Part III

// Embarking on your Sustainability Journey –

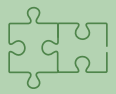
Overview of the Implementation Process (Inward-out)

GUIDING QUESTIONS

STEP 1 Shared Vision	STEP 2 Mapping SD Activities	STEP 3 Linking Activities to SDG Targets	STEP 4 Mapping Governance & Skills	STEP 5 Mapping Regional Challenges	STEP 6 Alignment	STEP 7 Gap-Analysis
• What does sustainability mean to us? • To which transformation modus (-» Table 14) can our subsystems, such as administration and different faculties, be assigned? Subsystems can be assigned to different modes. • Is SD already part of our strategic orientation? • Does our institution's vision refer to SD? And if so, where and how? • Do we already implicitly refer to SDGs in our value statements? And if so, which SDGs are we referring to? • Who are our trailblazers? In which areas do we find them? • Do our internal stakeholders discuss specific SD-related topics? If so,	• What SD activities are we already conducting in our core areas (education, research, outreach & partnering, entrepreneurial activities, governance and campus operations)? • Can these activities be grouped into thematic focus areas?	• Which of our ongoing SD activities contribute to what SDG target(s)? • Which SDG target(s) are reoccurring and thus could function as focal areas?	**Capacities** • Which capacities are most important for achieving the identified SDG target(s)? • Do we already possess this capacity, or do we have to build it/develop it further? • What capacities do we need to develop to move towards our institutional vision? **Governance** • What are our current governing structures (offices, networks, etc.)? • Who has the right to make decisions? Who is allowed to participate in decision-making processes? • Who controls what activities? Is this transparent?	• What challenges does our region face today and in future (next 20 years)? • Are regional stakeholders aware of the regional challenges and intend to act to overcome these (problem ownership)? • Are these discussed among or supported by the regional stakeholders? • Which targets help to minimise risks and challenges in our region? • How is the societal climate towards SD?	• What are our key findings from the previous steps? • Can we group these in separate 'blocks', for example, using the SDS4HEI framework model? • What do we want to visualise for what purpose? • What form of visualisation is easy for us to realise?	• Do our focus areas (clustered targets in current actions) align with the main regional challenges? • Do important regional SDG targets exist that we are not addressing (gaps)? If so, what are these? • Do we have the capacity to address these? • If so, what are possible new/modified actions/measures in our core areas addressing or contributing to these targets? • Are we aware of any important target(s) that the region is not yet aware of and that we need to communicate? • How can your actions go beyond your region

STEP 1 Shared Vision	STEP 2 Mapping SD Activities	STEP 3 Linking Activities to SDG Targets	STEP 4 Mapping Governance & Skills	STEP 5 Mapping Regional Challenges	STEP 6 Alignment	STEP 7 Gap-Analysis
what issues are currently discussed? • How do we envisage to orchestrate the process of SD implementation? • What is the culture like in our region? What are the values, beliefs and attitudes towards SD? • What is it that we want to sustain in supporting best quality of live in our region? • What is our shared vision of SD? What does a concrete image of a sustainable HEI look like?			• How is SD embedded in your organisation's rules and regulations? • Have SD-related incentive systems been established? • Who are the actors currently involved in SD? • To what extent do the existing governance structures and modes of governing facilitate or impede SD?			and positively affect a global scale
A shared vision is the prerequisite for all strategic SD activities. It entails values, beliefs and narratives concerning SD and thus gives meaning to actions and motivates stakeholders to become active		Instead of referring to SDGs, take a closer look at the sub-targets of the respective SDGs. Connecting these targets to regional challenges and potentials will make sustainability goals more feasible.	**Capacities:** The framework helps you to identify the most relevant capacities to reach a certain SDG target in a specific implementation area. By analysing the different variables that make up a capacity, you can figure out what your HEI needs to work on to strengthen this capacity.	Although climate change is a global challenge, regional efforts can make the SDGs more feasible. The combination of sustainability and regional development can facilitate sustainable ecosystems.	The process of getting there is more important than the visualisation itself, as it entails thoughtful reflection on the insights gained. Nevertheless, visualisations facilitate internal and external communication.	The Gap Analysis is no means to its end but an instrument to identify areas of improvement. Forasmuch, it should cover all core functions of your HEI while accounting for the regional context.

