Capacity building guide and resources

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D3.8

KMOP

Deliverable information

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0.4	11/03/2025	KMOP	Feedback integration and finalisation

Summary of the Project

AELIA - Advancing Education
for a Sustainable and Inclusive
GreenTransition

The AELIA project responds to the call for a more sustainable world, highlighted by the COVID-19 pandemic effects. Aligned with the Sustainable Growth Strategy 2021 and the European Green Deal, AELIA aims to equip citizens with the skills for a green transition through innovative education. This comprehensive initiative brings together formal and non-formal education stakeholders, businesses, civil society, and the public sector.

The project AELIA is co-funded by the European Education and Culture Executive Agency of the European Commission (Partnerships for Innovation – Forward Looking Projects) and the Erasmus+ program. It is implemented by 8 partners and 1 associated partner in Implemented in Austria, Cyprus, Greece, Romania and Serbia.

Key Components:

1. INNOVATION: AELIA pioneers sustainable teaching methods using digital tools and non-traditional techniques, tested in four countries, with potential for broader adoption. It also supports sustainability planning in education systems.

2. **COOPERATION:** Diverse stakeholders collaborate with expert guidance to ensure project success through workshops and strategic planning.

3. **IMPACT:** AELIA empowers educators to teach sustainability and produces a guide for sustainability plans. A White Paper aids policymakers globally.

Objectives:

• **Promote** sustainability in all education sectors through tested guidelines for sustainability plans.

• **Support** educational institutions' leaders in implementing sustainability plans through capacity-building.

• **Enhance** educational resources with inclusive stakeholder input.

• **Empower** educators to integrate sustainable development and green practices.

• **Empower** citizens to take climate action through knowledge and skills.

• **Promote** education for sustainable development and enhance policy learning through transnational cooperation.
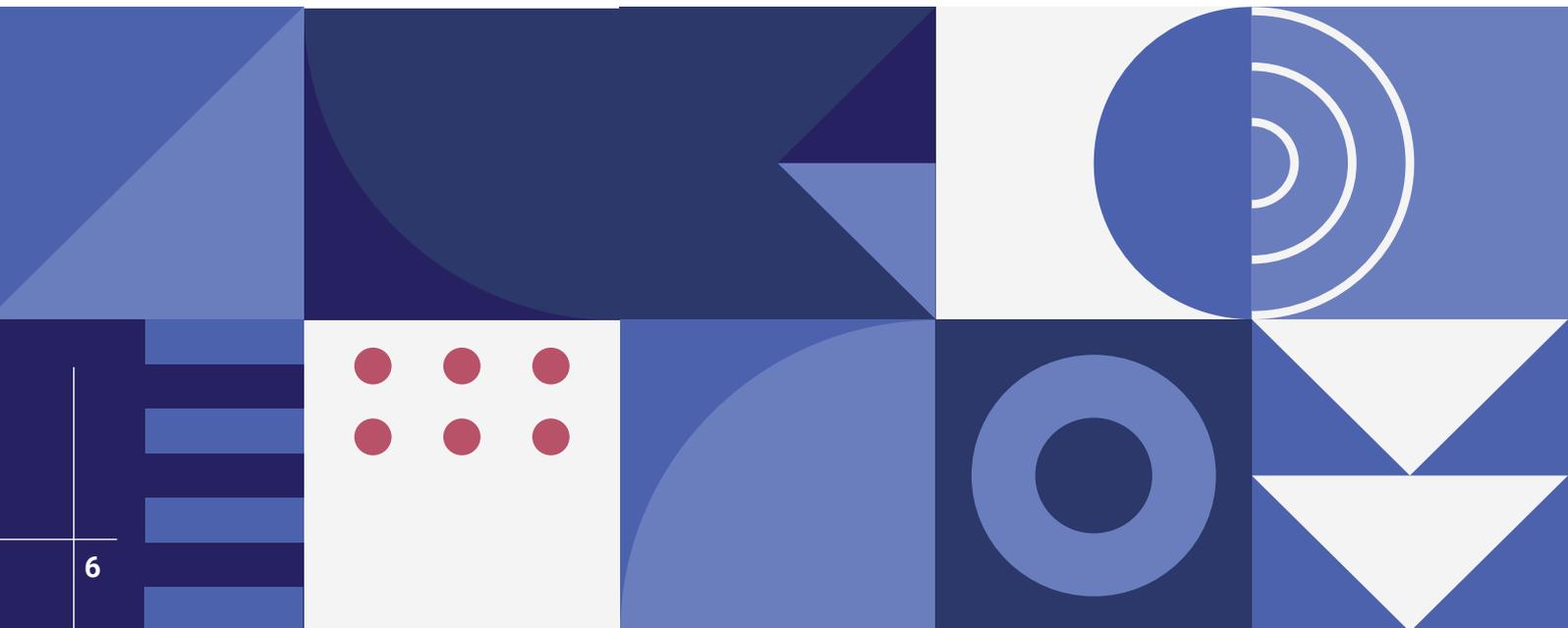
Main Results:

AELIA's results include a guide to promote Education for Sustainable Development, a co-designed educational framework with resources, webinars, and a white paper on education for sustainable development. AELIA leads the way towards a sustainable and inclusive green transition.

Contents

List of abbreviations

Acronym	Description
ESD	Education for Sustainable Development
SDG	Sustainable Development Goals
CoE	Council of Europe
EU	European Union
EEA	European Education Area
RFCDC	Reference Framework of Competences for Democratic Culture
NA	Needs Assessment
EDI	Equality/Equity, Diversity and Inclusion
GEP	Gender Equality Plan
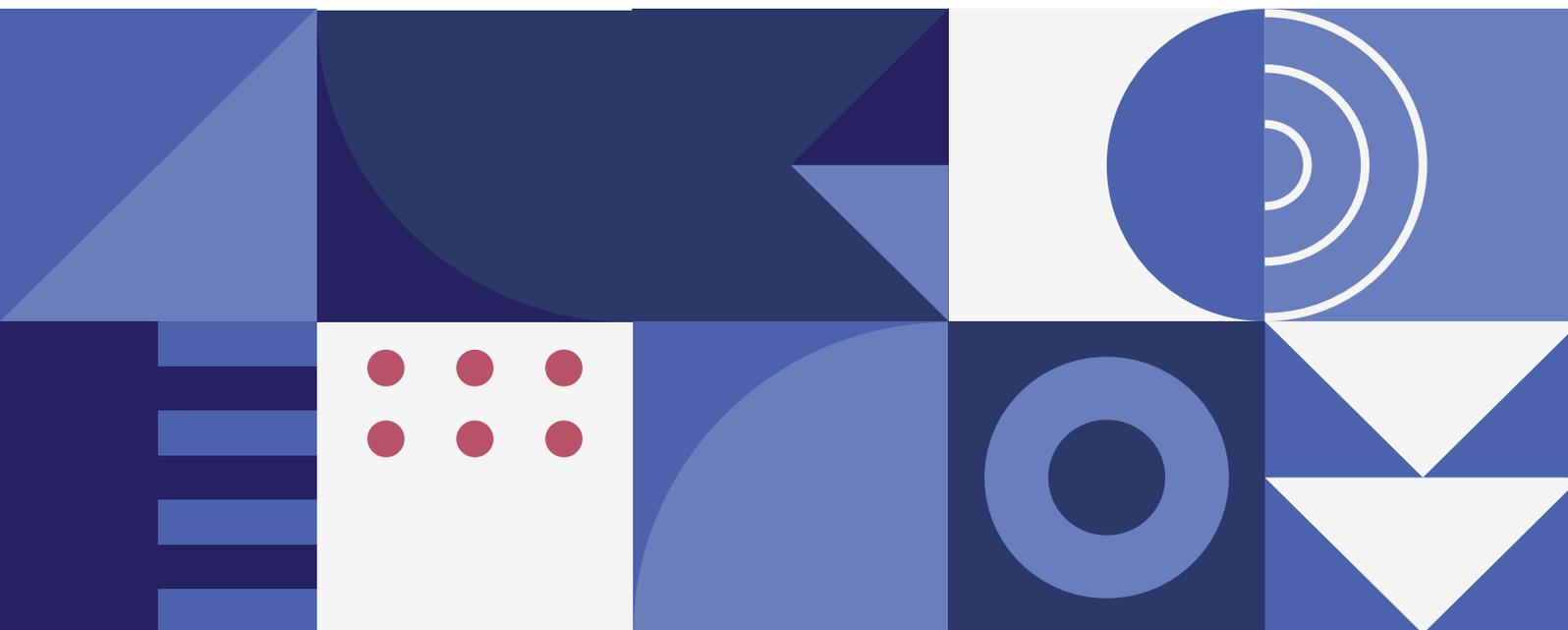
Introduction

About the guide

Context

This Guide has been prepared in the framework of the EU funded AELIA project which aims to promote the integration of Education for Sustainable Development (ESD) to educational institutions. The project partnership has already created several outputs including a Guide for sustainability (ESD) plan for educational organisations (**AELIA, 2024**). Other outputs, including a MOOC and previous reports, are accessible **here**. The value that the specific guide brings, compared to the previous ones, is primarily connected to its practical component. The current guide supplements the more theoretical aspects that AELIA's Guide for ESD plans had provided. As such, it entails a section which is dedicated to providing practical resources for educational leaders, whereas it also builds upon the initial guide by summarising or referring to key information that are relevant for the target group.

Objective, methods and limitations

This guide's primary goal is to assist individuals who identify themselves as educational leaders at various levels of formal or non-formal education, in promoting sustainability principles via a holistic approach to ESD. It is intended mostly for educational leaders but it can also be a useful reference point for community and policy stakeholders.

The guide has been prepared with the contribution of the AELIA consortium, which based on previous research conducted during the project has created the necessary input for the current document. As such, specific limitations also apply. Firstly, it is important to note that the research and data presented here are drawn exclusively from the consortium countries—Austria, Greece, Cyprus, Romania, and Serbia. As a result, the proposed activities and resources are mostly relevant to the educational contexts of these countries. Nonetheless, this has been mitigated by conducting additional desk-research to identify resources and content of wider relevance.

Outline

The guide is broken down in three main sections. The first section provides a breakdown of ESD, along with its dimensions and importance. The next section focuses on the preparation and implementation of ESD initiatives in educational institutions; it emphasises components such as the coordination team, challenges and mitigation measures, vision and mission, practical considerations, feedback, communication and monitoring and evaluation. The final section provides references and resources — best practices, videos, and infographics — that they may be utilised to support the educational leaders.

Understanding and defining ESD

Education for Sustainable Development (ESD) has several definitions depending on the actor, space and time that it is defined. Currently, it is officially defined by UNESCO (**2020: 8**) as a framework which *"empowers learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society empowering people of all genders, for present and future generations, while respecting cultural diversity"*. ESD is considered as part of the Sustainable Development Goals (SDG target 4.7) to be achieved until 2030, which are considered to form a program of sustainable and universal development (**UNESCO, n.d.**).

> You can find more information on each SDG **here** and explore country profiles along with visual data representation for their progress **here** and **here.**

Other relevant definitions are drawn from the Council of Europe (CoE) and the European Union (EU). CoE does not offer a precise definition of ESD; however, it highlights ESD's core objective: *"to equip learners with the competencies needed for individual and collective democratic action in support of a low-carbon transition, sustainability, and biodiversity preservation"* (**CoE, 2025**). It also emphasises integrating ESD within citizenship education, with a particular focus on democratic processes and human rights. As such, CoE has developed an initiative exploring the connection between ESD and the Reference Framework of Competences for Democratic Culture (RFCDC) and providing relevant guidance. The initiative positions the RFCDC as a unifying framework for teaching ESD. Additionally, CoE's Education Strategy 2024-2030 underscores inclusive and sustainable education as a priority within Pillar 1: "Renewing the Democratic & Civic Mission of Education". This pillar stresses inclusivity, sustainable practices, and effective partnerships at all education levels (**CoE, 2024**).

