so the top of the university says: Yes, we want to become sustainable at any cost".

> "So it was money and power. . . . Now this is very sad . . . it was not innovation, cooperation, or participation".

For WU, the level of institutional sustainability integration can be described as hovering between the *bolt-on and build-in* stages. Sustainability issues are strongly integrated into campus sustainability (new, very energy-efficient buildings) and research (as most European-funded projects require integration of SD topics); integration in teaching and learning (e.g., slowly the growth-degrowth debate is finding its way into economics textbooks) and outreach activities are improving. Moreover, the university has a well-established UNU Regional Centre of Expertise (RCE). SD is partly integrated into WU's *mission statement* and anchored at the centre for competencies, with every business student required to participate in a one-year course on SD. However, there is *no formal and shared understanding* of what ESD means; for most teaching staff, it seems to be more like a first-order learning approach, and only pioneers have a deeper understanding and praxis of second- and third-order learning (see Figure 9.7.1.).

The decision to integrate sustainability more strongly at WU was taken by the former president in 2009. This *top-down decision* was then pushed against internal barriers and *without great participation*. To achieve this implementation, the former rector created a *commission* to steer SD. This was not a well-coordinated process, but those involved had discussions around the meaning of SD (some saw it as long-lasting) and working groups. Two years after the initiation, the rector established a *coordination office* for SD and suddenly things evolved. At the same time, with the support of the former rector, an *RCE* was established by an engaged researcher in 2011. The RCE is doing a lot of work steering HESD issues, e.g., giving faculty training, coordinating SD efforts, reaching out to

practitioners and society at large, etc. However, the RCE is not an officially formalised and independent centre, and it is not well-known at its institution.

A main driver is that SD has become a cornerstone of the "Leistungsvereinbarung" (performance agreement with the ministry of the state/country) since 2018. Suddenly things are changing: SD pioneers within WU are involved in incorporating their expertise and describing their SD initiatives for the performance agreement. Through this "many pioneers got a boost . . . now they can evolve, they can grow, they can influence".

> "It was very interesting for me that through money, the ministry really has this leverage . . . and suddenly there is space for sustainability".

The interviewee explained that members of the ministry shared that *societal pressure*, influenced by Greta Thunberg's engagement, forced the ministry to prioritise SD issues. Within the WU there was, and is, a lot of fear regarding change: "the effect on an innovative university maybe wouldn't be that big, but on my [rather conservative] university, it is enormous". For example, many carefully planned steps were blocked after a year, and efforts turned to adapting to resistance and trying to make the best out of the situation. Student involvement is not so strong; most students can be described as having a high income and being interested in SD issues when it comes to their health and lifestyle. Only a low number can be called critical thinkers (ca. 15 % of students).

Reflecting on the process, the interviewee sees it as an evolutionary process with some basic mechanisms and a lot of luck and bad luck: a formal strategy would not have led them to where they are now, "I couldn't foresee any trend . . . and now I'm completely surprised". The key drivers were leadership support from the top, political support, and guidelines.

Since 2015, WU has a new president with a background in gender and diversity topics; she is also supportive of SD. In addition, the RCE is striving to become a formalised centre (with some external funding), with the plan of establishing an SDG innovation centre (e.g., for training startups on SDGs); this is supported by the rector.

Kaunas University of Technology (KTU)

> "You can look at very nice results from some projects, but the process is a black box. It somehow happens, but it is not a structured organised process [. . .] it happens, because some people are passionate about that [. . .] and we are getting quite good results".

The level of anchoring sustainability at KTU can be described as situated between *bolt-on* and *build-in*. There are some SD-related courses (e.g., sustainable fashion in the fashion design study programme) and some SD-related institutes (e.g., environmental engineering institute), but no SD-focused study programme. Furthermore, there is some SD-related research (e.g., sustainable management research group) and a few campus sustainability projects, but less outreach and synergies among stakeholders. SD is included in the university's *strategy*, but there are no clear steps and indicators to measure the progress. The interviewee felt that this would be important because, at some point, "you want to enjoy the results" and "look at this 25-year history, how long can you stay in this beginning and vision phase?"