NOTE(S)

						
STEP 1 Shared Vision	**STEP 2** Mapping SD Activities	**STEP 3** Linking Activities to SDG Targets	**STEP 4** Mapping Governance & Skills	**STEP 5** Mapping Regional Challenges	**STEP 6** Alignment	**STEP 7** Gap-Analysis
			Governance: Governance structures and modes of governing moderate transformative actions at HEIs. They must be flexible and open enough to allow for change while offering stability.			In doing so, the focus is not on identifying every gap but pinpointing those your organisation can meaningfully contribute to narrowing-

The next step helps to identify strategic and operational focus areas by mapping existing activities in the core areas of your HEI. Following the recommendations of the Guide to Sustainable Higher Education Development (see Rat für nachhaltige Entwicklung), HEIs can use the **comply-or-explain-principle** to discuss why they choose to implement certain SD actions (comply) or plausibly explain why they choose against them (explain). This method might be chosen to account for the different types of HEIs.

Mapping SD Activities in your HEI

—» What SD activities are we already conducting in our core areas (education, research, outreach & partnering, entrepreneurial activities, governance and campus operations)?

—» Can these activities be grouped in thematic focus areas?

Step 2.
Mapping SD Activities

TOOLS

Tools for Identifying SD Activities

- **SLS –Sustainable Leadership Scoreboard** (EAUC) (https://www.eauc.org.uk/sustainability_leadership_scorecard)
- **SDG Actions Platform** (United Nations) (https://sdgs.un.org/partnerships)
- **RSP – Rounder Sense of Purpose** (Erasmus+) (https://aroundersenseofpurpose.eu/sdgs)

Tool 3.
Identifying SD Activities

The following tables assist you in getting an overview of the SD activities in each core area. At first, activities in the core areas should be categorised and briefly described, following the given example. The provided categories are illustrative focal points for potential sustainable development measures, which can be supplemented by the focus areas specific to your HEI.

Then, you can assign a certain value to the specific activities, showing how strongly the activity influences the four sustainability dimensions (social, economic, ecological, and cultural), ranging from strong positive (+++), medium positive (++), low positive impact (+) to no impact (0) and on the other side of the scale from low negative (-), medium negative (--) and strong negative impact (---). Additionally, the activity can either relate or not relate to the shared institutional vision (yes/no) and contribute to particular SDG targets. The SD activities are most likely aimed at several different targets. Therefore, Step 6 will help you to compare your HEI's efforts with regional challenges and potentials to make an informed decision on the most important targets.

2.1.1 SD in Education

Qualified students aware of sustainable futures are our most important output.

To effectively address the SDGs, HEIs need to equip professionals, students and citizens with the **skills, knowledge, and mindsets to tackle the complex SD challenges** articulated by the SDGs through whichever career or life path they take. Initiatives can be introduced through educational programs, where sustainability is integrated as a didactic concept.

Activities in 'Education' should aim at (1) developing a general understanding of SD and the SDGs; (2) promoting cross-cutting skills to make sense of complex challenges; (3) providing specific knowledge and skills for how professions can contribute to the SDGs; (4) creating an entrepreneurial mindset to start a green business or implement green knowledge/competences into further business ideas, as well as (5) a mindset to contribute to social change. To that end, students should cultivate critical and creative thinking skills, engage in authentic interdisciplinary learning activities and develop a value system that emphasises responsibility to self, others and the planet.

Table 15.
Checklist "SD in Education"

Our Activities	Social	Economic	Ecological	Cultural	In line with vision	SDG targets addressed
SD as part of the curriculum						
Example IMT-BS: Social Innovation Game	++	+++	+++	++	Yes	All of the SDGs and their targets (indirectly); SDG4 (Quality Education), SDG9 (Industry, Innovation, & Infrastructure, SDG10 Reduced Inequalities, SDG11 Sustainable Cities & Communities, SDG17 (Partnerships) (directly
Extracurricular Activities						
Employability						
Entrepreneurial + Sustainable Skills						

TOOLS

Tools for Integrating SD in Education

- **7 Steps Series** (Plymouth University) (https://www.plymouth.ac.uk/about-us/teaching-and-learning/guidance-and-resources/7-step-series)
- **17 Rooms** (The Brookings Institute) (https://www.brookings.edu/projects/17-rooms/)
- **Education for SD Goals – Learning Objectives** (UNESCO) (https://unesdoc.unesco.org/ark:/48223/pf0000247444.locale=en)
- **The ESD for 2030 toolbox** (UNSECO) (https://en.unesco.org/themes/education-sustainable-development/toolbox/implementation - esd-impl-42)
- **ISSUE** – Innovative Solutions for Sustainability in Education (Erasmus+ / Cologne Business School) (https://www.issue-project.eu/sdg-toolbox)

2.1.2 SD in Research

Through research, we create new insights and knowledge for SD and SDGs.