> You can explore more about the CoE's approach **here**.

The European Union (EU) and the European Education Area (EEA) do not explicitly define the term ESD; however, they utilise extensively the concept of "learning for the green transition and sustainable development," which aligns with the generally understood meaning of ESD (**EEA, 2022**). As such in its definition the EEA showcases learning for sustainable development as a transformative and interdisciplinary approach to learning that equips individuals with the "knowledge, skills, and attitudes necessary to contribute to a greener and more sustainable economy and society". The approach aims to go beyond mere awareness of the climate crisis, empowering learners to develop a sense of agency and take action for sustainability. The concept is further complemented by the notion of "GreenComp," the European competence framework on sustainability (**Bianchi et al., 2022**). This framework outlines four competence groups related to sustainability: embodying sustainability values, embracing complexity in sustainability, acting for sustainability, and envisioning sustainable futures (**EU Science Hub, n.d.**).

> You can explore more about the EU's approach to learning for green transition and sustainable development **here** and **here**.

To better understand the similarities among the definitions, the following table summarises some of their key elements. It focuses on common and recurring components and patterns deriving from the definitions, and provides a brief elaboration of each. The table is not a comparison between the definitions, rather a summation of the elements each brings.

Table 1 Key elements from definitions of ESD (UN, CoE, UN)

Key Element	Explanation from definitions
Empowerment of learners	Equipping learners with knowledge, skills, values, and attitudes to shape a sustainable future, promoting agency and actions.
Interdisciplinary learning	Emphasis on transformative, interdisciplinary approaches to address sustainability challenges and foster a sense of agency in learners. Linked to citizenship education, focusing on democratic processes, human rights.
Values and ethics	Incorporating sustainability values, cultural diversity, fairness to all, intergenerational responsibility and respect for democratic and civic principles.
Action for sustainability	Empowering learners to develop competencies to take action for sustainability, actively contributing to the green transition and democratic processes.
Focus on green transition	Learning as a transformative process to support the transition to a greener economy and society, underpinned by frameworks like GreenComp.
Inclusivity and partnerships	Prioritisation of inclusive education, sustainable practices, and partnerships across sectors and education levels, with a focus on equitable and collaborative approaches.
Institutional integration	Embedding of sustainability principles into curricula, teaching methods, policies, and practices at all levels, including connections to democratic and civic education.
Contextual approach	Recognition of local actions with global impacts; consideration of cultural diversity and regional contexts along with alignment of sustainability with broader societal objectives.
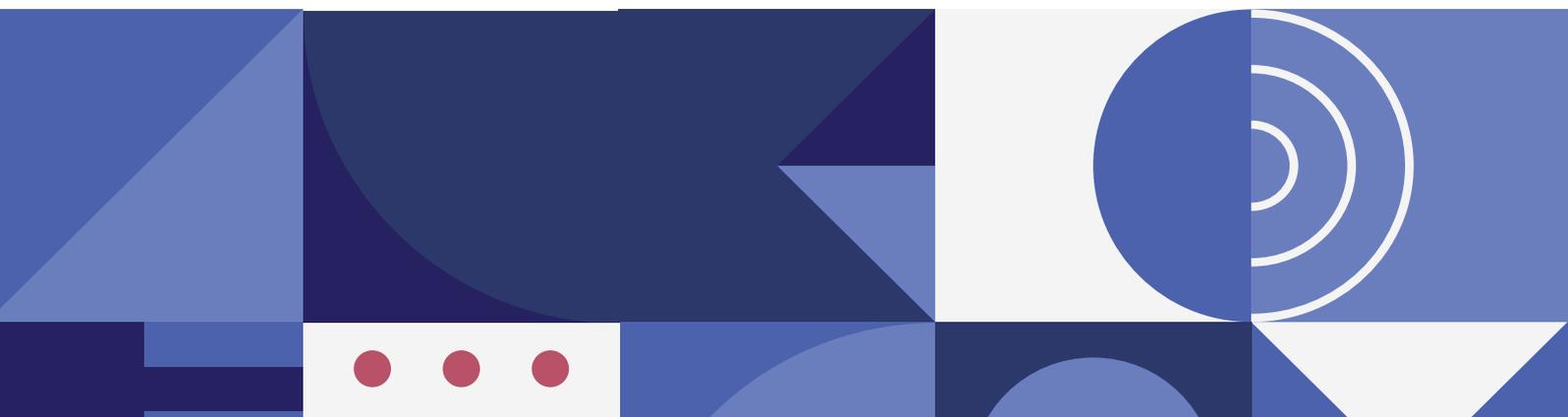
The next sub-section provides the definition of additional concepts that will be used throughout this guide.

Definitions

ESD Plan: A ESD plan is a clear, step-by-step roadmap that guides an educational institution in integrating sustainability into every part of its operations. It lays out specific goals, strategies, and actions to integrating sustainability into every part of its operations. It lays out specific goals, strategies, and actions to integrate sustainability into the curriculum, campus practices, and community engagement. The plan helps ensure that students gain the knowledge, skills, and values needed to address current and future sustainability challenges. (**UNESCO, 2021**).

Whole-Institution Approach: A whole-institution approach suggests the incorporation of sustainable development not only through the aspects of the curriculum, but also through an integrated management and governance of the institution, the application of a sustainability ethos, engagement of community and stakeholders, long-term planning, and sustainability monitoring and evaluation (**UNESCO-UNEVOC, 2017**).

Stakeholder: A stakeholder in education is any individual or group that is impacted by and has the ability and intent to influence the institution. According to UNESCO-UNEVOC, a stakeholder is anyone who can affect, be affected by, or believes they are affected by an institution's decisions or activities an indicative breakdown based adapted from the definition is provided below (**European School Education Platform, n.d.**; **UNESCO-UNEVOC, n.d.**):

Internal Stakeholders

- Administrative staff and management
- Technical staff
- Educators
- Learners

Intermediary Stakeholders

- Parents/Guardians
- Public authorities (national/regional/ local governance)
- Alumni

External Stakeholders

- Private sector and business entities
- Community organisations
- Media

Multi-Stakeholder Approach: The process of involving multiple stakeholders in ongoing planning and decision-making that is two way, conducted in good faith, responsive and results in Stakeholders having meaningful agency in decisions that impact them (**UNESCO-UNEVOC, n.d.**).

Dimensions and benefits of ESD

ESD incorporates three interconnected dimensions and culture as a cross-cutting theme:

social,	**environmental,**	**economic,** and	**cultural**

Each one influences the others in complex ways. UNESCO emphasises that an integrated approach should be taken recognising the holistic nature of ESD (**UNESCO, 2020**). For instance, climate change education touches upon both environmental and socio-economic aspects while social justice as a topic can be connected to inequalities in natural resource access, connecting all three dimensions. It is essential to leverage education to better understand and effectively address these challenges.

Planning for ESD

This chapter provides a working definition of an ESD plan, outlines its main components and highlights the importance and challenges of setting it up and implementing it. Additionally, it goes through practical components of ESD planning and integration such as: focal point designation, needs assessment and other relevant organisational frameworks and tools (e.g., in terms of operations, communication and monitoring). The main objective of this chapter is to present and outline practical considerations in terms of ESD plans for educational institutions at all levels.

The ESD Plan

Planning components

An ***ESD plan, in its simplest form, is a document which functions as a structured roadmap for educational institutions attempting to achieve sustainability***. It outlines **principles**, **objectives**, and **strategies** across its *curriculum*, *operations*, and *community engagement* efforts, ensuring learners acquire the **knowledge**, **skills**, **values**, and **mindsets** needed to help build a more sustainable future. An ESD plan has specific core components, highlighted in the next sections, which can better outline the different aspects involved.

It should be noted that the ESD planning and integration process is not necessarily linear, but it can be better understood through a cyclical approach where planning, implementation, monitoring and adaptation are the four key phases.

Figure 1 Cyclical approach of ESD planning and integration
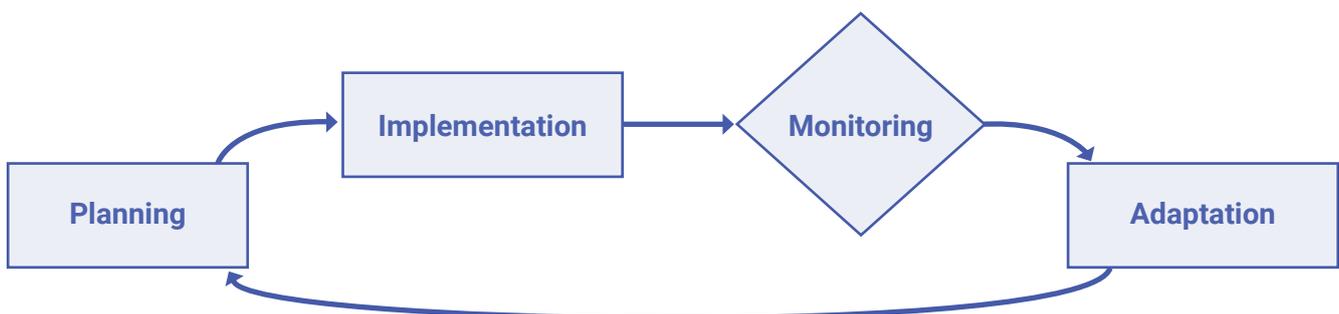
The core components of this approach are outlined in the following list:

1. **Defining** vision and mission;
2. **Understanding** institution's context and scope;
3. **Defining** ESD focal point and decision-making;
4. **Managing** internal and external stakeholders;
5. **Integrating** ESD in curricular and extra-curricular activities;
6. **Managing** resources;
7. **Ensuring** effective communication;
8. **Monitoring**, evaluating and managing risks.

It should be noted that these components should be considered and planned having also in mind two vertical categories which refer to:

(a) Accessibility, and (b) Inclusivity.

Last but not least, the ESD plan's core components should be time-bound in order to define clear milestones for the successful ESD integration process. But before further exploring the core components let's clarify the importance of ESD planning.

Why ESD planning is important?

The importance of creating, implementing and monitoring an ESD plan should not be mixed with the general importance of integrating ESD in an educational institution. The latter refers to the benefits for learners, educators, stakeholders and society overall when incorporating ESD in the institution. At the same time, the former concerns mostly the importance towards an educational institution itself for the successful implementation of an ESD strategy. Both are interconnected however they differ in terms of their scope; an ESD plan is a means towards achieving the goal of integrating ESD.

For educational institutions, developing a thorough sustainability plan is key for several reasons with some of them briefly outlined below (**Leal Filho et al., 2019**):

1. **Provides** a systematic approach to integration which creates a clear path towards the specific objectives that are being set by the educational institution, instead of being dependent on temporary ad-hoc initiatives;
2. **Supports** measurable progress based on the specific indicators it outlines;
3. **Aligns** all involved stakeholders (both internal and external) to its approach;
4. **Promotes** accountability and transparency of the educational institution which in its turn can improve the institution's image.

Challenges

When planning for a project, educational institutions may face numerous constraining factors and challenges (**Cebrián, 2022**). A helpful categorisation of the challenges, which is based on previous research steps conducted during the AELIA project, is the following:

1. **Systemic-level**: referring to the educational system itself at its organisational level and the general societal attitudes;

2. **Institutional-level**: concerning the challenges of the educational institution as a unit;

3. **Individual-level**: covering challenges that concern individuals who are involved in the processes of integrating ESD at an educational institution.

Systemic-level challenges

Systemic level challenges can refer to potential inadequacy of national policies, making it difficult to successfully harmonise ESD adoption from educational institutions at all levels. In this, the **lack of standardised guidelines** being shared from a central level along with the need to tailor them towards each institutional type and level creates challenges to the integration process. An additional challenge concerns the **standardised testing** and **rigid curricula**, which may leave little room for ESD incorporation. An example of this is connected to the prioritisation of exam-based outcomes which can pressure the educators towards following a preset timeline and curriculum, with little room for flexibility. Lastly, in this sub-category of inadequacies which come from the central level, it is important to also mention cases where national and/or regional **funds are insufficient**, further straining and **limiting the capacities** of public educational institutions at all levels.

