ENVIRONMENTAL EDUCATION BY OPEN EDUCATIONAL RESOURCES FOR SUSTAINABLE COMMUNITIES

Camelia DRAGHICI, Dana PERNIU

Transilvania University of Brasov

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

The 2030 Agenda

- Adopted by United Nations Member States in 2015
- Provides a shared vision for peace and prosperity for people and the planet
- The heart of the 2030 Agenda: **the 17 Sustainable Development Goals** (SDGs) which **interconnected** aim to transform the world by providing a new policy framework https://sdgs.un.org/2030agenda

Réunion avec des représentants de l'Institut
Francophone pour le Développement Durable
de l'Organisation Internationale de la   Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)
Francohonie, Brasov, 17. October 2023
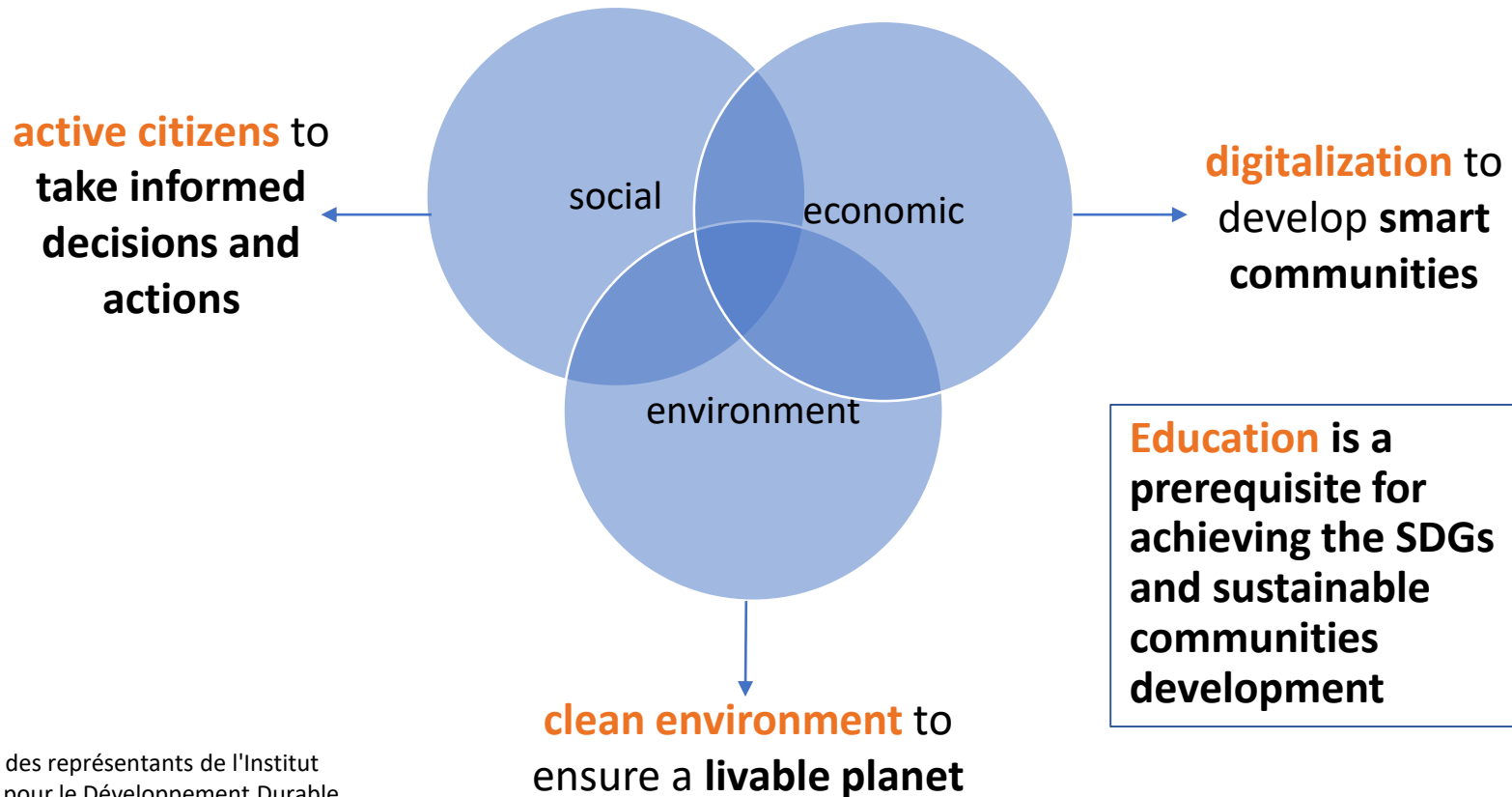
The 2030 Agenda

Romania, as a member of the United Nations (UN) and the European Union (EU), has adopted the 2030 Agenda and its 17 Sustainable Development Goals.