In general, the implementation process can be described as a *bottom-up process*. Although the leadership team welcomes sustainability ideas and initiatives, it does not actively support their implementation. Important changes took place when Lithuania became independent in 1990. In particular, when Lithuania joined the Bologna Process in 1999, European ideas and funds brought in knowledge from international partners, especially from Denmark, Finland, and Norway, and even influenced the university's structure. Within the university, integration of sustainability started with a small group of dedicated researchers from the environmental engineering department, which implemented first environmental projects on campus; 15 years later initiatives were rather isolated, with no cooperation or even knowledge about one another.

Then, in 2015–2016, a new vice-rector of studies joined the leadership team and redefined the teaching and learning vision, introducing a focus on sustainability-relevant knowledge and critical thinking. From September 2019, every student had to enrol either in a course offered by the philosophy department or in a newly launched SD course (designed from 2016 to 2019). To develop the new SD course, an engaged professor connected academics from different disciplines and incentivised interdisciplinary discussions around (E)SD. This *collaboration* was important to connect isolated projects and academics from different faculties. The introduction of the UN Global Compact guidelines (https://www.unglobalcompact.org/; initiated by the same professor), for which existing sustainability initiatives at the university had to be collected, further supported communication among different groups. The interviewee emphasised that at this time *they missed momentum* to further steer a whole-institution approach due to missing top-level commitment. The rector is not a barrier, he encourages discussions, but there are *no institutionalised positions* for the implementation, coordination, and communication of SD; nor is any support available, such as faculty training. "The institution is talking rather than acting [. . .], SD is not a top priority", but more of a horizontal value, with technology and digitalisation being prioritised.

The interviewee described the *lack of sustainability awareness* as a major barrier.

> "You can hide with arguments such as, not enough people, not enough resources; but no. . . it is [because there is] not enough understanding".
>
> "Deep changes require deep thinking/learning".

Disciplinary barriers contribute to people not understanding why they should teach or learn something about SD. The interviewee explained that about 50% of faculty staff – including some of those who now hold formal SD-related positions like head of a faculty or centre – thought SD is more a "nice label", but for the other half it is a serious issue anchored in their values. To develop a *shared understanding of SD* and to learn from each other, the team of the interviewee (a professor) met every week for a long time to discuss (E)SD topics, until they reached a shared understanding. "With this basis, if you push a little bit more, you can have excellent results, but sometimes people are tired of pushing . . . you only have a certain amount of energy . . . I said for myself: Is this for me or for my organisation? [. . .] But sometimes I feel a little bit too tired to be responsible for everything, to push all the time". Further support has been coming from the student union, which has fuelled many HESD activities.

The funding system is an external influence. In Lithuania, funding SD does not play a great role; however, in the European funding system, SD is nearly everywhere, which makes researchers think about how their research relates to SD topics.

For the future, an SD programme is planned. However, this would require capacity and action from the whole university community. In general, the interviewee states that more systemic changes are needed, as people tend to act according to what the system requires.

Daugavpils University (DU)

"It is a luxury to have a charismatic leader".

At DU the integration of HESD can be described as being between the *bolt-on* and *build-in* stage. Sustainability issues and ESD are not implemented in a formal vision or strategy, nor are they strongly supported by the top-level leadership. However, a group of sustainability enthusiasts have succeeded in ensuring that many courses at all levels (BA/MA/PhD) have environmental education (EE) or ESD integrated as cross-curricular issues, especially at the Faculty of Education and Management. (E)SD is also a topic in research; some informal campus sustainability projects exist, but there are few outreach activities.