Similarly, a cross-cutting challenge is also connected to **societal attitudes** which undervalue the importance of sustainability. This can take place both within an educational institution's stakeholders, but also with external ones. Undervaluing the need and importance for sustainability affects the potential of integrating ESD in an educational institution as it can potentially create resistance from various stakeholders, in light of their personal beliefs.

Some of the ways to mitigate these challenges are connected with the following:

1. Advocating for ESD integration and guidelines in national policies where relevant;

2. Promoting the request for alternative assessment methods (e.g., project portfolios) and for ESD-aligned testing;

3. Partnering with NGOs to improve both advocacy and support actions which might be lacking due to insufficient resources;

4. Providing workshops to external and internal stakeholders which can practically highlight the importance of sustainability, in order to reduce resistance.

Creating a change at a systemic-level necessitates educational clustering and cross-institutional efforts on advocating and promoting for policy shifts (**European School Education Platform, n.d.**).

Institutional-level challenges

Institutional-level challenges can refer to aspects connected with organisation, resource management, prioritisation, collaboration, conflict, curriculum and other related components. Some indicative challenges are outlined below.

Initially, the most pressing matter educational institutions are frequently concerned with, is associated with **resource availability and management**. Resources can refer to financial and human capital along with time. **Limited funding**, along with a **shortage in staff or expertise** can hinder the integration of ESD in an educational institution. Similarly, another component which can significantly affect this process, is the existence of strong commitment from the side of the educational leadership. **Lack of will**, can impede the process and may also magnify other related challenges such as **high bureaucracy**, **slow decision-making processes** and **limited collaboration**. Additionally, another factor which can affect the process of ESD integration, concerns the **competing priorities** that an educational institution may have: e.g., achieving technological or financial goals vs sustainability. This can further complicate the balancing of diverse interests and priorities of both internal and external stakeholders. Last but not least, monitoring, while vital, can also become a challenge due to further stress on resources.

Some of the ways to mitigate these challenges are connected with the following:

1. Creating an ESD focal point or team to function as a central point;

2. Aligning, when possible, ESD with existing and competing priorities;

3. Commencing with low-cost ESD projects while seeking for grants and support for bigger projects.

Creating a change at an institutional-level demands commitment and improved resource allocation methods.

Individual-level challenges

Individual-level challenges may include several components such as resistance to change, varying levels of knowledge on ESD, time constraints, motivation and commitment levels.

Several of these points have been highlighted by the academic community, with **lack of motivation and time** from employees and teaching staff, **poor performance assessment**, and **shortages of supplies** being significant factors (**Filho et al., 2018**). Additional barriers include **inadequate training for teaching staff on sustainability** and **insufficient funding** (**Hinduja et al., 2023**; **Lomba-Portela et al., 2022**; **Quinn, 2011**).

> The following list collects various aspects which can be practically helpful to break down the various challenges at the individual-level:

1. **Resistance to change which can stem from:**
   a. comfort with traditional teaching methods,
   b. fear of increased workload,
   c. personal beliefs and values concerning sustainability, e.g., misconceptions about ESD (only environmental dimension).

2. **Lack of preparedness connected to:**
   a. Varied ESD literacy levels;
   b. Lack of technological skills;

3. **Time constraints**

4. **Motivation and commitment levels.**

A practical example of these challenges comes from Sanchez-Carrillo et al. (**2021**), who highlight specific obstacles academic institutions must overcome. One issue is that academic staff sometimes refuse to leave their comfort zones to implement ESD. Additionally, while some universities possess knowledge about ESD and its implementation, this knowledge often remains confined to specific sectors related to these concepts, rather than being disseminated throughout the entire institution.

Some of the ways to mitigate these challenges are connected with the following:

1 **Implementing** capacity-building of educators to increase ESD related knowledge and reduce misconceptions;

2 **Utilising** peer-led workshops to demonstrate relevance of ESD;

3 **Promoting** a habit of experimentation with pilot-projects.

Creating a change at the individual-level is a continuous and strenuous process, but can make the difference. It needs positive incentives, capacity-building, and institutional facilitation/support to become a reality.

Practical considerations during ESD plan preparation and integration

This section outlines the necessary elements for the effective planning and integration of ESD in educational institutions at all levels. It showcases the significance of the following:

1. **designating** a dedicated focal point or team;
2. **conducting** a comprehensive needs assessment;
3. **defining** the ESD related vision, mission and other related components;
4. **managing** the internal and external communications and engagement;
5. **planning** and **managing** the operational aspects;
6. **monitoring** and **evaluating** to assess ESD related progress.

It is important to note that the roles and functions of the management authority vary between higher educational institutions, secondary institutions and primary schools; autonomy in decision-making, curriculum control; student management and resource allocation change in each of the above-mentioned educational categories. Nonetheless the insights provided in this section are provided in a broad manner in order to be relevant for various educational institutions at all levels. Lastly, practical tools for management, research, stakeholder engagement and operational considerations are also presented, throughout this section, in order to make sure that the process of ESD plan preparation and implementation is comprehensive and functional.

ESD focal point

A focal point for ESD is a designated individual or a team tasked with leading and coordinating sustainability initiatives within an educational institution. This dedicated point of reference takes a central role in coordinating ESD planning, integration and monitoring, while taking into account the input of all internal stakeholders. This approach enhances the institution's capacity to implement effective and cohesive sustainability strategies, driving meaningful and lasting impact.

The aim of this subsection is to provide practical considerations to take into account when designating and organising such an ESD focal point.

Focal point designation considerations

An ideal candidate, or group, for the role of ESD focal point at an educational institution is someone who showcases a deep commitment to sustainability values and possesses strong leadership, communication, organisational and adaptability skills (**Awodiji, 2024**; **Singh, 2023**; **Uitto & Saloranta, 2017**). They should be able to involve diverse stakeholders, such as faculty, administration, students, and staff to enrich the effectiveness of the focal point and successfully coordinate actions across various departments. In this context, the focal point **leads the planning and implementation of ESD initiatives**, acts as a **liaison between different stakeholders**, and **monitors progress towards ESD integration**. Additionally, the focal point should also be **proactive in seeking partnerships**, **funding opportunities**, and **professional development** to continually improve ESD integration at the educational institution. Since an effective ESD focal point should exhibit leadership, commitment, communication, organisation, planning, proactivity, identifying the most suitable candidate, especially if the institutional resources are limited, can be challenging.

Specifically in the AELIA project partner countries, educational institutions that face challenges related to resource-limitations and efficiency, may frequently have a higher administrator such as school principals, or vice-principals take the role of an ESD focal point (**Kadji-Beltran et al., 2013**). Similarly, this role can also be delegated to an educator (**Timm & Barth, 2019**); who might have differing understandings of the notion of sustainability based on her/his background (**Ferguson et al., 2021**). Less frequently, but potentially, this role can also be undertaken by learners of an educational institution. In private and also non-formal educational institutions, it is also possible to have an external ESD coordinator who can consult in integrating sustainability at the institution; nonetheless, this incurs further costs in terms of resources. As such, the main fields that an ESD focal point can originate from, are those of administrators, educators, learners and external stakeholders.

To effectively lead ESD in an educational institution, it is crucial to select the right individuals for the focal point. According to Gabriel and Farmer (**2009**) there are some specific characteristics that an individual needs to have in order to be considered for coordination roles:

Be able to earn the respect and trust of internal and external stakeholders (learners, educators, the local community);

Be genuinely passionate about the practices they promote in the educational environment;

Be dedicated to the cause beyond their formal roles or titles.

Utilising individuals from some of the above-mentioned fields may be less resource-intensive in terms of time and cost (e.g., geography educator, vice-principal), while others are more strenuous (exclusive ESD-coordinator). There, usually, is a correlation between impact and cost – the more you can allocate for ESD, the better results you may achieve – nonetheless, this is not always possible. As such educational institutions need to identify non-resource-intensive options for better organising ESD-related processes, tailored to their specific capabilities and needs.

In case of resource availability, the designation of a group of individuals as focal point can lead to improved results. Some indicative roles that can be part of such a group are mentioned in the list below:

1. **Focal point coordination:** Provides overall direction and coordination related to the group's ESD-related internal priorities, dynamics and organisation;
2. **Curriculum and professional development:** Organises pieces of training to enhance educator capacity in ESD pedagogy and also implements the integration of sustainability in curricula;
3. **Operational/Resource management:** Implements and oversees sustainability practices connected with resource allocation and daily operations of all the educational institution;
4. **Communications and stakeholder engagement:** Manages both internal and external communications;
5. **Monitoring and evaluation:** Provides the monitoring and evaluation design for assessing the progress and impact of ESD initiatives with concrete data and analyses.

These roles also indicate what are the specific components that a focal point, be it individual or a group, should entail. A possible solution to avoid straining already limited resources, is to initially designate, for a short-period of time, an extended group which will implement the initial phases of ESD planning, and then reduce the size of the group by broadening and combining the capacity of each role.

ESD focal point role and responsibilities

Since we have highlighted that the ESD focal point aims at spearheading the ESD integration process, it is now important to outline some of their responsibilities. The following sections of this guide are examining the role of an educational institution's ESD focal point in:

a) **conducting** a comprehensive needs assessment;

b) **defining** the ESD related vision, mission and other related components;

c) **planning** and **managing** the operational aspects;

d) **managing** the internal and external communications and engagement of the;

e) **monitoring** and **evaluating** to assess ESD related progress.

Needs assessment

A needs assessment is a systematic process that helps the educational institution identify its current and desired state in terms of ESD integration (**Altschuld and Lepicki, 2010**). This process is essential for aligning your sustainability initiatives with overall institutional goals and for guiding targeted interventions and efficient resource allocation (UNESCO, 2020; European Commission, 2019; OECD, 2017). By clearly defining what "needs" are - such as inconsistencies in current sustainability knowledge, skills, and attitudes versus those required for desired outcomes - the ESD focal point can establish a strong foundation for long-term improvement (**Sleezer, et al, 2014**). This process also initiates a continuous improvement cycle, ensuring that efforts and results are organised and measurable (**Ibid**.). When initiating a needs assessment some important components to take into consideration are the following:

1. Definition of concepts, needs and stakeholders;

2. Data collection and analysis;

3. Presentation of findings and recommendations.
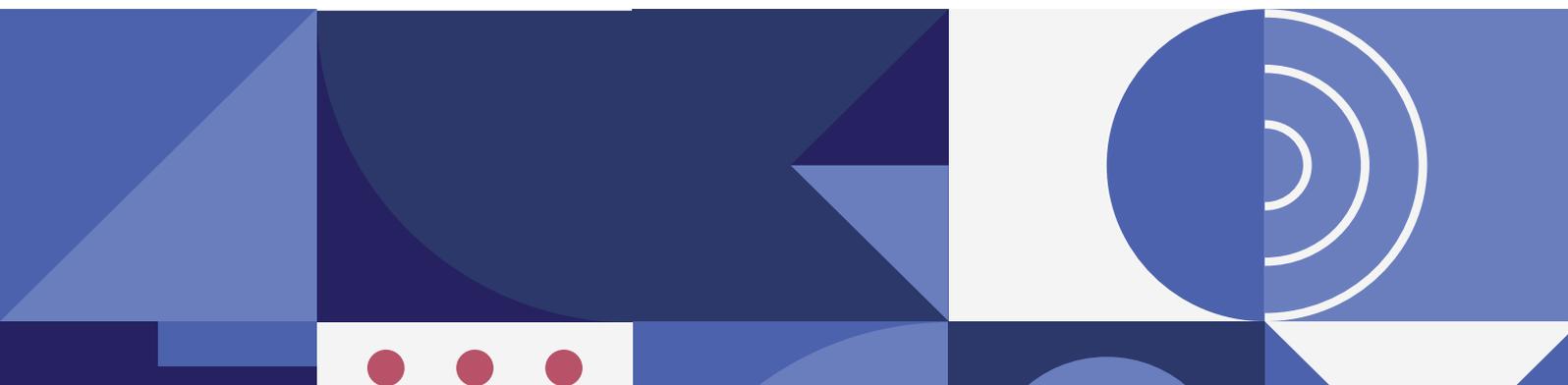
Definition of concepts, needs, stakeholder mapping

An important and preliminary step in the needs assessment is to define the concepts and needs that are being assessed and also map the stakeholders that are involved and affected in the process. In this phase, and before beginning collecting internal primary data from the educational institution itself, a desk research is conducted to clearly outline concepts, guiding questions and key areas of focus, such as curriculum adaptation, educator's professional development, and institutional resource management.

