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Position paper of **eucen** on Integrating Green Skills into University Lifelong Learning¹

Katrin MÄNNIK, Christina PAULUS, Tamer ATABARUT, Carme ROYO

Introduction: Our Commitment to a Sustainable Future

eucen believes that the transition to a green, sustainable future is no longer optional - it is imperative. As Europe faces unprecedented environmental challenges, our educational systems must respond to them. University Lifelong Learning (ULLL) has a fundamental role to play in educating citizens with the green skills necessary to lead and support this transition. We view ULLL as a catalyst for systemic change and a key driver of sustainable development.

Education is one of the most powerful tools in addressing climate change and environmental degradation. Through curriculum co-design, interdisciplinary approaches, and inclusive engagement, LLL can empower communities to respond effectively to global environmental, economic, and social challenges.

eucen's Role in Promoting Green Transition

eucen positions itself at the forefront of the green transition within higher education. Our network unites universities and stakeholders across Europe in advancing innovative practices, research, and policies in ULLL. We are committed to promoting sustainable development through equitable and inclusive learning opportunities.

The 2024 **eucen** Autumn Seminar, *Skills for a Greener Future: The Role of University Lifelong Learning*, served as a pivotal moment for shaping this position. The insights gathered have informed our belief that the integration of green skills into ULLL must become a strategic priority for all higher education institutions (HEIs).

The European Approach

According to Cedefop (European Centre for the Development of Vocational Training), green skills encompass the knowledge, abilities, values, and attitudes needed to work and live sustainably. The European Skills Agenda, part of the Green Deal, promotes inclusive learning opportunities for all, aiming to ensure no one is left behind in the green transition.

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During the [eucen Seminar](#), participants associated “green skills” with sustainability, environment, future, complexity, and interdisciplinarity. UNIDO² highlights three impacts of green economy transitions on skill demands: new occupations, evolving skill profiles, and updated qualifications. OECD data shows that 7–35% of jobs across regions involve “green tasks,” many of which require tertiary education³.

The ESCO platform⁴ identifies 381 green skills and relevant knowledge and transversal competences. The Council Recommendation on Learning for Environmental Sustainability⁵ and the European GreenComp framework⁶ both support integrating green skills into lifelong education. GreenComp defines sustainability competence as empowering learners to embody sustainability values, engage with complex systems, and act for a just and healthy future.

Integrating Green Skills into Curriculum Development

Integrating green skills across disciplines is a complex but necessary task. It requires problem-solving, interpersonal competences, and curriculum development aligned with labour market needs. Stakeholder engagement and validation are essential parts of the curriculum lifecycle. Flexible institutions can respond faster to green skill demands, leveraging interdisciplinary approaches.

Micro-credentials are also key. The EU Council’s 2022 Recommendation⁷ defines micro-credentials as small, focused units of learning that complement traditional education. These can be stacked, combined, or used independently, offering flexible ways to embed green competences into educational programmes.

Examples from eucen Member Countries

Estonia – Green Skills Programme (2023–2026)

Estonia’s Green Skills Programme of the Ministry of Education and Research and the Education and Youth Board fosters green transition through entrepreneurship training and curriculum development by universities and other educational institutions.

² *What are green skills?* (n.d.). UNIDO. Retrieved 29 January 2025, from <https://www.unido.org/stories/what-are-green-skills>

³ Job Creation and Local Economic Development 2023 https://www.oecd.org/en/publications/job-creation-and-local-economic-development-2023_21db61c1-en.html

⁴ See more at ESCO - European Skills, Competences, Qualifications and Occupations, which is the European multilingual classification of Skills, Competences and Occupations.

⁵ Proposal for a COUNCIL RECOMMENDATION on Learning for Environmental Sustainability (2022). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0011>

⁶ *GreenComp: The European sustainability competence framework - European Commission*. (n.d.). Retrieved 29 January 2025, from https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework_en

⁷ Council of the European Union. “COUNCIL RECOMMENDATION on a European approach to micro-credentials for lifelong learning and employability”. Brussels, May 25th 2022. <https://data.consilium.europa.eu/doc/document/ST-9237-2022-INIT/en/pdf>



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It includes reskilling, teacher training, and updated professional standards in sectors such as transport, chemistry, and environmental science. Public universities and vocational institutions collaborate on this initiative, guided by GreenComp and the new concept on green skills. Tallinn University, for example, has updated its “Green Transition Management” micro-credential programme and launched new curricula focused on sustainable human resource management and circular bio-economy.