The discussion about integrating sustainability started 20 years ago and can be described as a *bottom-up process* and "a matter of one individual who thought about these issues". At the end of the ESD decade in 2013, a head of a faculty managed to establish a UNESCO chair on teacher education and continuing education, with ESD as a focus. In a first phase, the head of the UNESCO chair started to develop a theoretical *understanding of (E)SD* issues through different activities. These were more informal conversations by which she slowly tried to engage more people in thinking about (E)SD issues by 1) reviewing research findings on good practices in Scandinavia, Europe, and beyond (also through being engaged in networks); 2) encouraging team members to visit and participate in international conferences and learning from HEIs in other cultural contexts; and 3) inviting every team member to think about their research topic through the lens of sustainability. These efforts were supported by the former science/study rector through financial resources for attending international conferences. Further support resulted from a general reorientation of teacher education in Latvia, which became more competence oriented.

After this, a second phase started, during which an understanding of (E)SD that relates to the Latvian cultural context was developed. The UNESCO chair head tried to engage staff members inside and outside her own faculty in discussions about (E)SD. As a result, SD was conceptualised by the group using the overlapping dimensions (circles) of economic, social, and environmental sustainability, but with culture as the core dimension. Meanwhile, different perceptions of ESD started circulating and an increasing number of people engaged in thinking about ESD. The group of engaged researchers around the UNESCO chair now understand ESD as *education as sustainability*, with emancipatory and transformative learning at its core.

A key driver to integrate ESD in teaching activities of further faculties are SD-related international research projects that are supported by DU's increasing internalisation policy. For the interviewee, lack of time resources due to a high amount of teaching hours was thought to be a key barrier to stronger integration. By contrast, working with an engaged and collaborative group maintained her own enthusiasm despite time pressure.

It is important to acknowledge the history of the HEI during this process: until 1991 it worked under a totalitarian regime. Changing the thinking of the 40+ generation has proved hard. Furthermore, the interviewee described the nature of Latvian people as being

introverted: they listen to other experiences and reflect a lot, meaning it takes time for new initiatives to line up with thinking and for actions to be finally adopted.

For the future, the group around the UNESCO chair is striving for more formalisation of HESD integration, with a focus on bringing transdisciplinary projects into action to foster transformative learning.

Common key enablers and the role of networks and leadership

In general, the stories illuminate and bring to life what has been described in previous work on common key drivers and barriers to HESD (Velazquez, Munguia, and Sanchez 2005). The stories presented also correspond well to integration patterns (highlighted in the following in italics) that were recently explored in a meta-analysis (Weiss, Barth, and von Wehrden 2021).

Thus, the cases of the University of the Basque Country and Hasselt University fit into the implementation pattern *"collaborative paradigm change"* and illustrate what power there is in participatory processes and strategically led change processes to achieve a deep integration in a short time. Key drivers are a participatory process in which bottom-up and top-down forces complement each other (see also Trechsel et al. 2018) and where people collaborate by discussing understandings of SD and ESD. Through this they develop a shared vision and strategy with clearly defined indicators. Furthermore, good communication as well as support (i.e., financial/time/human resources, professional development) are important key drivers for achieving a high level of sustainability integration. The attitude towards (E)SD of individuals in top leadership positions and a possible change in these positions are further key drivers. Externally, social pressure, political support, accreditation agencies, and networks help steer the implementation of sustainability in universities.

By comparison, the other cases have fewer key drivers in place. The Vienna University of Economics and Business falls under *"top-down mandated institutional change"*, mainly missing a participatory and coordinated process to engage the whole campus community in a reflective learning process on HESD. Daugavpils University and the Kaunas University of Technology are between *"bottom-up institutional change"* and *"isolated initiatives"*, mainly due to missing internal prioritisation and no real living up to formal statements, a lack of strong top leadership support, and missing dedicated resources.

Something that has not been explicitly researched so far in the context of these processes are the different cultures in which integration happens and which can heavily influence how familiar people are with participating in decision-making processes. Moreover, balancing personal resources (well-being, energy, etc.) while steering or even fighting for more sustainability at one's institution was a challenge explicitly brought up by three interviewees.