This strategy is **citizen-centered** and focuses on innovation, optimism, resilience, and the belief that the role of the state is to serve the needs of each citizen in a fair, efficient, and balanced manner, **all within a clean environment**.

https://ec.europa.eu/info/sites/default/files/factsheet-eu-delivering-2030-agenda-sustainable-development_en.pdf
http://dezvoltaredurabila.gov.ro/web/about/

Réunion avec des représentants de l'Institut
Francophone pour le Développement Durable
de l'Organisation Internationale de la   Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)
Francohonie, Brasov, 17. October 2023

Sustainable community

- Integrates the sustainable development **three pillars**: social, economic, environment

- Functions as a **complex open system**

- Implies **efficient administration**, based on care, involvement and knowledge

active citizens to **take informed decisions and actions**

social

economic

digitalization to develop **smart communities**

environment

clean environment to ensure a **livable planet**

Education is a prerequisite for achieving the SDGs and sustainable communities development

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

Digitalization in education – open learning

Three accepted meanings for **open learning**:

1.   **Open Universities**

2.   **Massive Open Online Courses** (MOOCs)

3.   **Open Educational Resources** (OERs)

(Report of the Joint Research Centre, of the European Commission)

Réunion avec des représentants de l'Institut
Francophone pour le Développement Durable
de l'Organisation Internationale de la
Francohonie, Brasov, 17. October 2023   Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

Open Educational Resources (OERs)

OERs are teaching, learning, and research resources available in the public domain and include:

- full courses
- course materials
- **modules**
- **texts**/ textbooks
- streaming **videos/ commented slides**
- **tests**
- software
- any other tools, materials, or techniques used to support access to knowledge

(Witthaus et al., 2016, Validation of Non-formal MOOC-based Learning: An Analysis of Assessment and Recognition Practices in Europe (OpenCred)