When defining the concepts and the needs, a desk research which takes into account the following can facilitate your efforts:

Identify existing international documents and guidelines that refer to your context.	The European Education Area **Document Library**, **UNESCO**, **UNU-IAS**, **OECD**, **CoE**, and the **World Bank** are a good place to start.
Examine existing national and regional policies which provide clarifications, guidance and support. Consider also exploring national statistical agencies.	Ministries of Education, government affiliated Institutes of educational policy. EU's **Education and Training Monitor** and **Eurydice** can also be helpful.
Conduct a short but comprehensive literature review.	Some of the places you could begin are: **Education Resource Information Center**, **Google Scholar**, **JSTOR**, **Dataset Search**, **BASE** and **DOAJ**.
Explore and examine implemented projects and good practices.	**Cordis**, **Erasmus+ project results**, and **Regional Centres of Expertise** for ESD can provide ideas on what others are doing in the broader field of ESD.

Similarly, identifying and engaging the key internal stakeholders who will be affected by or can contribute to ESD efforts is a vital step. This step maps out internal groups-administrators, educators, learners and other relevant staff. For example, involving teachers early on can provide practical insights into how sustainability themes might be integrated into classroom instruction, while local partners can offer perspectives on relevant sustainability challenges.

Data collection and analysis

Immediately afterwards a data collection framework needs to be prepared. The data collection framework entails the following:

1. **Defining** data collection objectives and guiding questions;
2. **Identifying** data sources;
3. **Developing** data collection instruments (e.g., survey);
4. **Organising** and **preparing** data for analysis.

Defining data collection and objectives is a step that involves determining what information is needed to assess the educational institution's ESD integration level and readiness. Creating guiding questions such as *"What sustainability practices are currently in place?"* and *"Where do gaps exist in teacher training?"* will help in identifying the current state. After this step, it is important to clarify and decide on data that will be utilised. Taking advantage of institutional databases for quantitative metrics (descriptive statistics of institution population, attendance, energy consumption) and organising interviews/focus groups with teachers and students for qualitative insights is a viable method.

> Some considerations for the necessary elements of Needs Assessment are available **here** and **here**. For a broader overview of NA methodologies, you can also explore this **guide**.

The next step of this process is to develop data collection instruments. Data can be collected with various methods; some are being summarised in the table below.

Data collection method	What it is for	Examples
Surveys and Questionnaires	Captures diverse perspectives and quantifiable data, enabling the identification of trends and discrepancies between current practices and desired outcome.	Online survey asking educators about their awareness of sustainability initiatives, or about the barriers they face in incorporating ESD into lessons.
Interviews	Uncovers nuanced perspectives and underlying factors affecting ESD integration that might not be captured in surveys.	Headmaster or administrator interviews to learn about the challenges in policy implementation.
Focus Groups	Helps identify common themes and encourage participants to build on each other's ideas, enriching the data collected with varied insights.	Focus groups with teachers or students to explore their understanding of sustainability and ideas for curriculum improvements.
Observations	Provides real-time empirical data on how sustainability is actually practiced, offering tangible evidence to support or question self-reported data from surveys or interviews	Observation of classroom activities noting the incorporation of sustainability topics or for checking if recycling bins and energy-saving measures are in place.
Textual and multimedia content	Helps: a) understand the formal structures and documented practices that support ESD, revealing trends and gaps in current strategies; b) complement other sources of data.	Review annual reports, curriculum documents, images and/or videos to evaluate how well ESD is integrated into the educational setting.

> Additional information on research design in educational settings you are available **here** and **here**. For a broader overview of NA methodologies, you can also explore this **guide**.

After collecting your data, use established frameworks to analyse the findings. Frameworks such as PESTLE (Political, Economic, Social, Technological, Legal, Environmental) and SWOT (Strengths, Weaknesses, Opportunities, Threats) are especially useful for structuring this process and ensuring that no critical area is overlooked **CIPD, 2025; RAPIDBI, 2016; University of Kansas, n.d.**). A SWOT analysis can help you understand internal strengths and weaknesses, while a PESTLE analysis can shed light on external factors affecting your ESD initiatives. You may utilise templates freely available **here** and **here** to visualise and streamline this procedure.

> For qualitative data analysis you can utilise **Voyant Tools** or **Taguette** which are open source, online and freely available.

Simultaneously, once the data is organised-using spreadsheets, databases, or visualisation tools-the next step is to identify key trends and patterns that emerge from the analysis. Creating visual dashboards, charts, and graphs makes it easier for everyone to quickly grasp the main issues and gaps. Prioritise needs based on criteria such as impact, feasibility, and alignment with the main goals you have set. For instance, if the analysis shows that limited teacher training is a major barrier, and educator professional development had been initially set as a main objective, this should be treated as a top priority for immediate action. Transforming raw information gathered from surveys, interviews, focus groups, and document reviews into a coherent and actionable picture of an educational institution's ESD readiness is a significant step towards an effective ESD plan.

Presentation of findings and recommendations

The final step of your needs assessment is to turn your findings into clear and practical recommendations. You might discover gaps in teacher training, poor cooperation among departments, or inefficient resource use. Based on these findings, consider recommending targeted training programs, improved communication channels, or reallocating resources to support sustainability projects. Recommendations can be made based on the SMART (Specific Measurable Actionable Relevant and Time-Bound) goals framework (**University of California, 2016**).

> Other relevant frameworks for goal setting can be the **CLEAR**, **PURE** or **FAST**.

Whichever framework you use, make sure your recommendations outline clear steps, deadlines, and responsibilities so that they can be easily put into practice and tracked. By pinpointing areas such as curriculum gaps related to ESD implementation, professional development needs, and opportunities to boost stakeholder collaboration, your needs assessment creates a strong foundation for an effective ESD plan.

The VMOSA

The aim of this subsection is to outline the VMOSA (Vision, Mission, Objectives, Strategies and Action Plan) framework which is adapted from the Community Tool Box of Kansas University. The terms are concisely defined below (**University of Kansas, n.d.**):

1. **Vision** – What are the ideal conditions, how things would look if ESD was successfully integrated into the educational institution? This should be briefly defined in one or two phrases.

2. **Mission** - Describes what the group is going to do, and why it's going to do that. It is similar to vision, but more concrete and action-oriented.

3. **Objectives** – Specific measurable results for the initiative's goals; they lay out how much of what will be accomplished by when.

4. **Strategies** – Explain how the initiative will reach its objectives.

5. **Action plan** – Describes in great detail exactly how strategies will be implemented to accomplish the objectives that have been set earlier. A plan refers to: a) specific changes to be sought, and b) specific action steps necessary to bring about changes in all relevant aspects.

> All VMOSA steps and definitions along with several examples are outlined **here**.

> An activity for educational institutions that are aiming to define their ESD related vision and mission has been highlighted in the previous AELIA Guide for preparing ESD plans available **here**.

> A more comprehensive but more wide-ranging activity which needs an external facilitator is the MOST framework available **here**.

The duration of defining VMOSA might take approximately two to three full business days. As such they are labour intensive, but once the VMOSA has been set, the most difficult part of the planning has already been finalised. The remaining steps concern the implementation of the decisions that have been taken during this phase.

> An alternative to VMOSA is the Lesson Study Cycle. More information can be found **here** and **here**.

VMOSA checklist:

The focal point has defined the ESD plan's :

1. **Vision** (the dream) [ ]

2. **Mission** (what and why) [ ]

3. **Objectives** (how much of what by whom) [ ]

4. **Strategies** (how) [ ]

5. **Action plans** (who will do what by when) [ ]
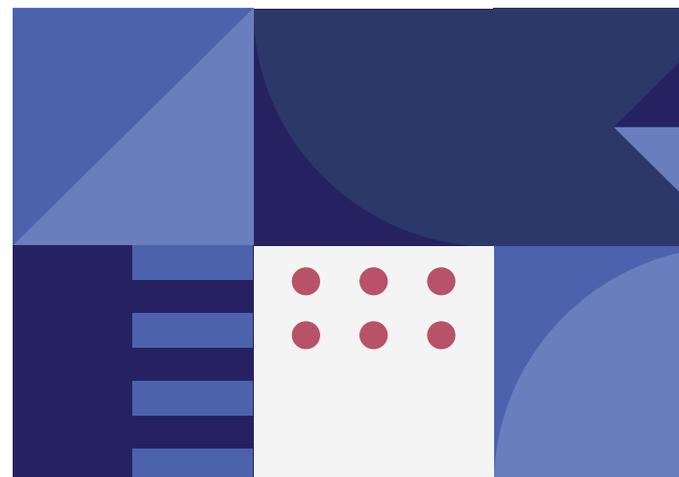
Important considerations for the VMOSA

Timeframe definition

In order to have a successful educational plan, it is important to set specific time limits, especially in group settings:

- When a team prepares the action plan and its objectives, it must consider the available time for its completion.

- During the planning phase, it is essential to set specific deadlines for each task.

- In order to keep the project on track, it is necessary to respect these deadlines.

As research has shown, deadlines play a vital role as they motivate students to start working on tasks. Research indicates that productivity increases as deadlines approach. However, it is important to set realistic deadlines. The individual who is responsible for establishing the project's timeframes must carefully balance deadlines to avoid overwhelming the group with overly strict or difficult-to-achieve goals. Maintaining this balance helps manage pressure effectively (**Gevers et al., 2001**).

To assist with this task, a customisable deadline and task tracker template
can be utilised through Canva available **here.**

Inclusion, diversity and accessibility

In educational institutions, integrating ESD is associated with embedding core values-such as equity, diversity, inclusion (EDI), and accessibility-into both the curriculum and its culture. In the context of VMOSA, these aspects should be considered by the focal point. The ESD plan must work towards the direction of removing barriers (equity), embracing differences (diversity), and ensuring that every person is respected and supported (inclusion). It is also important to view disability as the result of societal barriers rather than personal limitations (Gesser & Martins, 2019). Training in EDI is key for teachers to effectively address the varied needs of their students (Milner, 2009). Additionally, implementing a Gender Equality Plan (GEP) can help balance power dynamics and promote fairness within the school (Clavero & Galligan, 2021). This approach lays a strong foundation for lasting, positive change in the educational environment.

According to Wolbring & Lillywhite, (**2021**) the term (EDI) equity/equality, diversity and inclusion is defined as follows:

- "Equity is defined as the removal of systemic barriers and biases, enabling all individuals to have equal opportunities to access and benefit from programs.

- Diversity refers to differences in race, colour, place of origin, religion, immigrant and newcomer status, ethnic origin, ability, sex, sexual orientation, gender identity, gender expression, and age.