Role of networks: learning from the past

Networks were perceived by all interviewees as a strong driver for steering HESD processes at their institution. Different types of networks can be distinguished: national disciplinary networks and associations, regional networks (like the Baltic and Black Sea Consortium or the Baltic University Programme), and European networks (like the CA), or university-internal networks. In Table 9.7.2, the usefulness of networks as highlighted by the interviewees is illustrated.

However, for the interviewees some networks seemed to be more helpful than others. This is especially the case, they argued, when the networks are active, not very formal, and

Table 9.7.2 Usefulness of networks for individuals engaging in steering HESD at their HEIs.

Purpose of network	*Key elements gained*	*Example quote*
Learning	– Information, conferences – Material (good practices) that can be used in teaching, and seminars or workshops – New ideas presented, or new ideas that can be developed collaboratively	"It really speeds up learning of all people in the network [. . .] I feel better equipped". (Int. 2)
Empowerment and motivation	– Relationships, motivation and encouragement by seeing that other people have similar values and shared passions – Trust	"This motivation is needed for everybody"; "If you want to be strong and go long, go together". (Int. 4)
Partnerships	– Co-organization of course programmes, development of projects (research and teaching) • Less competition in international networks • Informal structure (especially for internal, non-formalized networks to cope with internal bureaucracy)	"It is important to not just be a member, but to be an active member and to involve decision-making people into the networking". (Int. 4)
Credibility	– Membership in a well-recognized network creates internal credibility in own HEI	"If I were not a member of the COPERNICUS Alliance, I don't think that I would have achieved as much as I achieved now. And it is because the COPERNICUS Alliance gives credibility to the professors who are involved in it". (Int. 2)

welcome new people and perspectives and offer space for personal relationships to evolve, share, and co-create knowledge or projects. To make networks even more beneficial, the interviewees wish that 1) networks would increase their visibility to reach more people with different backgrounds at different career stages (e.g., early-career researchers) through better-targeted communication; 2) more persons holding formal leadership positions would participate in networks; and 3) more implementation tools, good practices, and teaching/learning material for academics for a diversity of disciplines were openly available at any time. Indeed, in most cases there is little time, not enough examples, and an expert is missing as a contrast with one's own ideas, e.g., regarding ESD in mathematics.

Role of leadership: reflections from the interviewees

The interviewees portrayed in this chapter all took unique (personal) leadership roles in the process of mainstreaming sustainability at their institution. As we need a new perspective on leadership (Ferdig 2007), we share reflections offered by the interviewees about the development of their own leadership skills (Figure 9.7.2). What stands out is that every