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

EEA Financial Mechanism – eligible states

3 Donor States (DS): Norway, **Iceland**, Lichtenstein
15 Beneficiary state (BS)
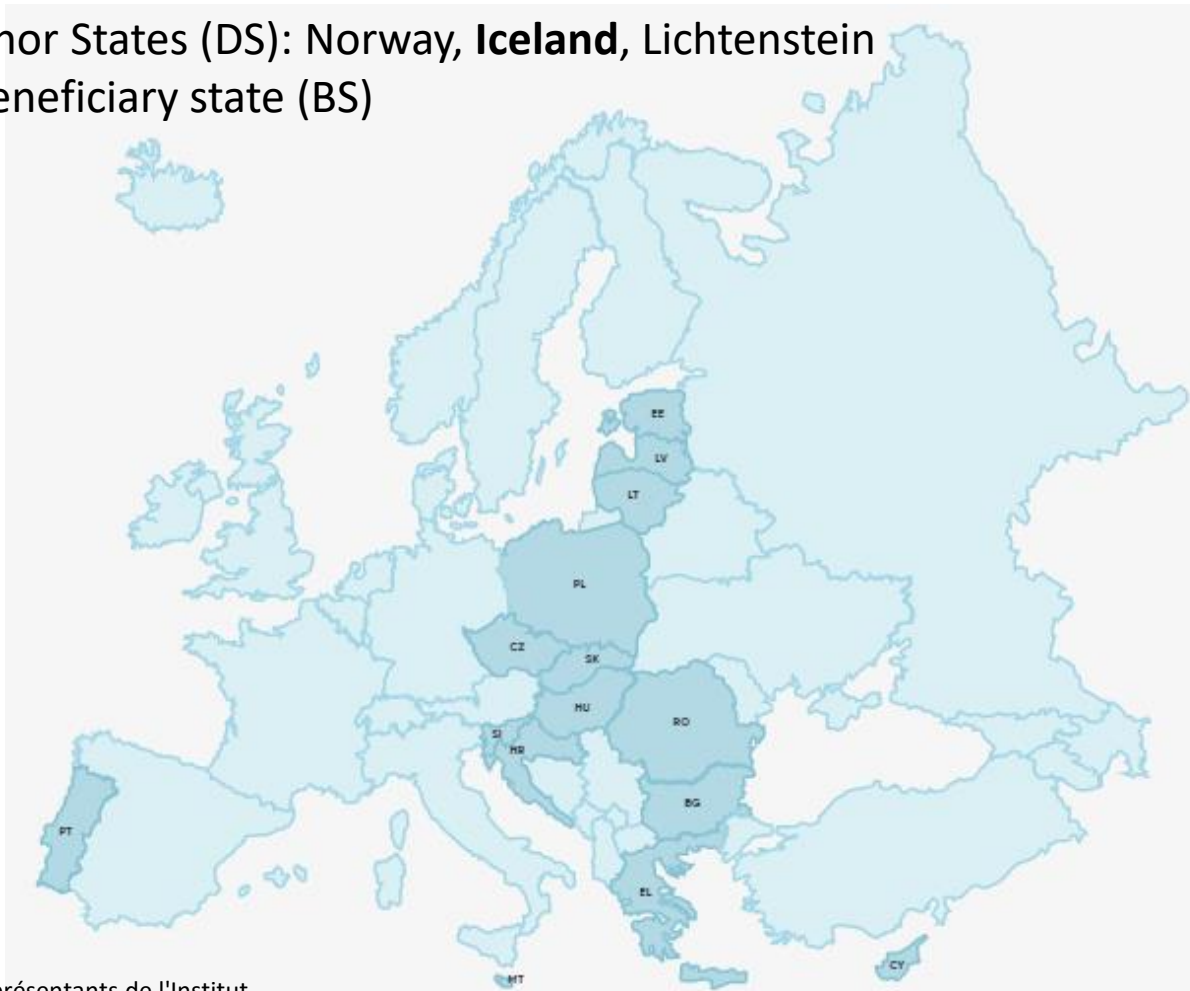
Countries List

- Bulgaria (BG)
- Croatia (HR)
- Cyprus (CY)
- Czech Republic (CZ)
- Estonia (EE)
- Greece (EL)
- Hungary (HU)
- Latvia (LV)
- Lithuania (LT)
- Malta (MT)
- Poland (PL)
- Portugal (PT)
- Romania (RO)
- Slovakia (SK)
- Slovenia (SI)

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

The Education, Scholarships, Apprenticeships and Youth Entrepreneurship Programme (ESAYEP), 2014-2021

- **ESAYEP – one of the 12 financing programmes for Romania**

- **ESAYEP – for high education**
  - mobility projects in higher education
  - **cooperation projects in higher education**
  - preparatory visits for projects in higher education

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

ESAYEP financed projects 2020 - Romania

Nr. crt.	Project title	Project promoter	DS partner
1	HE-RO-IS strategic cooperation in hematology	Universitatea de Medicina si Farmacie „Iuliu Hatieganu", Cluj-Napoca	**Reykjavik University**
2	Innovative Teaching methods for tomorrow's Renewable Energy Specialists	Universitatea din Bucuresti	**Reykjavík University**
3	Neuroaesthetics Curriculum and Module	Universitatea „Stefan cel Mare", Suceava	University of Bergen, Norwegian University of Sci. and Technology
4	SUBFLY – Students Democracy	Universitatea "Babes-Bolyai", Cluj-Napoca	University College of Southeast Norway
5	Environmental Education – OERs for Rural Citizens (EnvEdu-OERs)	**Universitatea Transilvania din Brașov** Nov. 2020 – Oct. 2023	**Reykjavik University**