Austria – Lifelong Learning and the Alliance of Sustainable Universities

Austrian universities, including the University of Natural Resources and Life Sciences (BOKU), integrate sustainability across research, teaching, and operations. As part of their lifelong learning strategies, they offer interdisciplinary courses and promote sustainability through research-led teaching. The Alliance of Sustainable Universities in Austria brings institutions together to develop sustainability strategies, embedded in performance agreements with the national ministry. This has led to sustainability being included in university research, teaching, and management policies.

The Alliance promotes shared responsibility and societal engagement, encouraging universities to co-develop solutions with civil society. Efforts include sustainable campus practices and awareness-raising activities aimed at supporting system-level transformation.

Turkey – Green Skills in Higher Education

Turkey has made sustainability a priority in national education policy. The Education Vision 2023 and other frameworks introduced climate change, waste management, and renewable energy into curricula. Teacher training and student projects on environmental themes are now mandated. Vocational education includes specialisations like solar energy systems and eco-friendly construction.

The Higher Education Council (YÖK) encourages integration of sustainability across disciplines. Universities offer new courses in renewable energy, circular economy, and sustainable policy. Many also operate sustainability offices, implement green campus practices, and participate in EU-funded projects on green innovation. Research initiatives such as TÜBİTAK's Green Growth programme link universities with industry to support sustainable technological development.

Lifelong learning is expanding through university-based Continuing Education Centers (SEMs), which offer certificate courses in areas like renewable energy, climate adaptation, and sustainable agriculture. Programmes like Boğaziçi University's Corporate Sustainability, Energy Academy and Teachers 2030 Academy target professionals and community members. However, challenges remain, including limited funding, unequal access, and uneven curriculum integration across institutions.

Key Enablers and Challenges in Universities

Insights from the [eucen](#) Autumn Seminar identified best practices and key barriers in integrating green skills into university systems.

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Av. Franklin Roosevelt 50 – CP 160/26. 1050 Brussels (BE)
T. +32 28 44 33 55

carrer Girona, 34i. 08010 Barcelona (ES)
T. +34 930 450 906

www.eucen.eu | office@eucen.eu



Good Practices include:

- Embedding SDGs into curriculum design.
- Promoting learner-centred, interdisciplinary approaches.
- Co-designing education with students, staff, and community actors.
- Implementing sustainable campus initiatives (e.g., green buildings, carbon footprint reduction).
- Offering practical tools like micro-credentials and blended learning.

Key Challenges include:

- Cultural and structural resistance: traditional mindsets, rigid systems, and lack of institutional alignment.
- Funding and resource limitations: overworked staff, slow processes, and local legislative hurdles.
- Skills and engagement gaps: mobilising faculty, developing leadership buy-in, and addressing stakeholder resistance.

Our Policy Recommendations

Based on member feedback and seminar discussions, [eucen](#) calls for the following action:

1. **Stronger European policies** to support sustainability education at all levels—from early childhood through adulthood.
2. **Recognition and funding** for HEIs implementing green skills and sustainability practices.
3. **Systemic support** for embedding sustainability into national higher education strategies, performance agreements, and funding frameworks.

We stress the importance of **including all learners** and avoiding the creation of new educational inequalities in the process.

Conclusions

eucen believes that green transitions are learning transitions. Universities, as anchors of innovation, knowledge, and inclusion, must be central actors in building a just, sustainable future. [eucen](#) is committed to playing an active role in supporting universities developing tools, values, and strategies to integrate green skills into their lifelong learning programmes - ensuring no learner is left behind.

Adequate financial and sufficient support is needed to scale up our work. We therefore urge European institutions to launch more **open calls** and **funding schemes** that enable organisations like [eucen](#) to contribute meaningfully to the green transition.