- Inclusion is the practice of ensuring that all individuals are valued and respected for their contributions and are equally supported"

- Disability: "The social model of disability emerged as a counterpoint to the biomedical model - which saw disabled people as having problems that needed to be cured or rehabilitated -, and defines disability as the relation between physical, sensory and intellectual impairments and barriers which hinder the participation of people with disabilities in society in equal terms. Therefore, it shifts disability from the biomedical scope to the social context, emphasising that it is a human right issue"

Educators aspiring to engage in ESD initiatives must be socially and environmentally conscious. It is beneficial for all members of an educational institution to make small, meaningful changes in their behaviours and values to practice sustainability in action. This includes the promotion of values such as diversity, inclusion, environmental awareness, and accessibility (**Gesser & Martins, 2019**) related to both the physical and digital environment (**OECD, 2023**). In addition to promote these values, planners are required to shift their perspectives when adopting everyday sustainable practices. Therefore, before planning an ESD project, it is useful for the focal point to ask itself some of the following questions.

- How can it be ensured that the ESD planning respects and incorporates the diverse cultural backgrounds and experiences of the learners and the community?

- What specific concepts and knowledge about sustainability are essential to include in our curriculum to maintain safeguard EDI?

- How can the ESD plan promote equal opportunities for all genders across curricula and extracurricular activities and ensure that gender biases are identified and removed from educational material and practices?

- What steps can be taken to guarantee that all educational materials and campus facilities are accessible to students with disabilities?
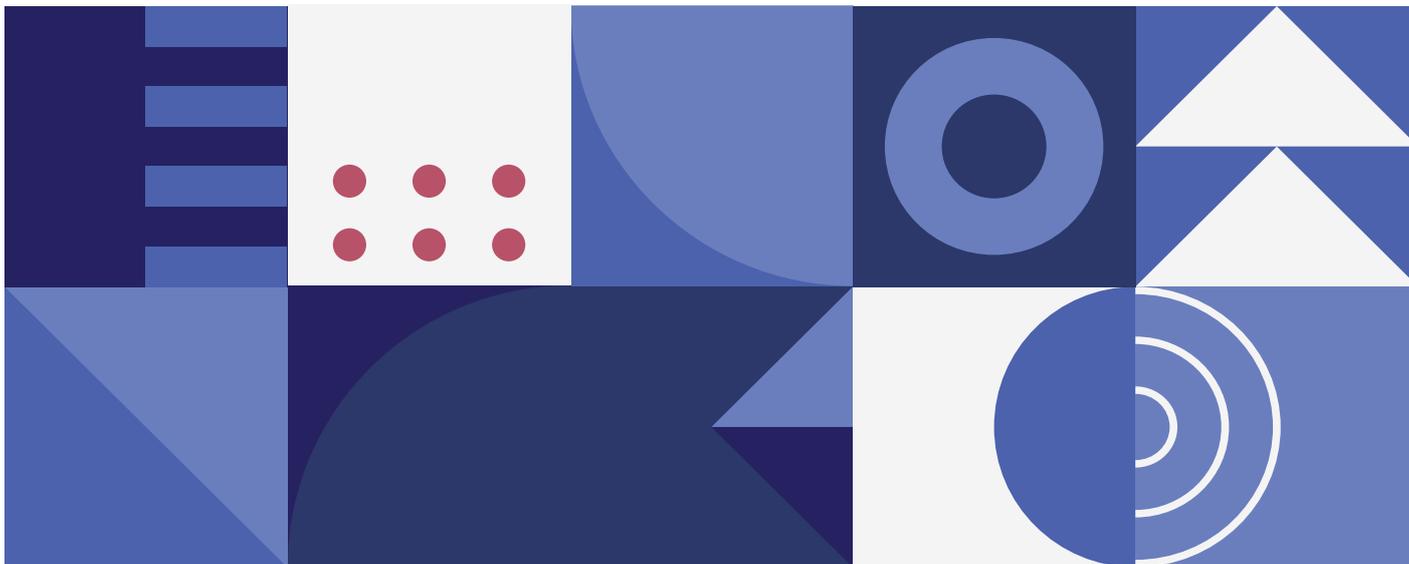
Resource management considerations

Educational institutions, often find it challenging to identify the needed resources for implementing ESD related planning and implementation. To address this issue, it is recommended to utilise existing resources, such as technology, expertise and human capital which are available in most of the educational settings. For example, while creating a sustainable garden is an ideal initiative, many schools cannot afford it. Instead, schools can utilise cost-efficient and available resources, to introduce students to ESD through the internet (UNESCO, 2006). This can include watching documentaries, YouTube videos, TED Talks, and exploring websites with relevant topics – the Resources under the corresponding section of this guide can support you in this. Additionally, students can engage with online courses, virtual tours of sustainable projects, and interactive educational platforms that provide valuable insights into sustainable development practices. These resources not only make ESD more accessible but also enrich the learning experience by providing diverse and engaging content.

> Helpful resources for the advancement of sustainable operations and sustainability
> in higher education are available at: **ISCN, AASHE** and **EAUC**.

According to UNESCO guides (2020, 2024), the careful consideration of all available resources within an educational setting is important. For that reason, it is necessary to identify these resources and assess them based on the institution's needs. Tailoring the plan based on resource availability and relevance is a crucial step. Resources can be everything and everyone within the educational institution; it can include human resources, infrastructure, finances, materials, supplies and social capital (community engagement, network). Some considerations for operational management are outlined below:

1. Identify what are the educational institution's resources:

- Evaluate physical facilities. More specifically, see which are the available spaces (indoor and outdoor). For example, an open-air space can be used as an open-air classroom or outdoor spaces can be transformed into sustainable gardens with edible plants and herbs.

- Note all the available materials, including recyclable items that can be used differently.

- Check technological availability and accessibility (computers, laptops, internet access, projectors).

2. Human resources:

- Identify educator expertise related to the project's topic and their availability to participate, consult, and guide ESD related projects.

- Determine individuals who can be responsible for various tasks based on expertise, experience and availability.

- Engage learners in the process.

3. Community engagement:

- Reach out to parents, volunteers, alumni, and the local community for support.

- Seek collaborations with other networks or local community initiatives to share guidance, resources, and execution efforts.

In order to check all the above, it is recommended to prepare a resources inventory and a digital database by:

1. Listing all identified physical and human resources. This should include descriptions, locations, conditions, and potential uses for each resource.

2. Maintaining a digital database or spreadsheet to organise and update resource information. This database can be shared with all relevant stakeholders to ensure transparency and coordination.

Communication and stakeholder engagement

Engaging stakeholders can prove to be a challenging task for an educational institution. Whether the focus is on internal stakeholders – e.g., school staff and students – or external ones – such as parents, civil society organisations, or regional bodies – communication is a central component in stakeholder engagement. Each stakeholder has different needs, different engagement levels with an educational institution, but also different communication channels in which they interact. This means that successful stakeholder engagement in ESD needs a comprehensive approach and adjustments based on the type of stakeholder the educational institution gets involved with. This subsection explores the basic components of a communication plan aiming to increase stakeholder engagement in the context of ESD. Through a series of questions, readers may proceed with the development of a communication plan on their own.

> **Communication Plan** A tool that helps ensure consistency across all communications (**IED, 2024**). It can consist of five major components: objectives, audience, communication channels, responsibilities and timing (**Newman, 2016**).

Question 1: What is your objective (What?)

Whether you want to promote a sustainable practice to be followed by your institution's staff or you want to invite external participants in an upcoming initiative, it is imperative to clarify your objective. What do you want to achieve through this stakeholder engagement? What is your key message? What exactly is it that you and/or your institution want to promote and share with stakeholders? The answer to these questions should align with the objectives of your activity. The key message should also be as clear and concise as possible to maximise outreach and stakeholders can understand it more easily.

> **Tip:** The "SMART" which was previously introduced can serve as a useful framework to clarify your goals here too.

Question 2: What is your audience (To Whom?)

The target-group of your message has implications on both the ways you frame your message and the ways to reach stakeholders. Knowledge of your audience is essential if you want to plan your communication logically (**Community Tool Box, n.d.**). Different groups may require different messages or different discourses, but also different channels and methods. An in-depth understanding of the stakeholders you want to engage is crucial and consists of an analysis of demographic characteristics, interests and preferences, behaviours, needs and challenges (**IED, 2024**).

Question 3: What are the most suitable communication channels? (How?)

Channels of communication have an irreplaceable role in stakeholder engagement and public outreach. Even the clearest and most engaging messages have zero impact if they never reach out to the interested stakeholders. The selection of the most suitable channels should be based on the objectives and the audience of your communication plan. Each type of communication channel has its characteristics, and people may engage in it differently. Indicative examples of communication channels include social media, newspapers and magazines, newsletters, press releases, emails, videos, posters, events, and social gatherings.

Tip:

Diversification and integration of the channels into your communication plan are key in maximising the overall impact and effectiveness of the message. Diversification can take the form of using different channels to promote your message (e.g. multiple social media, emails) and/or the type of activity (e.g. video, press releases, posters).

Question 4: Whose responsibility is it? (Who does what?)

Mostly for purposes of internal planning, it is important to clarify who is responsible for preparing the scheduled communication activity. It depends on what your message is and what resources and skills are needed to prepare a communication activity. For example, whether you plan on preparing a post to invite stakeholders in an ESD initiative you are going to implement or you want to create a video with sustainable practices adopted by your institution, the responsible person should have access to and basic knowledge on certain tools to prepare the planned material. Additionally, ambiguity on whose responsibility is to work on the communication activity may cause disruption in the process or delays.

Tip: If you plan to work on an activity that requires technical knowledge (e.g. knowledge of a certain software) do not be afraid to ask for support from colleagues or other people in your social circle.

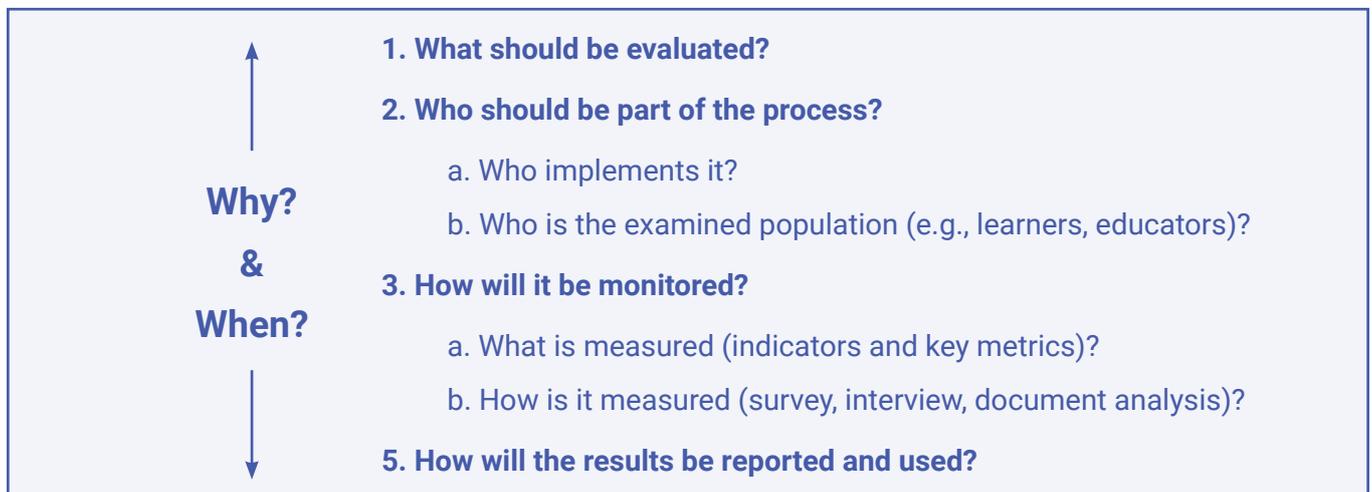## Question 5: What is the most suitable timing? (When?)

The appropriate time for sending a message has a significant impact on stakeholder outreach. If you are planning a social gathering with members of the local community or representatives of Civil Society Organisations to discuss best practices on ESD, make sure to send your invitation sooner, so your guests can make time in their schedules (**Newman, 2016**).

