



ROAD2EU WINTER SCHOOL 2025

Digital EU Sustainable Development and Green Economy Strategies: SDGs, GreenComp and Micro-Credentials

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Lecture 4

What This Lecture Covers

01

European Green Deal

02

Learning for the green transition

03

SDGs and monitoring

04

GreenComp

05

Micro-credentials



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Sustainability Is a Strategic Higher Education Issue, Not a Niche Topic

- The **green and digital transitions** (the "twin transitions") are fundamentally reshaping skills needs across Europe.
- Universities are expected to actively contribute to **sustainability**, **employability**, and broader institutional transformation.



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STRATEGIC FRAMING

Sustainability must be viewed as a core strategic imperative for higher education institutions, rather than a niche environmental topic confined to specific departments.

The European Green Deal Sets the Long-Term Direction for Education and Skills

- The Green Deal is the EU's compass for a **clean, resource-efficient, and competitive economy**.
- The overarching goal of **climate neutrality by 2050** provides the long-term direction for all sectors.

DIRECT IMPLICATIONS

Green policy is not separate from education policy. It has direct implications for education, skills development, and institutional planning.



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The 2022 Council Recommendation Bridges Climate Policy and Education Policy

- The 2022 Council Recommendation calls for **high-quality education** on sustainability and climate change.
- It serves as the main bridge between broad European climate policy and specific educational implementation.
- It encourages deep **institutional alignment** rather than superficial additions to existing programmes.

Areas Requiring Alignment:

- ▶ Institutional Strategy
- ▶ Curriculum Design
- ▶ Assessment Methods
- ▶ Educator Professional Development



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Sustainability Must Be Embedded Across the Whole Institution

- Universities should integrate sustainability into **curricula, operations, partnerships, and campus life**.
- Sustainability should **not be confined** to one specific course or an isolated administrative unit.
- A whole-institution approach ensures that policy commitments translate into lived reality for students and staff.

Curricula & Teaching

Institutional Operations

External Partnerships

Campus Life & Culture



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The SDGs Provide a Shared Language for Policy Communication and Benchmarking

- The Sustainable Development Goals (SDGs) provide a **shared framework** for policy communication and benchmarking.
- They help Higher Education Institutions (HEIs) connect **local action** with European and global agendas.
- Using SDGs allows universities to measure and communicate their broader societal impact.

SDG 4
Quality Education

SDG 8
Decent Work &
Economic Growth

SDG 9
Industry, Innovation &
Infrastructure

SDG 11
Sustainable Cities &
Communities

SDG 12
Responsible
Consumption &
Production

SDG 13
Climate Action



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Eurostat SDG Indicators Enable Evidence-Based Sustainability Planning

- **Eurostat** offers official, standardized indicators for monitoring SDG progress specifically within the EU context.
- Institutions can use these indicators as **external benchmarks** to measure their own performance.
- Integrating these metrics into institutional **dashboards** ensures alignment with broader European goals.

OPEN DATA UTILISATION

Institutions are strongly encouraged to use open data from Eurostat to inform and validate their sustainability planning and reporting.



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GreenComp Bridges Sustainability Policy and Curriculum Design

GreenComp is the European sustainability competence framework. It translates broad policy goals into **12 specific competences** organised into four interconnected areas.



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VALUES

Embodying sustainability values, supporting fairness, and promoting nature.

COMPLEXITY

Embracing complexity in sustainability, systems thinking, and critical framing.

FUTURES

Envisioning sustainable futures, adaptability, and exploratory thinking.

ACTION

Acting for sustainability, political agency, and collective action.

GreenComp Makes Sustainability Teachable and Assessable

- It supports **competence-based teaching**, clearly defined learning outcomes, and structured assessment.
- It helps embed sustainability **beyond environmental-studies programmes**, integrating it into business, engineering, humanities, and more.
- Provides a common language for educators to design cross-disciplinary sustainability modules.

UNIVERSAL APPLICATION

GreenComp ensures that sustainability is not just a theoretical concept, but a set of actionable, teachable, and assessable skills applicable across all academic disciplines.



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Micro-Credentials Are Well Suited to Green-Digital Upskilling and Reskilling

- The EU approach to **micro-credentials** supports flexible, short-form learning.
- They are explicitly designed to enhance **lifelong learning** and immediate employability.
- They allow institutions to respond quickly to emerging industry needs without overhauling entire degree programmes.

RAPID TRANSITION TOOL

Micro-credentials are particularly useful in periods of rapid transition, making them the ideal vehicle for targeted green and digital upskilling.



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A Five-Element Template for Designing a Green-Digital Micro-Credential

1

Learning Outcomes

Clearly defined and explicitly aligned with frameworks like GreenComp.

2

Clear Workload

Transparently measured, typically using ECTS credits for standardisation.

3

Applied Assessment

Practical, real-world tasks that demonstrate acquired competences.

4

Quality Assurance

Subject to rigorous institutional validation and continuous review processes.

5

Recognition & Stackability

Designed to be integrated into larger degree programmes or professional pathways.



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Three Practical Institutional Actions to Start Now

ACTION 01

Audit Curricula

Systematically review existing study programmes against the GreenComp framework and selected, highly relevant SDGs.

ACTION 02

Create a Dashboard

Develop a small, focused sustainability dashboard using Eurostat indicators to track institutional progress and impact.

ACTION 03

Pilot a Micro-Credential

Design and launch a targeted green-digital micro-credential to test flexible learning pathways and upskilling models.



Selected References

- ▶ **European Commission.** *Digital Education Action Plan 2021–2027*. COM(2020) 624 final. Brussels, 2020.
- ▶ **European Commission.** *European Strategy for Universities*. COM(2022) 16 final. Brussels, 2022.
- ▶ **Joint Research Centre (JRC).** *European Framework for the Digital Competence of Educators (DigCompEdu)*. Publications Office of the European Union, 2017.
- ▶ **National Research Institutes.** *Polish E-learning Quality Research*. Various institutional reports on student perceptions and digital quality assurance, 2023-2024.

Note: This lecture combines EU policy guidance with practical institutional evidence to provide a comprehensive view of digital transformation.



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Questions & Discussion

- ? Where does digital transformation most often fail in your experience:
in **technology**, **pedagogy**, **governance**, or **support**?

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