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

EnvEdu-OERs project partners
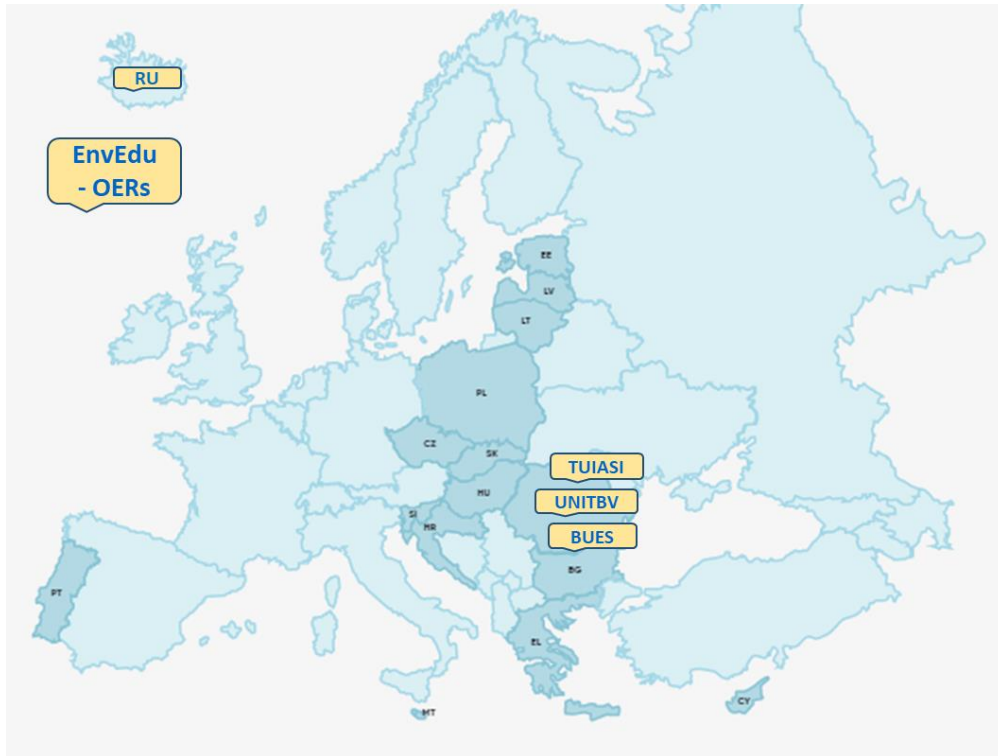
- ◘ Transilvania University of Brasov UNITBV

- ◘ Reykjavik University RU

- ◘ Bucharest University of Economic Studies BUES

- ◘ "Gheorghe Asachi" Technical University of Iasi TUIASI

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

Project objectives

- **To develop intellectual outputs** – specific training resources
  - O1 – 6 teaching modules, as OERs
  - O2 – 4 conference papers
  - O3 – 1 e-learning platform
    - project website
  - O4 – 1 set of policy recommendations
- **To implement project events**
  - 3 transnational project meetings (TPM) – 2*UNITBV + RU
  - 2 multiplier events (ME) – TUIASI + 2*UNITBV
  - 2 workshops – RU + BUES

Survey for rural local public administration representatives
- education needs

Réunion avec des représentants de l'Institut
Francophone pour le Développement Durable
de l'Organisation Internationale de la   Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)
Francohonie, Brasov, 17. October 2023

Intellectual outputs – O1 Teaching Modules OERs

Module	Module title	Responsible partner
M1	Sustainable Communities and Social Communication	**UNITBV** + RU
M2	Environmental Quality	**UNITBV** + RU
M3	Environmental Management, Impact and Risk Assessment	**TUIASI**
M4	Waste Management in Rural Communities	**TUIASI** + UNITBV
M5	Water Resources and Water Balance for Sustainable Community	**RU** + TUIASI
M6	Environmental Projects Management	**BUES**

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

OERs development / module

- 1 **video** introduction to the module – TM coordinator
  - **at least 3 min.**
- **textual** introduction to the module – TM coordinator
- **video lessons** and/ or commented slides – OERs developer/ author
  - **min. 30 min in total**
- **text-based learning resources** – OERs developer/ author
  - **min. 30 pages**
- **2-3 intermediate tests** (self-evaluation) – OERs developer/ author
- **1 final test** (final evaluation) – OERs developer/ author
- bibliography – OERs developer/ author

Languages: English + Romanian

Réunion avec des représentants de l'Institut
Francophone pour le Développement Durable
de l'Organisation Internationale de la
Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

1. Simion C.P., Anghel F., Vrîncuț M., Jiroveanu D., Draghici C., Finger D.C, **Environmental Projects Management in Romania and Iceland – Comparative Analysis Based on Case Studies and Good Practice Elements**
http://conferinta.management.ase.ro/archives/2022/pdf_IMC_2022/1_20.pdf