Monitoring and Evaluation

Taken together, monitoring and evaluation (M&E) refer to the combined use of monitoring and evaluation to track the progress of an initiative (or usually project) – monitoring - and to periodically assess its performance, outcomes and impact - evaluation. M&E, which in some cases is also teamed up with Learning (MEL) is considered a *"synergistic process to track progress in real time while assessing and learning from the results for future planning"* (**Nor Ali & Dayah Abdi, 2023**; **Scotland International Development Alliance, n.d.**; **Mathematica, n.d.**). The current section briefly defines the terminology and provides concise information on additional resources where various M&E guides and methodologies are available.

Monitoring and evaluation share some similarities but are distinct. Simply put monitoring refers to keeping track of what is being done, while it is being done, so that it can be identified early and corrected if needed (**UN, 2006**). Evaluation on the other hand, means finding out if the effect (impact) on the target population has been achieved after the implementation has been finalised (**Ibid.**). The main difference is that monitoring is an ongoing process while evaluation takes place after an initiative is completed; an evaluation cannot change the outcome of the finished initiative but provides valuable insights and lessons for improving future efforts.

The M&E planning phase identifies the what, who, how and why for the process. The guiding questions can be the following (**Kusek and Rist, 2004**):

**Why?
&
When?**

1. **What should be evaluated?**

2. **Who should be part of the process?**

    a. Who implements it?

    b. Who is the examined population (e.g., learners, educators)?

3. **How will it be monitored?**

    a. What is measured (indicators and key metrics)?

    b. How is it measured (survey, interview, document analysis)?

5. **How will the results be reported and used?**

> Step by step M&E guides with further resources and guidance are available **here** (World Bank), **here** and **here**. Several related resources can be accessed through the **UNHCR**'s MEL directory.

> An interesting book telling the story of a school through various points of view (pupil, parent, teacher, headteacher) which includes insights on evaluation can be found **here**.

Several of the steps outlined above are similar to what has been described in the needs assessment sub-chapter (See **NA**). As such it is advisable to involve the same individual or group of individuals in both processes.

Practical considerations:

1. Define clear indicators and metrics

- Indicators are measurable markers that track a project's progress toward its goals. They show observable changes and help gauge whether a project is on the right path. Defining indicators involves choosing what to measure and setting success targets based on baseline data (**Scotland International Development Alliance, n.d.**).

- In this **matrix** guidance is provided in terms of the available tools.

2. Frequency of M&E

- The most important aspects are the initial assessment and the final evaluation. These will create a comparative baseline both based on the initial phase but also between years of implementation.

- Ongoing Monitoring: Maintain the monitoring procedure easy both in terms of data collection and also in data analysis. The frequency of this could be monthly or bimonthly, depending on the extent and duration of the action plans.

3. Ethical considerations

- Confidentiality: Make sure that all data collected during the evaluation process is handled confidentially. Responses should be coded and anonymised. Participants should feel safe to provide their honest feedback.

- Informed Consent and voluntary nature: Clearly explain the study's purpose, procedures, and any risks to participants so that they can agree knowingly, and have the option to withdraw at any time. Participants should join the study voluntarily without any pressure or coercion.

- Not Raising Expectations: Clearly state what is within the project's control and manage participants' expectations realistically.

- Inclusivity: Ensure that the evaluation process is inclusive and considers the voices of all participants, including those from diverse backgrounds.

4. Resource allocation and responsibilities

- Time and Staff: Who does what and when are very important components and should be clearly defined. If available and possible allocate budget for tools, training and software. Nonetheless, for the latter free alternatives are also available.

5. Measure M&E capacity itself

- There are M&E capacity assessment methodologies available which help an organisation identify current capacities, gaps and areas to improve. Indicatively the **MECAT framework** is mentioned.

Resources

Student engagement resources[1]			
Title	**Description**	**Type**	**Accessible at:**
Why Kids Should Nature Journal at All Grade Levels	An article explaining the benefits of student journals about nature and the environment on all levels of school life. The rationale behind this learning approach is to engage students by sparking their curiosity to get better acquainted with the concepts discussed in the classroom.	Article	**Link**
4 Strategies for Teaching About Climate Change	This article underscores the importance of incorporating climate science into the curriculum to raise awareness and encourage critical thinking. The piece provides practical lesson plans, activities, and tools to engage students in understanding the causes, impacts, and solutions related to climate change.	Article	**Link**
Lesson Plans for Teachers	The **eco-schools website** offers a valuable list of lesson plans on sustainability-related topics (Sustainable Development Goals, litter & waste). Teachers have developed these lesson plans to support other teachers promoting an action-oriented pedagogy. They cover the needs of different age groups of primary and secondary education students. Some of the lesson plans are adjusted for both classroom and home-schooling settings. Numerous lesson plans are available in English, French, Portuguese and Spanish.	Lesson Plans	**Link**
Environmental Education: Multimedia learning packs	A series of learning packages is offered by Deutsche Welle to support environmental education. This teaching material is prepared for age groups 12 – 16 years old. They include booklets for teachers, workbooks for students, films and posters. The different modules are divided into 10 learning packs and some topics covered include plastic waste, forest protection, urban green spaces, food waste etc.	Multi-media	**Link**
Global Oneness Project	The global oneness project is a free archive collection of films, photography, essays and lesson plans for educators. Not exclusive to environmental and sustainability topics, this website offers valuable multi-media resources to support teachers engaging their students.	Multi-media	**Link**
The Sustainable Development Goals: A guide for teachers	This guide helps teachers and educators working with young people to enhance their understanding of education related to the SDGs. It also demonstrates how global citizenship education approaches and methodologies can support effective practices.	Guide	**Link**

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1   Most of the resources are available in English with the possibility for auto-translation to other languages.

Title	Description	Type	Accessible at:
Teaching Climate and Sustainability in Primary Schools: An Outdoor Learning Approach	This course from the University of Reading empowers primary school teachers to integrate climate and sustainability education through outdoor learning. Participants will explore the significance of outdoor activities in inspiring students and fostering environmental care, supported by case studies and expert insights. It provides a series of resources and strategies to create action plans for embedding climate education in schools.	eLearning Course	**Link**
Global Schools Program	The Global Schools Program (GSP) is the flagship primary and secondary education program of the UN Sustainable Development Solutions Network (SDSN). It provides teachers with free tools, frameworks, and training to teach sustainable development in the classroom; improve student skills; introduce the use of new pedagogical approaches such as active-learning and student-centered teaching methods; and improve the overall quality of education. Among the GSP's rich list of resources, one can find lesson plans and activities' guides on sustainability topics in multiple languages.	Lesson Plans	**Link**
Sustainability Through Film	This MOOC equips educators with tools to teach sustainability through film analysis and basic film-making techniques. Participants will access curated short films and student-made clips to introduce sustainability topics, while learning to guide discussions and practical exercises. Additionally, it covers sustainable film-making practices, enabling educators to help students create their own films to express ideas on sustainability. Participating educators may gain creative and hands-on strategies to engage students across all levels of education.	eLearning Course	**Link**
Engaging the Whole School with innovative action plans on Sustainability	A curated selection of quality teaching materials developed by educators participating in an online course **"Sustainability in the Classroom & Beyond – Engage the Whole School!"**. The action plans on sustainability cover a wide range of sustainability aspects such as environment, water consumption and urban public areas (among many).	Action Plans	**Link**
Resources for Rethinking	Resources for Rethinking (**R4R**) is an online educational database for quality sustainability teaching resources. Resources are reviewed by teachers for teachers and are available for free or low cost. It includes a rich list of resources such as lesson plans, children's literature, videos, outdoor activities, apps and games related to sustainability themes. It has specific sections the UN SDGs, teaching material (review process, lesson plans, pedagogical approaches, general assessment) and professional development resources to support educators in their sustainability-theme courses and curricula.	Platform	**Link**

Assessment and evaluation tools			
Title	**Description**	**Type**	**Accessible at:**
Sustainability Starts with Teachers	The Sustainability Starts with Teachers (SST) is a cost-free course designed for educators and teachers at all levels. Its focus is on an action-oriented approach to transformative learning in teachers' education and educational institutions. Through project-based learning, the programme encourages educators transformative learning towards sustainable development at the centre of their educational work. The course includes 6 modules. Among these, the 5th module covers the aspect of assessment on ESD. It provides some guidance for designing assessments, while also offers examples of alternative assessments such as Portfolio, reflective journals, peer-assessment, self-assessmen and rubrics.	eLearning Course	Link
Education for Sustainable Development Goals: Learning Objectives	This guidebook aims to help readers understand how education, particularly ESD, can contribute to achieving the SDGs. It outlines learning objectives, recommends topics and activities for each SDG, and provides guidance on implementation at various levels, from course design to national strategies. On the topic of evaluation, it includes a specific section on the matter discussing different assessment approaches.	Guide	Link
ESD Learning Webinar on Learning Assessment	This webinar – organised by UNESCO – focuses on embedding ESD competencies into education, discussing effective pedagogical approaches, learning assessments, and their impact on achieving ESD's transformative aims. This is part of the ESD-Net for 2030 learning webinar series.	Webinar	Link
Handprints for Change Teacher Education Handbook	This eLearning course provides educators with a variety of teaching materials to support their work in the field of ESD. The course's modules include practical resources such as lesson planning and assessment planning templates, designed to enhance teaching methods and effectiveness.	eLearning Course	Link
Professional development resources			
HBKUx: Education for Sustainable Development	This MOOC provides an in-depth, interdisciplinary approach to ESD. It provides best practices, policies and practical mechanisms on the topic. It up-skills stakeholders to support efforts in advancing ESD by promoting global perspectives and best practices. They will learn to integrate values and ethics into ESD while tailoring these practices to align with local communities and national priorities. Participants may either follow the course for free or pay a fee to receive a certificate upon successful completion.	eLearning Course	Link
IDBx: Climate Change Education	This MOOC provides a hands-on approach to understand climate change while addressing its social and ethical dimensions. Participants are equipped with videos, lesson plans, and online games to foster climate education and action within school communities. Additionally, it highlights sustainable practices at individual, school, and community levels. Participants may either follow the course for free or pay a fee to receive a certificate upon successful completion.	eLearning Course	Link

Title	Description	Type	Accessible at:
Educating for Sustainable Development (ESD) in Schools and Universities	This online course empowers educators to integrate ESD into their teaching practice, aligned with the UN SDGs. It provides an overview of global sustainability issues, research on ESD and policy debates. It is targeted towards educators at all levels of education, allowing them to explore teaching approaches, challenges and best practices to support planning and delivery of ESD lessons.	eLearning Course	**Link**
Introduction to Teaching Sustainability and Climate Action	This online course from the University of Glasgow explores the transformative potential of education in addressing the climate crisis through ecopedagogy. It highlights how ecopedagogy can foster ecological awareness, cultural shifts and socially responsible learners. Through this course, participants will develop course materials that integrate ecopedagogy principles.	eLearning Course	**Link**
Partnerships and collaborations			
A Collaborative Approach to School Community Engagement with a Local CCS Project	This article discusses a school programme that integrates climate science and carbon capture and storage education into sustainability curricula. Educators and educational institutions may leverage its cross-curricular resources and case studies.	Scientific Article	**Link**
School, Family, and Community Partnerships: Your Handbook for Action	This book offers practical strategies for educators to foster collaborative partnerships with families and communities to improve student outcomes. It provides actionable insights for developing programmes that engage multiple stakeholders in supporting educational goals, particularly within the context of sustainability. Even though it is not exclusively for ESD-related issues, educators may leverage the books frameworks to design inclusive educational practices and enhance ESD initiatives, creating opportunities for community involvement in promoting sustainability at school.	Book	**Link**
European School Education Platform	This platform is the European meeting point for the school education community working in early childhood, primary, secondary and initial vocational education. Through this platform, educators and educational institutions can find other stakeholders to connect for knowledge-sharing and/or collaboration on common projects. The platform also provides several resources such as toolkits, publications, news, webinars, lesson plans, teaching materials and project kits. Even though, it is not exclusively oriented to ESD, one can find several sustainability-related resources.	Platform	**Link**