A central concern is finding a balance between embedding sustainability and upholding the autonomy of research and teaching. With growing demands for strategic implementation of SD, HEIs are recommended to **foster collaborations for cross-cutting research on and with SD.** Collaboration should be strengthened with different research institutions, disciplines (interdisciplinary), cities, companies, and citizens (transdisciplinary). Research should focus on solutions for real-life challenges, innovations and ideas for (global actions). Sustainability sciences is a field of research that explores the bridge between the world as it is and the world as it should be. As there is no definitive knowledge about SD, guiding questions for implementing actions in different academic disciplines could be:

What entry points to SD does an academic discipline or research topic possess?

What impact does my research have on SD and regional development?

Which solutions to regional and SDG-related challenges does it offer?

Table 16.
Checklist "SD in Research"

Our Activities	Social	Economic	Ecological	Cultural	In line with vision	SDG targets addressed
Research for practical solutions						
Example WH: Research Challenge Sustainability	+	++	+++	+	No	SDG 13.3 Building knowledge and capacity to meet climate change. A (Special and Differential Treatment for Developing Countries)
Responsible Research and Innovation (RRI) / Research with SD						
Transdisciplinary Collaborations						
Participatory Research						

2.1.3 SD in Campus Operations

The SDGs are still a very abstract concept. HEIs must act as role models by adopting sustainable practices and turning knowledge into concrete action.

Strategies in 'Campus Operations' include resource management, mobility and greenhouse gas emissions, finances, and green buildings. On campus, sustainable practices can be experimented with and advocated for, and their positive impacts can be readily observed, as they are the most straightforward to quantify. By implementing measures that, for example, make the campus more accessible (social) or reduce energy consumption (ecological), HEIs have an immediate effect on the dimensions of sustainability. By **'leading by example'**, providing a practical learning ground for innovations, and transmitting values and beliefs through the 'hidden curriculum', on-campus measures are the most relevant for the 'cultural dimension'. Sustainable campus experiences could enable the discussion on global societal challenges, foster ecological literacy, and eventually lead to changed values and behaviours.

As institutional change mostly depends on establishing new routines, **cultivating a culture of sustainability within the campus community has to become a cornerstone** of the HEIs' efforts. Everett (2008: 243) proposes that internal stakeholders must develop an understanding of the "university's metabolism", for example, through campus sustainability praxis, in which on-campus experiential learning in interdisciplinary groups would lead to institutional change.

Table 17.
Checklist "SD in Campus Operations"

Our Activities	Social	Economic	Ecological	Cultural	In line with vision	SDG targets addressed
Resource Management						
Example BUU: Waste management centre	0	0	+++	++	Yes	SDG 12.4 Responsible Management of Chemicals and Waste)
Mobility						
Campus Design						

Our Activities	Social	Economic	Ecological	Cultural	In line with vision	SDG targets addressed
Hidden Curriculum						
Economics & Finances						
Campus Practices						

Tools for Campus Operations

- **University's ecological footprint** (Erasmus+) (https://www.eusteps.eu/)

Tool 5.
Campus Operations

2.1.4 SD in Outreach & Partnering

We need to identify areas where stakeholders can make meaningful contributions to SD through their actions and expertise. Moreover, it's essential to ensure that innovations generate societal value.

Social responsibility is considered the foundation and objective of an excellent university. As part of their Third Mission, HEIs have begun to intensify internal stakeholder engagement, including students, staff, and leadership, and engage with public actors, such as governments, NGOs, schools, community organisations, and the private sector (e.g. companies). In doing so, HEIs introduced **different formats of transdisciplinary collaboration,** including 'partnership platforms', event series and hubs for collaborative activities. They work with businesses and the wide community in innovation-oriented projects, are part of sustainability networks and enable knowledge exchange to

face global challenges. Stronger cooperation with external stakeholders on SD could tackle **how companies and organisations can be motivated to join the path.**

A **stakeholder-centred strategy** could use (1) an effective explanation of innovations, coupled with (2) the prompt demonstration of visible successes, (3) complemented by consistent communication, and (4) reinforcing achievements over time.

