National VET Team



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Competence and Skills Development in VET

Skills needed in VET for the green transition

TEMPUS PUBLIC FOUNDATION

EUROPEAN UNION

Erasmus+

The Future of Learning

Introduction



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MAIN OBJECTIVES

- **Define / Redifine the role of education in preparing a generation of students who prioritize sustainability and mental well-being more than any generation before.**
- **Generate creative, budget-friendly strategies to promote sustainability and well-being within educational systems.**
- **Explore various perspectives on the meaning of sustainability in education, exchange of good practices.**

SUSTAINABILITY

„Sustainable development is development that meets the ***needs of current generations without compromising the ability of future generations to meet theirs.”***

MENTIMETER

Which one word comes to your mind when you think of sustainable VET?



Paste Mentimeter QR code here

SCAN THE QR CODE

THE EYE OPENING PROJECT

- Develop, test, and disseminate an integrated pedagogical framework that strengthens both mental wellbeing and sustainability competences in vocational education.
- The project develops and pilots an integrated a TwinCompetence Ambassador training programme, and digital badge constellations that support and recognize teachers' learning.
- The project enables educators to create psychologically safe, agency-enhancing and sustainability-oriented learning environments. Project aims to strengthen educators' capacity to deliver teaching that supports these Twin Competences.
- Co-created teaching materials and national pilots ensure practical uptake, while dissemination activities support wider European adoption of this dual-competence approach.

THE EYE OPENING PROJECT

- KA2 PROJECT: **TWIN-COMP - Pedagogy for Twin Competence: Mental Wellbeing and Sustainability**
- 6 partners
- Duration: 2026-2029
- Background:
  - **Teachers' professional competences are among the strongest predictors of student learning outcomes and wellbeing.** Teachers are central in creating psychologically safe and sustainability-oriented learning environments.
  - **Sustainability competence and mental wellbeing should be viewed as equal and mutually reinforcing capacities** rather than hierarchical or separate domains. Same elements in pedagogy supports them both.
  - **Both, mental wellbeing competences and sustainability competences can be seen as civics.**


SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

3-30-300 METHOD

The 3-30-300 rule is an urban greening framework introduced in February 2021 by Dutch urban forestry.



source: https://trekontoret.no/wp-content/uploads/2025/02/The-330300-Handbook-1.pdf

3-30-300 METHOD – Dutch approach

The three core targets

- **3 trees:** Everyone should be able to see at least 3 mature trees from their home, school, or workplace.
- **30% canopy cover:** Each neighborhood should have at least 30% tree canopy coverage.
- **300 meters:** Every resident should live within a maximum 300-meter walk or bike ride (roughly a 5-minute walk) of a high-quality public green space or park (typically ranging from 0.5 to 1 hectare in size)

PEACEFUL SCHOOLS PROGRAMME

- Research-based approach: Developed by psychiatrist Stuart W. Twemlow and psychologist Frank C. Sacco, drawing on decades of research and practical experience.
- Systemic perspective: Bullying is not just an individual problem — it reflects the dynamics and climate of the entire school community.
- Three key roles: Bully, victim and bystanders.
- Collective responsibility: Schools develop tailored solutions based on their specific needs, internal resources and the active involvement of staff.

source: https://www.bekesiskolak.hu/

WELLBEING IN SCHOOL

Schools are key to the promotion of mental health and wellbeing among young people, as these are environments where they spend considerable time during their developmental years. This is why addressing the wellbeing of both pupils and teachers is at the core of the European Education Area.

It includes

- **promoting physical and mental health**
- **developing social and emotional competencies**
- **enhancing the capacity of pupils and educators to make healthy choices**
- **creating supportive environments that foster positive relationships, collaboration, learning, and personal development**

source: https://education.ec.europa.eu/education-levels/school-education/wellbeing-at-school

WELLBEING IN SCHOOL

Mental health among children and young people has become a major issue in Europe, with alarming statistics:

- **20% of school children** experience **mental health problems** during their school years.
- **One in five children** reported growing up **unhappy and anxious** about the future due to bullying, challenges with schoolwork, and loneliness.
- The **COVID-19 pandemic** has worsened these mental health difficulties, particularly among those already at risk.
- **24% of teachers** in Europe report their job having a negative impact on their **mental health**, and **22%** report the same for their **physical health**.