2. Salca Rotaru C., Draghici., Finger D.C, **Tools for the Adequate Application of the Environmental Legislation for the Waste Management**
http://conferinta.management.ase.ro/archives/2022/pdf_IMC_2022/1_22.pdf

3. Draghici C., Simion C. P., Teodosiu C., Finger D.C., **Environmental Education – OERs for Rural Citizens. Project Management and Result**
http://conferinta.management.ase.ro/archives/2022/pdf_IMC_2022/2_14.pdf

4. Salca Rotaru C., Draghici., Finger D.C, **Open Educational Resources for Learning Waste Management in Rural Communities,** Bulletin of the Transilvania University of Brasov, in press

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

Intellectual outputs – O3 learning platform

- hosted by the UNITBV server

- https://edu.unitbv.ro/course/index.php?categoryid=44
  - UNITBV team
    - training – online meeting
    - tutorials for creating the account and connecting to the Moodle platform (for teachers and students)
    - administration and maintenance
  - BUES, TUIASI & RU teams
    - connected as teachers
    - uploading documents

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

Intellectual outputs – O4 Policy recommendations

Brochures, Romanian and English versions

1. **Waste Management in Rural Communities. Legal Approach and Recommendations**

   - responsible partner **TUIASI**
   - contribution from UNITBV

2. **Policy Recommendations for the Conception, Planning and Implementation of Environmental Projects as well as for the Involvement of Citizens in Maintaining a Clean Environment in Rural Communities**

   - responsible partners **BUES** and **UNITBV**

Project events

Transnational project meetings (TPM)

    TPM1 – January 2021, UNITBV, online

    TPM2 – 16-18 May 2022, RU

    TPM3 – 9-11 March 2023, UNITBV

Multiplier events (ME)

    ME1 – 27 May 2022, TUIASI

    ME2 – 20 October 2022, UNITBV

    ME3 – 27 October 2022, UNITBV

Workshops (C)

    C1 – 19 May 2022, RU

    C2 – 4 November 2022, BUES (IMC2022)

Réunion avec des représentants de l'Institut
Francophone pour le Développement Durable
de l'Organisation Internationale de la
Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

Dissemination and communication

More publications

1. Perniu D., Manciulea I., Salca Rotaru C., Draghici C. (2021) **Open Educational Resources for Environmental Education.** In: Auer M.E., Centea D. (eds) Visions and Concepts for Education 4.0. ICBL 2020. Advances in Intelligent Systems and Computing, vol 1314. Springer, Cham.
https://doi.org/10.1007/978-3-030-67209-6_35

2. Finger D.C., Draghici C., Perniu D., Smederevac-Lalic M., Halbac-Cotoara-Zamfir R., Sehic A., Kapović Solomun M., **The Importance of International Collaboration to Enhance Education for Environmental Citizenship,** Sustainability 2021, 131, 326.
https://doi.org/10.3390/su131810326

3. Simion C.-P., Draghici C., Vrincuț M., Jiroveanu D.-C., Anghel F., A Comparative Analysis of Time, Cost and Risk Approaches in Romanian and Icelandic Environmental Project Management, Proceedings of the 15th International Management Conference "Managing People and Organizations in a Global Crisis", 4th– 5th November 2021, Bucharest, Romania, 2021, 90-98.
http://conferinta.management.ase.ro/archives/2021/pdf%20IMC%202021/1%20pdf%20S1%20IMC%202021/1_9.pdf

Réunion avec des représentants de l'Institut Francophone pour le Développement Durable de l'Organisation Internationale de la Francohonie, Brasov, 17. October 2023

Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)

Dissemination and communication

Conferences participations and presentations

- Chimia 2020

- RESOURCEFUL CITIES 6th Transnational Meeting – Mid Term Reflection (Bucharest 2021)

- International Conference on Environmental Engineering and Management (ICEEM 2021, 2023)

- International Management Conference (IMC 2021, 2022)

ANPCDEFP dissemination

Multiplier events (TUIASI & UNITBV) – press communications

UNITBV News Letter

Project website hosted by the UNITBV server http://envedu.unitbv.ro/en_US/

Réunion avec des représentants de l'Institut
Francophone pour le Développement Durable
de l'Organisation Internationale de la   Environmental Education – OERs for Rural Citizens (EnvEdu – OERs)
Francohonie, Brasov, 17. October 2023

You are invited to visit the EnvEdu-OERs project website

http://envedu.unitbv.ro/en_US/