Table 18.
Checklist "SD in Outreach & Partnering"

Our Activities	Social	Economic	Ecological	Cultural	In line with vision	SDG targets addressed
Transdisciplinary Collaborations						
Project with local businesses on how to reduce water waste in car washes	0	+++	+++	+	Yes	SDG 6.3. By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.
Citizen Science Formats						
Public Welfare						
Qualification Offerings						
Network Activities						

2.1.5 SD and Entrepreneurial Activities

We can open new perspectives for business ideas and professions. By teaching entrepreneurial and sustainable skills, we ensure employability.

HEIs assist the great transformation and regional development through creating new knowledge, innovation and teaching new skills. By combining sustainable skills with entrepreneurial skills in entrepreneurial education, **future leaders** gain more sustainable perspectives on green business practices and new professions can be created. Additionally, HEIs can align their **sustainability-oriented entrepreneurial support.** One challenge, however, is to ensure that university spin-offs do not remain small but can have a long-term impact on the region.

Table 19.
Checklist 'SD in Entrepreneurial Activities'

Our Activities	Social	Economic	Ecological	Cultural	In line with vision	SDG targets addressed
Entrepreneurial Support						
Impact Start-up Hub	++	+++	+++	++	Yes	SDG Target 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services
Equal Opportunities						
Incentive Systems						
Regional Cooperation						

2.1.6 Governing SD

We can structurally embed SD in our institution through rules, regulations, incentive systems and (new) modes of governing.

The governance and modes of governing largely impact the social and cultural dimension of SD and the successful implementation of SD. It refers to how responsibilities and power are distributed in the institution. Participation, equal opportunities, qualifications and public welfare become important factors for SD and are part of the social dimension.

While leadership and motivated teaching staff play a vital role, SD still needs to be integrated into everyday practices within HEIs but rather perceived as a task requiring extra time, attention and financial resources. Therefore, it is essential to recognise and give leeway for SD efforts. A significant point to consider is financing as a motivator for HEIs aiming at sustainability. This linkage can serve as a powerful lever, mirroring the incentive system for SD found in the business sector.

Specific structures and dedicated staff, for example, sustainability officers, are essential to make SD visible, communicate actions and motivate stakeholders to participate. Additionally, increasing visible activities to set an exemplary standard could be highly beneficial. HEIs need participatory governance structures dedicated to SD, such as a head of the sustainability officer or green offices which actively engage students. These governance structures would act as the **interface between SD networks, regional stakeholders and the university, communicate SD** endeavours, including solutions implemented and collect knowledge and ideas for transformative processes.

Effectively governing SD at HEIs is heavily contingent on obtaining legitimacy and widespread acceptance. In other words, many stakeholders must reach a consensus and fully commit to embracing the comprehensive institution-wide approach.
Concerning top-down vs. participatory procedures within the HEI, using incentive systems is frequently the only viable approach, as there is currently no obligation to meet key performance indicators (KPIs) as mandated by policies. Accordingly, there is a need for more external incentives, such as funding next to internal incentives, such as motivated trailblazers or reduced teaching obligations in favour of alternative forms of teaching and researching sustainability. SD could be implemented in recruiting by integrating goal-setting conversations when hiring new educators. Financial incentives, particularly potential legislative support, can greatly influence universities' sustainable activities.

Our Activities	Social	Economic	Ecological	Cultural	In line with vision	SDG targets addressed
Participatory Structures						
New Governance Structures						
Hiring sustainability manager	++	0	++	+++		SDG target 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
New Modes of Governing						
Incentive Systems (internal/external)						
Rules, Regulations & Policy						

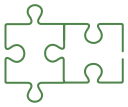
Table 20.
Checklist 'Governing SD'

The SD measures described in the core areas will address multiple SDG targets simultaneously. There may be tensions and conflicts between these targets, but also synergies might be detected. As a next step, you should limit yourself to a few targets that can be implemented realistically and that align with the institutional vision. After this step, focus areas might manifest themselves in reoccurring SDG targets.

Linking Activities to SDG Targets

—» Which of our ongoing SD activities contribute to what SDG target(s)?

—» Which SDG target(s) are reoccurring and thus could function as focal areas?



Step 3
Linking Activities to SDG Targets