source: https://op.europa.eu/en/publication-detail/-/publication/cd2ef628-c14e-11ed-8912-01aa75ed71a1

PEACEFUL SCHOOLS PROGRAMME

"Changing the culture of the whole school community is essential to preventing bullying and creating a safe, supportive learning environment."

source: https://www.bekesiskolak.hu/

HUNGARIAN GOOD PRACTICES IN VET

CREATING AN ATTRACTIVE LEARNING ENVIRONMENT

One of the key pillars of Hungary's Vocational Education 4.0 strategy is creating an attractive, welcoming and inspiring learning environment. Practical initiatives, such as planting trees, introducing colourful recycling bins and greening school spaces, help create a more comfortable environment while promoting environmental awareness and students' sense of responsibility.

SCHOOL PSYCHOLOGIST SYSTEM

- Access to school psychologists supports students' emotional well-being, personal development and ability to cope with challenges.
- Psychological support can contribute to a safer, more inclusive school environment and help prevent conflicts and bullying.

ERASMUS+

SELF-AWARENESS AND PERSONAL DEVELOPMENT IN ERASMUS+ PREPARATION

Students participating in Erasmus+ mobility programmes receive preparatory handouts that go beyond practical travel information. The preparation process also includes activities that promote self-awareness, personal development and reflection, helping students better understand their strengths, expectations and goals before an international experience.

FROM SCHOOL TO SYSTEM

Green skills, regulation and the labour market

VET IS A SYSTEM, NOT JUST A SCHOOL

Five groups of actors shape which competences VET delivers

VET providers & management

schools, centres, institutions

Companies & in-company trainers

where the technology changes

Chambers & social partners

sector interests and standards

Ministries & funding bodies

regulation and funding

Research & policy

qualification frameworks and curricula

Green competences enter occupational profiles through curriculum development, sectoral qualification policy and the companies driving technological change.

Whichever seat you hold in this system: at your table, you speak from your own professional position.

THE R-FRAMEWORK

From recycling as an add-on to circularity as a design principle

- **R0** Refuse
- **R1** Rethink
- **R2** Reduce
- **R3** Reuse
- **R4** Repair
- **R5** Refurbish
- **R6** Remanufacture
- **R7** Repurpose
- **R8** Recycle
- **R9** Recover

Value and qualification gap

Smarter product use and manufacture: refuse, rethink, reduce

Extend the lifespan of products and parts

Reuse, repair, refurbish, remanufacture, repurpose

What most VET curricula train today

Useful application of materials: recycle, recover

source: Potting, Hekkert, Worrell & Hanemaaijer (2017): Circular economy: measuring innovation in the product chain. PBL, The Hague

CRADLE TO CRADLE

Materials are nutrients, not waste

Biological cycle

Biological nutrients return safely to nature and regrow

Technical cycle

Technical nutrients stay in closed loops at full value

What this means for occupational profiles

Production

Design out waste; choose materials and processes for closed loops

Maintenance

Repair, upgrade and take apart: keep products and parts in use

Product design

Design for disassembly, reuse and material recovery

source: McDonough & Braungart (2002): Cradle to Cradle. Remaking the Way We Make Things

FROM VALUE TO REQUIREMENT

EU regulation makes circularity binding for companies

2020

EU Circular Economy Action Plan

Roadmap that makes circularity a core pillar of the European Green Deal

2024

Ecodesign for Sustainable Products Regulation (ESPR)

Ecodesign rules for durability, repairability and recyclability; introduces the Digital Product Passport

2022 · revised 2026

Corporate Sustainability Reporting Directive (CSRD)

Companies report on sustainability; scope narrowed to the largest firms by the 2026 Omnibus

2023 → 2027

EU Battery Regulation (EU) 2023/1542

Recycled content, due diligence and end-of-life rules; Battery Passport mandatory from 18 Feb 2027

What was a value becomes an employer requirement: companies need staff who can deliver it.

source: Regulation (EU) 2024/1781; Directive (EU) 2022/2464; Regulation (EU) 2023/1542; Council of the EU, Omnibus I (24 Feb 2026)

BATTERY PASSPORT: A TEACHING CASE

New competence requirements in occupations that previously had none

18 Feb 2027

Battery Passport becomes mandatory

for electric vehicle, light-means-of-transport and industrial batteries above 2 kWh