Title	Description	Type	Accessible at:
UK Schools Sustainability Network (UKSSN)	The UKSSN is country-wide network in the UK with the aim that "by 2030, every child will leave school prepared to act collectively for the good of people and the planet." It brings together networks of schools, educators, students, and policy-makers to connect, share ideas and projects and exchange-knowledge. It also hosts events and trainings on topics related to sustainability.	Network	**Link**
Network of European Blue Schools	The Network of European Blue Schools, part of the EU4Ocean Coalition, aims to embed marine and maritime topics into school curricula across Europe. By engaging students in project-based learning on ocean-related subjects, the initiative promotes ocean literacy and fosters a sense of responsibility for marine environments. Schools in the network take on the "Find the Blue" challenge, where they identify relevant ocean topics, collaborate with students on projects, and integrate these themes into their teaching. This approach not only deepens students' understanding of the ocean's importance but also encourages them to become active participants in sustainable ocean stewardship.	Network	**Link**
Foundation for Environmental Education (FEE)	FEE is a global network committed to promoting sustainable development through environmental education. FEE operates in over 100 countries and operates internationally recognised programmes on sustainability-related topics. FEE's initiatives support schools, students, businesses, and communities in fostering environmental awareness, responsibility, and action.	Educational Organisation	**Link**
Resource management guides (waste, water, electricity, recycling)			
Energy in education: Energy management guide for schools	A comprehensive resource designed to help schools improve energy efficiency and sustainability. Developed by the Sustainable Energy Authority of Ireland, with support from the Department of Education and Skills, this guide provides practical advice, tools and strategies for managing energy use, reducing costs, and lowering carbon emissions. It covers topics such as energy audits, monitoring consumption, implementing energy-saving measures, and engaging the school community in sustainability efforts.	Guide	**Link**
Water Conservation Tips For Kids	A brief article that offers practical and engaging advice to help students learn the importance of saving water. It provides simple easy-to-follow tips, that students may follow in their daily lives. Additionally, emphasis is given on the role of education in fostering water-conscious habits from a young age.	Article	**Link**
How it works: Water Treatment	A 20-minute documentary explaining the process of water treatment in an engaging and easy-to-understand way,. It highlights how water is cleaned and made safe for drinking. The documentary covers key stages of water treatment, such as filtration, sedimentation, and disinfection, while emphasising the significance of conserving water and protecting the environment.	Video	**Link**

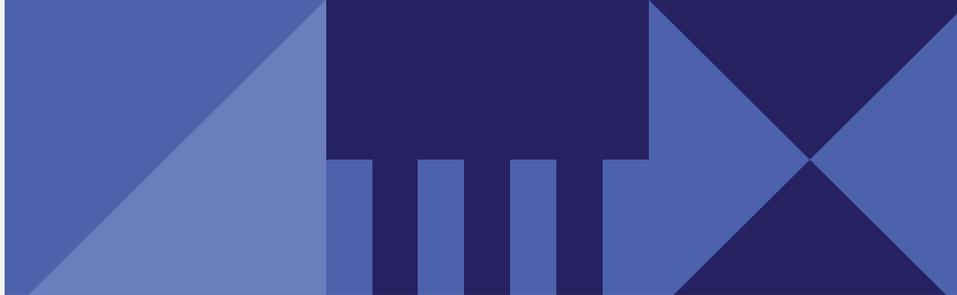| Title	Description	Type	Accessible at:
The three Rs: Reduce, Reuse, and Recycle	A short YouTube video focusing on the three Rs: Reduce, Reuse and Recycle; essential concepts on sustainable waste management. It explains how these practices help to protect the environment by minimising waste and conserving resources, as well as adopting eco-friendly habits. It is targeted mainly towards younger ages and students in primary education.	Video	**Link**
Proper Waste Management | How waste reduction and recycling help our environment	A short YouTube video focused on the importance of waste management. It explains how reducing waste, reusing materials, and recycling can significantly benefit the environment by conserving resources, reducing pollution, and minimising landfill use. It is mainly oriented for students in secondary education.	Video	**Link**
Case studies and good practices			
German Good Practices	The Federal Ministry of Education and Research in Germany hosts a website dedicated to the German National Action Plan on ESD adopted on June 2017. Among others, this website has a specific section on good ESD practices from all across Germany. Examples of such good practices include a project directed towards students-run companies and cooperatives at schools with a focus on sustainability; an event series with a focus theme at a German university to raise awareness and knowledge-sharing on sustainable development and a european educational initiative to deal with the role of large carnivores in Europe.	Portal	**Link**
Case Study Guide for Educators 2024	This guide showcases strategies educators used across the globe to integrate ESD into their teaching. Through a collection of case studies from diverse international contexts, it highlights innovative approaches for engaging schools, incorporating SDG initiatives into curricula, and fostering a culture of sustainability within educational institutions. Examples of such good practices include the alignment of SDGs to Curriculum through the use of news stories, the implementation of workshops for educators, and the creation of nests for animals with pinecones.	Guide	**Link**
A Classroom with a Mission – National Geographic | Education	An educator at a primary education school in Idaho, designed an initiative so her students can tackle the local plastic pollution in Idaho's waterways. By measuring pollution levels and developing solutions with the support of local researchers and businesses, they actively contribute to environmental sustainability. This hands-on approach not only fosters problem-solving and collaboration but also instills a sense of responsibility and impact among students, connecting classroom learning with real-world environmental challenges. The **National Geographic website** offers numerous similar initiatives.	Video	**Link**

Title	Description	Type	Accessible at:
Cycling on Nature's Wheels	"Cycling on Nature's Wheels" is an Erasmus+ project aimed to bridge the gap between academic knowledge and practical environmental behaviour, fostering sustainability, entrepreneurship, and lifelong learning among students. Schools from 7 European countries implemented interdisciplinary and interactive activities, including outdoor environmental actions, recycling initiatives, and awareness campaigns. Teachers employed modern pedagogical methods to engages students, particularly those at risk of early school leaving, promoting inclusive education.	Project	**Link**
Blast the Plast	"Blast the Plast" is an Erasmus+ project, co-funded by the European Commission, that brough together 3 secondary schools from Germany, Iceland, and Sweden to address plastic pollution and promote responsible citizenship. The aim of the project was to raise awareness among students about the environmental impact of single-use plastics and empower them to take action. Students got involved in activities such as analysing waste disposal systems and comparing national recycling strategies, testing zero-waste lifestyles and developing a "Plastic-Free School" action plan as a way to promote sustainable practices.	Project	**Link**
Funding resources			
Erasmus+	Erasmus+ is the EU's programme for education, training, youth, and sport, promoting cross-border collaboration and innovation in learning. It supports educators and schools through funding for mobility, partnerships, and professional development, fostering inclusive and high-quality education. Despite not exclusive to ESD, Erasmus+ enables teachers to exchange best practices, develop innovative curricula, and participate in sustainability-focused training.	Funding programme	**Link**
eTwinning	eTwinning is a community for schools, offering a collaborative space where teachers and school staff develop national and international projects. It provides a secure platform for educators and students to connect with European schools, engage in online discussions, and participate in peer learning and professional development activities. It is not exclusively targeted to sustainability-related topics, however teachers and educational institutions may engage in ESD activities and practices.	Funding programme	**Link**
European Funding Guide	The **European Funding Guide** offers a comprehensive platform to help students and educational institutions find financial support for their education. It provides access to thousands of scholarships, grants and other funding opportunities across Europe. The service is free and aims to ensure greater transparency and accessibility to financial aid across Europe. Even though not exclusive to ESD funding, resources provided in the portal can be useful for seeking funding on sustainability-related topics.	Portal	**Link**

References

Adams, M., Bell, L. A., & Griffin, P. (Eds.). (2007). Teaching for diversity and social justice (Vol. 2). New York: Routledge.

Altschuld, J. W., & Lepicki, T. L. (2009). Needs assessment. Handbook of Improving Performance in the Workplace: Volumes 1-3, 771-791.

Bianchi, G., Pisiotis, U. and Cabrera Giraldez, M. (2022). GreenComp The European sustainability competence framework, Punie, Y. and Bacigalupo, M. editor(s), EUR 30955 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-46485-3, doi:10.2760/13286, JRC128040.

Cebrián, G., Mogas, J., Palau, R., & Fuentes, M. (2022). Sustainability and the 2030 Agenda within schools: A study of school principals' engagement and perceptions. Environmental Education Research, 28(6), 845–866. **https://doi.org/10.1080/13504622.2022.2044017**.

Clavero, S., & Galligan, Y. (2021). Delivering gender justice in academia through gender equality plans? Normative and practical challenges. Gender, Work & Organization. **https://doi.org/10.1111/GWAO.12658**.

Community Tool Box (n.d.). Section 1. An Overview of Strategic Planning or "VMOSA" (Vision, Mission, Objectives, Strategies, and Action Plans). **https://ctb.ku.edu/en/table-of-contents/structure/strategic-planning/vmosa/main**.

Community Tool Box (n.d.). Section 1. Developing a Plan for Communication. **https://ctb.ku.edu/en/table-of-contents/participation/promoting-interest/communication-plan/main**.

Community Tool Box (n.d.). Section 14. SWOT Analysis: Strengths, Weaknesses, Opportunities, and Threats. **https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main**.

Council of Europe (2024). Education Strategy 2024-2030. **https://rm.coe.int/education-strategy-of-the-council-of-europe-2024-2030/1680aee0c4**.

Council of Europe (n.d.). Education for Sustainable Development. **https://www.coe.int/en/web/reference-framework-of-competences-for-democratic-culture/education-for-sustainable-development**.

EU Science Hub (n.d.). GreenComp conceptual reference model. **https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework/greencomp-conceptual-reference-model_en**.

European Education Area (2022). Learning for the green transition and sustainable development. **https://education.ec.europa.eu/news/learning-for-the-green-transition-and-sustainable-development**.

European Education Area (n.d.). Toolkit for school success. **https://school-education.ec.europa.eu/en/discover/toolkit-school-success**

Ferguson, T., Roofe, C., & Cook, L. D. (2021). Teachers' perspectives on sustainable development: the implications for education for sustainable development. Environmental Education Research, 27(9), 1343–1359. **https://doi.org/10.1080/13504622.2021.1921113**.

Filho, W., Pallant, E., Enete, A., Richter, B., & Brandli, L. (2018). Planning and implementing sustainability in higher education institutions: An overview of the difficulties and potentials. International Journal of Sustainable Development & World Ecology, 25(7), 713-721. **https://doi.org/10.1080/13504509.2018.1461707**.

Filho, W., Will, M., Salvia, A., Adomssent, M., Grahl, A., & Spira, F. (2019). The role of green and sustainability offices in fostering sustainability efforts at higher education institutions. Journal of Cleaner Production. **https://doi.org/10.1016/J.JCLEPRO.2019.05.273**.

Gabriel, J. G., & Farmer, P. C. (2009). How to help your school thrive without breaking the bank. Association for Supervision and Curriculum Development.

Gesser, M., & Martins, R. (2019). Contributions of a teacher training program to inclusive education. Paidéia (Ribeirão Preto). **https://doi.org/10.1590/1982-4327E2907**.