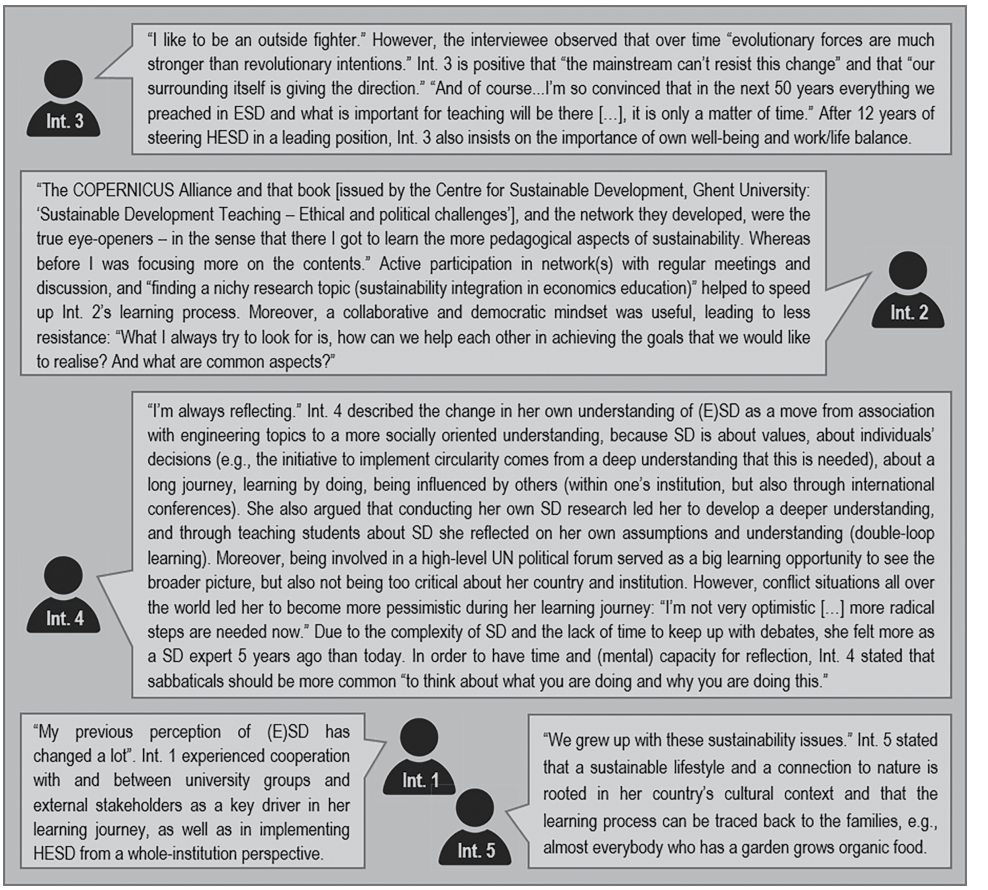

Figure 9.7.2 Role of leadership – Reflections from the interviewees.

learning journey was individual; however, the speakers all shared the same goal, committed to it, and worked collaboratively in their HEI to reach it.

Conclusion

So what can we now do to advance HESD at our own universities? In particular, how can we become the authors of our own leadership stories? The described integration processes invite the reader to reflect on key factors to accelerate integration; they also encourage readers to reflect on what can be done to achieve a paradigm shift and help create transformative learning settings for the deeper integration of ESD we need. In the analysis of our findings, we refer to a meta-study that elucidates which combinations of key influences lead to deeper implementation (Weiss 2021); to our knowledge, this is the first meta-study of the kind, but we expect that more are in the making. Research will thus definitely continue.

What is now urgently needed is action to increase the pace of mainstreaming sustainability in higher education (UNESCO 2021). Often, the final word in an article is reserved for the authors. Since our intention is to emphasise the importance of personal leadership, collaborative and collective working, and joint learning, we explicitly leave the closing words

to the interviewees, who share their personal, experience-based suggestions regarding how to drive HESD:

- Start by detecting who is doing what regarding HESD in your own institution and start to understand the culture.
- Find persons with a common interest in your HEI to maintain enthusiasm and support each other; establish relationships and have regular discussions to develop ideas.
- Create opportunities in which everybody can take part and show their talents.
- Find wordings that are understandable to different people and steer conversations on different understandings. You may want to start with easily understandable topics and go deeper at a later point.
- Cater to resistance by focusing on common elements.
- Find ways of supporting people's growth by trying to understand different perspectives, perceived barriers, and finding a solution with them (e.g., if somebody does not feel comfortable with incorporating SD issues into a programme or course, maybe someone else with such a competence can join in: for example, with team-teaching).
- Address and involve persons who hold formal leadership positions. Ideally vote for a president who is equipped with sustainability competencies.
- Engage in sustainability research, as you will gain more credibility and impact in your HEIs.
- Introduce as many students as possible to at least ideas of SD and take them on a transformative learning journey in which they can reflect on their attitude toward SD. Their own interpersonal competency to involve other people will be key to doing this.
- Don't just reflect, but act: tiny, small steps are important and can accumulate to change.
- At some point, you may want to challenge your comfort zone and to take on a (formal or informal) leadership position.

With these insights, we wish to motivate future champions to take on leadership to steer HESD, even if they do not hold a formal leadership position. And with this collaborative effort we hope to increase the quality and reach of HESD.

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