Regulation (EU) 2023/1542, Art. 77

THE PASSPORT REQUIRES	OCCUPATIONS NEED
Digital product data	Data handling
Traceability	Quality assurance
End-of-life documentation	Compliance

source: Regulation (EU) 2023/1542 (EU Battery Regulation), Art. 77

SDGs: ONE SHARED REFERENCE FRAME

Two inputs, one target

4

QUALITY EDUCATION

8

DECENT WORK AND ECONOMIC GROWTH

12

RESPONSIBLE CONSUMPTION AND PRODUCTION

Sustainable institutions

Education that builds sustainability competence

Sustainable occupations

Decent work and responsible production need the right skills

Sustainable institutions and sustainable occupations are two sides of the same target.

WELL-BEING MEETS GREEN SKILLS

Sustainability content affects learners emotionally



Concern

Eco-anxiety: learners feel the weight of the topic



Hands-on, competence-oriented formats

Concrete tasks build skills and confidence



Sense of agency

Concern turns into capacity to act

Well-being and green skills do not sit side by side: they meet here.

PRACTICAL CASE: KOMBiH

Federally funded project at IBBF: qualifications for battery cell manufacturing in Berlin-Brandenburg

Competence framework along DQR / EQR levels

Leadership

Leading the transition to circular battery competence

Skilled workers

Meister and skilled workers in battery cell production

Data & KPIs

Data handling and performance indicators

TABLE DISCUSSIONS



Duration: 15 minutes + 2 minutes for reflection

Work in small groups around different tables. Each table focuses on one key question related to sustainability in VET. Discuss your ideas, share experiences, and identify practical solutions!

At the end of your discussion, agree on one key takeaway and one stakeholder (e.g. a company, ministry, chamber, or curriculum development body) who needs to take action to turn your ideas into reality.

Be ready to briefly share your conclusions with the other participants.

TABLE DISCUSSIONS - QUESTIONS



- How can we define a sustainable VET institution, and what does that require from its management, not only its teachers?
- What makes VET sustainable from a learner's point of view?
- What creative approaches can make an institution more sustainable with minimal financial resources but plenty of motivation?

TABLE DISCUSSIONS - QUESTIONS



- Which green competences do companies and the labour market expect — think of the Battery Passport as an example — and where do curricula and qualification standards not yet deliver them?
- How can cooperation between VET institutions, companies and local stakeholders support sustainability, and what would make such partnerships work in practice?
- How can sustainability be anchored in an institution in the long term (e.g. through strategy, quality assurance and indicators) rather than remain a series of one-off projects?

TAKEAWAYS FROM THE WORKSHOP

- What is your main takeaway from the workshop? - 1 post it

- What is one thing you can implement in your own institution during the current school year? - 1 post it

USEFUL LINKS

European Education Area: https://education.ec.europa.eu/

Wellbeing in school: https://education.ec.europa.eu/education-levels/school-education/wellbeing-at-school

A focus on adolescent mental health and well-being in Europe, central Asia and Canada: https://iris.who.int/bitstream/handle/10665/373201/9789289060356-eng.pdf?sequence=2

USEFUL LINKS

Teachers in Europe - Careers, Development and Well-being (Eurydice Report):
https://eurydice.eacea.ec.europa.eu/sites/default/files/teachers_in_europe_2020_chapter_6.pdf

Promoting supportive learning environments and supporting well-being at school:
https://op.europa.eu/en/publication-detail/-/publication/cd2ef628-c14e-11ed-8912-01aa75ed71a1

Schools sustainability guide
https://www.wwf.org.uk/get-involved/schools/sustainability-guide

USEFUL LINKS

SDG’s
https://sdgs.un.org/goals

Wellbeing in school
https://education.ec.europa.eu/education-levels/school-education/wellbeing-at-school

Getting Out of the Classroom and Into Nature: A Systematic Review of Nature-Specific Outdoor Learning on School Children's Learning and Development
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9149177/

USEFUL LINKS

10 most sustainable schools
https://sustainabilitymag.com/articles/top-10-most-sustainable-schools-in-the-world

Learning materials
learning-corner.learning.europa.eu/learning-materials_en?f[0]=topics_topics%3A11&page=0

Unesco schools:
https://www.unesco.org/en/aspnet

LET’S CONNECT!

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Thank you for attention!