Gevers, J., Eerde, W., & Rutte, C. (2001). Time pressure, potency, and progress in project groups. European Journal of Work and Organizational Psychology, 10(2), 205-221. https://doi.org/10.1080/13594320143000636.
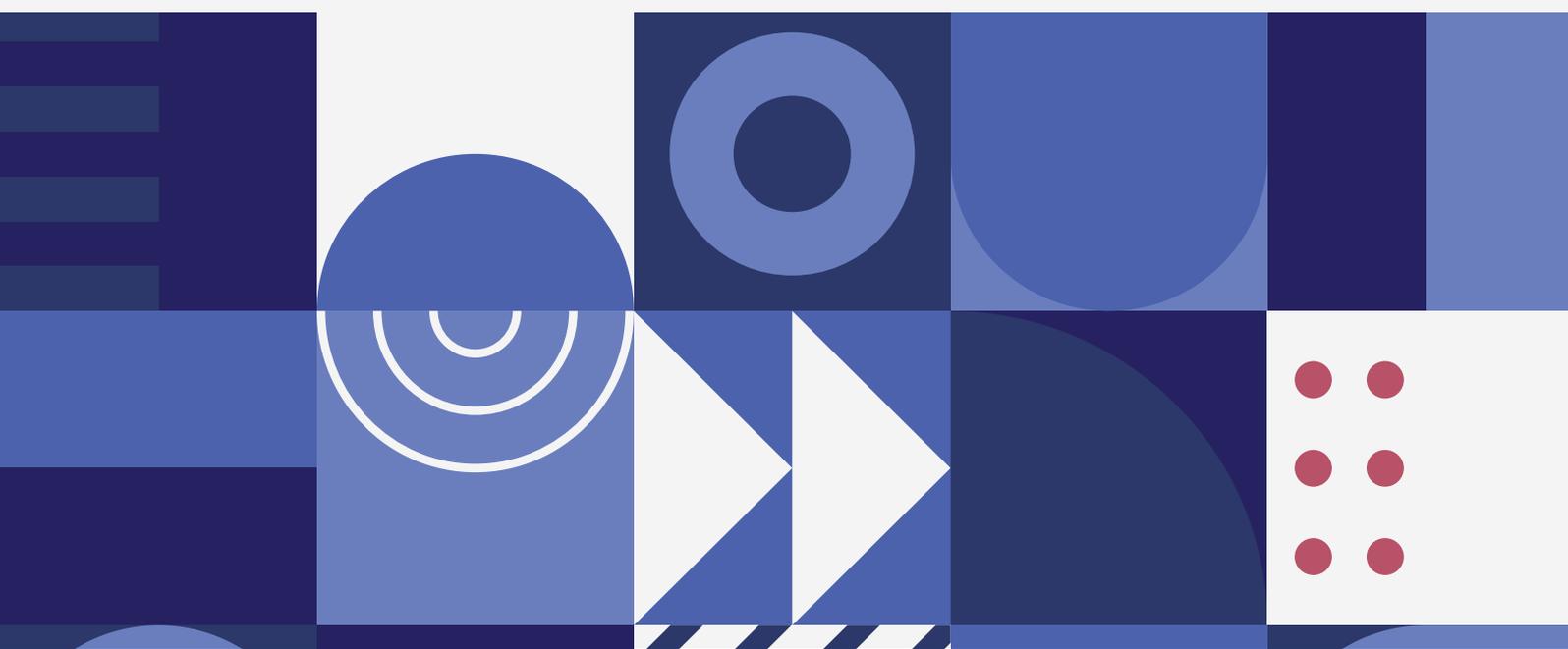
Gottschalk, F. and C. Weise (2023), Digital equity and inclusion in education: An overview of practice and policy in OECD countries, OECD Education Working Papers, No. 299, OECD Publishing, Paris, **https://doi.org/10.1787/7cb15030-en**.

Guide for sustainability plans for educational organisations (2024). *Applying a multi-stakeholder and whole-institutional approach to education for sustainability (AELIA) project*.

Hamwy, N., Bruder, J., Sellami, A., & Romanowski, M. (2023). Challenges to teachers implementing sustainable development goals frameworks in Qatar. Sustainability. https://doi.org/10.3390/su151511479.

Hinduja, P., Mohammad, R., Siddiqui, S., Noor, S., & Hussain, A. (2023). Sustainability in higher education institutions in Pakistan: A systematic review of progress and challenges. Sustainability. https://doi.org/10.3390/su15043406.

Holst, J. (2023). Towards coherence on sustainability in education: A systematic review of whole institution approaches. Sustainability Science, 18, 1015-1030. https://doi.org/10.1007/s11625-022-01226-8.

Istituto Europeo di Design (2024). Communication Plan: a practical example. **https://www.ied.edu/news/communication-plan-a-practical-example**.

Kadji-Beltran, C., Zachariou, A., & Stevenson, R. (2012). Leading sustainable schools: Exploring the role of primary school principals. Environmental Education Research, 19(3), 303-323. **https://doi.org/10.1080/13504622.2012.692770**.

Kioupi, V., & Voulvoulis, N. (2019). Education for sustainable development: A systemic framework for connecting the SDGs to educational outcomes. Sustainability, 11(21), 6104. https://doi.org/10.3390/su11216104.

Kvelde, A., & Odiņa, I. (2023). The notion of sustainable team management in educational institution. To Be or Not to Be a Great Educator. https://doi.org/10.22364/atee.2022.22.

Lomba-Portela, L., Domínguez-Lloria, S., & Pino-Juste, M. R. (2022). Resistances to Educational Change: Teachers' Perceptions. Education Sciences, 12(5), 359. **https://doi.org/10.3390/educsci12050359**.

Luptacik, P., & Smith, H. (2014). Digital handbook for local authorities for school-community collaboration. CoDes. **https://sch.cy/mc/822/epimorfosi_digital_handbook.pdf**.

MEASURE Evaluation (2017). Monitoring and Evaluation Capacity Assessment Toolkit: Overview. **https://www.measureevaluation.org/resources/publications/fs-17-218_en.html**.

Milner, H. R. (2009). What does teacher education have to do with teaching? Implications for diversity studies. Journal of Teacher Education, 61(1-2), 118−131. https://doi.org/10.1177/0022487109347670.

Morrison, M. (2016). PESTLE Analysis for Schools or Education. RapidBI.

Morton, S., Pencheon, D., & Squires, N. (2017). Sustainable development goals (SDGs) and their implementation: A national global framework for health, development, and equity needs a systems approach at every level. British Medical Bulletin, 124(1), 81-90. **https://doi.org/10.1093/bmb/ldx031**.

Newman, A. (2016). Communication planning: A template for organizational change. Center for Hospitality Research.

NIDOS (n.d.). Monitoring, Evaluation and Learning (MEL) Guide. **https://intdevalliance.scot/wp-content/uploads/2023/08/MEL_Support_Package_4th_June.pdf**.

Nor Ali, M., & Dayah A.K., (2023). Role of Effective Monitoring and Evaluation in Promoting Good Governance in Public Institutions, Public Administration Research, Canadian Center of Science and Education, vol. 12(2), pages 1-48, October.

Omotayo Adeqale, A., Chinaza, U., & Rathankoomar, N., (2024). School leadership development for sustainability in the post-digital era. **https://ujcontent.uj.ac.za/esploro/outputs/journalArticle/School-leadership-development-for-sustainability-in/9937509207691#file-0**.

Pauw, J. B.-d., Gericke, N., Olsson, D., & Berglund, T. (2015). The effectiveness of education for sustainable development. Sustainability, 7(11), 15693-15717. https://doi.org/10.3390/su71115693.

Pedagogical Institute of Cyprus. (2012). Οδηγός εφαρμογής προγράμματος σπουδών περιβαλλοντικής εκπαίδευσης. Odigos efarmogis programmatos spoudon perivallontikis ekpedefsis. **https://archeia.moec.gov.cy/sd/557/odigos_efarmogis_programmatos_spoudon_perivallontikis_ekpaidefsis.pdf**.

PREA (n.d.). Evaluation Toolbox. **https://evaluationtoolbox.net.au/?option=com_content&view=article&id=51&Itemid=131**.

Quinn, L. (2011). Understanding resistance: an analysis of discourses in academic staff development. Studies in Higher Education, 37(1), 69–83. **https://doi.org/10.1080/03075079.2010.497837**.

Ramísio, P., Pinto, L., Gouveia, N., Costa, H., & Arezes, D. (2019). Sustainability strategy in higher education institutions: Lessons learned from a nine-year case study. Journal of Cleaner Production. https://doi.org/10.1016/J.JCLEPRO.2019.02.257.

Rampasso, I., Siqueira, R., Anholon, R., Silva, D., Quelhas, O., Filho, W., & Brandli, L. (2019). Some of the challenges in implementing education for sustainable development: Perspectives from Brazilian engineering students. International Journal of Sustainable Development & World Ecology, 26(4), 367-376. https://doi.org/10.1080/13504509.2019.1570981.

Sanchez-Carrillo, J., Cadarso, M., & Tobarra, M. (2021). Embracing higher education leadership in sustainability: A systematic review. Journal of Cleaner Production, 298, 126675. https://doi.org/10.1016/J.JCLEPRO.2021.126675.

Shriberg, M. (2002). Institutional assessment tools for sustainability in higher education: Strengths, weaknesses, and implications for practice and theory. Higher Education Policy, 15(2), 153-167. https://doi.org/10.1016/S0952-8733(02)00006-5.

Silva, A., Coelho, A., Santos, H., Neto, A., Castro, A., & El-Aouar, W. (2019). Education principles and practices turned to sustainability in primary school. Environment, Development and Sustainability, 22(7), 6645-6670. https://doi.org/10.1007/s10668-019-00505-2.

Singh, B. (2023). Role of Educational Leadership for Sustainable Development. Education and Self Development.

Sleezer, C. M., Russ-Eft, D. F., & Gupta, K. (2014). A practical guide to needs assessment. John Wiley & Sons.

The Chartered Institute of Personnel and Development (2024). PESTLE analysis - Factsheet. **https://www.cipd.org/en/knowledge/factsheets/pestle-analysis-factsheet/**.

Timm, J. M., & Barth, M. (2020). Making education for sustainable development happen in elementary schools: the role of teachers. Environmental Education Research, 27(1), 50–66. **https://doi.org/10.1080/13504622.2020.1813256**.

Uitto, A., & Saloranta, S. (2017). Subject Teachers as Educators for Sustainability: A Survey Study. Education Sciences, 7(1), 8. **https://doi.org/10.3390/educsci7010008**.

UN (2006). Monitoring and Evaluating: Youth Substance Abuse Prevention Programmes. **https://www.unodc.org/pdf/youthnet/action/planning/m&e_E.pdf**.

UNESCO (2006). Education for sustainable development toolkit. **https://unesdoc.unesco.org/ark:/48223/pf0000152453**.

UNESCO (2010). Education for sustainable development lens: A policy and practice review tool.

UNESCO (2010). Strategy for the second half of the United Nations Decade of Education for Sustainable Development. https://unesdoc.unesco.org/ark:/48223/pf0000215466.

UNESCO (2021). Education for sustainable development: A roadmap (ESD 2030 roadmap). UNESDOC Digital Library. https://unesdoc.unesco.org/ark:/48223/pf0000374802.

UNESCO (2024). Green school quality standard, greening every learning environment. **https://unesdoc.unesco.org/ark:/48223/pf0000390028**.

UNESCO (n.d.). TVETiPedia Glossary.

UNICEF (2021). The UNICEF Public Finance Toolkit. **https://www.unicef.org/documents/child-rights-education-toolkit**.

University of California (n.d.). SMART Goals: A How to Guide. **https://www.ucop.edu/local-human-resources/_files/performance-appraisal/How+to+write+SMART+Goals+v2.pdf**.

Weiss, M., Barth, M., & Wehrden, H. (2021). The patterns of curriculum change processes that embed sustainability in higher education institutions. Sustainability Science, 16(6), 1579-1593. https://doi.org/10.1007/s11625-021-00984-1.

Wolbring, G., & Lillywhite, A. (2021). Equity/equality, diversity, and inclusion (EDI) in universities: The case of disabled people. SOC, 11(2), 49. https://doi.org/10.3390/SOC11020049.

Zguir, M., Dubis, S., & Koç, M. (2021). Embedding education for sustainable development (ESD) and SDGs values in curriculum: A comparative review on Qatar, Singapore and New Zealand. Journal of Cleaner Production, 319, 128534. https://doi.org/10.1016/J.J

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Capacity building guide and resources

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