

Ecology Squared



EEA GRANTS 2014-2021

Ecology – four perspectives of the squared:

- Natural science/Technological and economic opportunities and challenges
- Communication, transparency/openness (the process)
- Securing democratic core values (Society spin-off's)
- Digital opportunities and challenges (design)

About the project

The project is funded by the EEA Funds 2014-2021, through which Iceland, Liechtenstein and Norway contribute to reducing economic, social disparities in the European Economic Area and strengthening cooperation with 15 European countries.

Project type	Institutional cooperation project	Programme	Education
Project name	Ecology Squared	Project No	EHP-CZ-ICP-2021

The program is mediated by the House of Foreign Cooperation (DZS). It is a contributory organization of the Ministry of Education, Youth and Sports of the Czech Republic, which administers international activities in the field of education.

Duration: 01/08/2020 – 31/07/2022 – Due to Covid 01/08/2021 – 31.07/2023



Who implements the project?

The principal investigator of the project: **Technical Secondary School, Most, contributory organisation, Czech Republic**



The Technical Secondary School in Most is a comprehensive educational facility in the Czech Republic. Approximately 1,000 pupils in 3-year and 4-year fields study here, focusing mainly on mechanical engineering, electrical engineering, construction, and last, but not least, economics, administration, computer technology, horse breeding and safety and legal activities.

Project Partners:

1. RE INNOVASJON AS, BODØ, NORGE

The Creative Recycling Centre is an innovative and future-oriented competence centre in the field of recycling innovations. The centre works with numbers of activities focusing on the environment, creative learning processes, empowerment, entrepreneurship and innovation.



2. STUDIEORGANISASJONEN FOLKEUNIVERSITETETS FAGSKOLE AS, NORGE.

The Vocational school is a non-profit educational institution owned by Folkeuniversitetet; whose goal is to contribute to a more meaningful life for the individual and to promote lifelong learning and equality in access to education. It operates in seven regions with 40 campuses and 23 member organizations.



Who implements the project?

NORWEGIAN CO-OPERATIVE PARTNERS (cooperation based on signed agreements between the partners and co-partners) :

1. BODØ UPPER SECONDARY SCHOOL



Upper Secondary school with 1350 students and 330 employees focusing on mechanical engineering, electrical engineering, building/construction, aviation, health and upbringing, Music, Dance, Drama, Restaurant and Food subjects, Sales & Service, Travelling, Hairdressing and Study specialisation.

2. NORD UNIVERSITET



The Centre for Ecological Economics and Ethics focuses on issues placed in the intersection of economics, nature and culture. The Centre for Ecological Economics and Ethics works on the idea that many of the challenges we face today cannot be solved without breaking down the traditional professional boundaries. Ecological economics opens up for multidisciplinary collaboration, among other things by including knowledge about ecosystems, social systems and values in economic analyses and decisions. In order to meet society's need for economists with competence in dealing with the challenges of business and industry in the intersection between economics, the environment and society, it is important to provide students with a course offering that develops both theoretical understanding and practical skills.

Why Norwegian Partners?

Partners from Norway are able to support the Czech Partner and lead by example, because the environmental policy and clean technologies adopted by Norway enable their citizens to lead a sustainable way of life.

The Czech partner – SST Most will create a strong and erudite team to meet the project goals.



What are our goals?

General objective

To support the development and sharing of innovative methods and examples of good practice in education with a consequent impact on curriculum innovation.



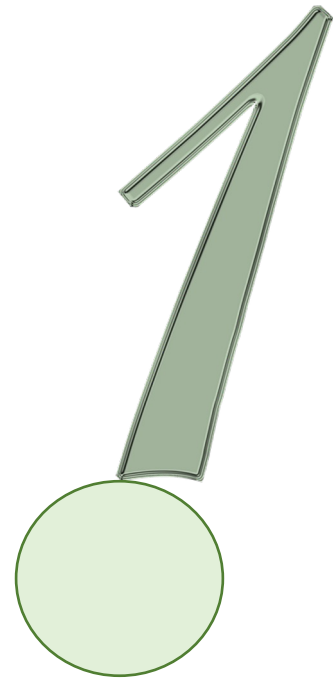
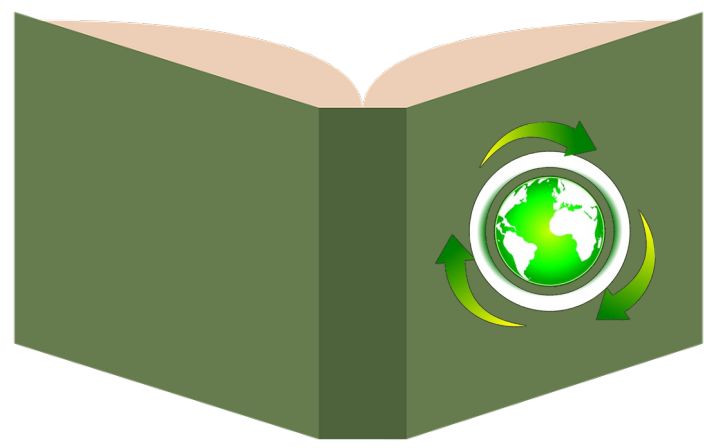
Specific objectives

To deepen and put into context the active civic attitudes of pupils and teachers and their positive significance for the protection of the environment, namely the way of creating innovative methodological materials for the adjustment of SEP.

Why are we implementing the project?

The environmental challenge is one of the greatest challenges of our time.

The subject "Ecology" is taught at SST Most only in all first years 1 lesson (hour) per week.



Why are we implementing the project?



The current state of teaching ecology at high schools:

- insufficient both the scope of teaching and the content of teaching;
- unattractive teaching;
- too general teaching;
- teaching materials with the absence of the development of all-round competencies of pupils and with the absence of emphasis on the development of their attitudes of active citizenship;
- the absence of ecology as a cross-cutting theme in the teaching of technical disciplines;
- the absence of a comprehensive concept of human-environmental relations;
- low motivation of teachers to look for attractive stimuli for teaching, etc.

Why Ecology Squared?



Ecology Squared lies in the innovative added value of developing students' responsible attitudes to life and the environment; their specific actions are completely absent from the active civic environmental attitude.

University students are concerned with obtaining information on the philosophical aspects of sustainable development, the meanings of a comprehensive concept of environmental issues and economic, legislative and social instruments that can be promoted, developed and used in the interests of sustainable development.

How do we make changes?



- together with partners from the donor state, the Czech Partner will prepare materials that eliminate the above-mentioned problems;
- They will hold joint meetings - educational events such as workshops, lectures, round tables with the aim of acquiring new relevant knowledge and good practices;
- together with partner organizations from Norway, we will prepare modular programs in individual fields;
- the created methodological materials will be verified in teaching in ecology classes, civic education and in teaching professional subjects;
- after subsequent modifications, they will be implemented in school educational plans.

What do we create?

The output will be four innovative teaching modules, three for secondary vocational school students in the Czech Republic and Norway and one for university students in Norway.



UNIVERSITY MODULE

"Ecological economics for sustainablen entrepreneurial community development»

Constituting the education plan for university students

Ecologic/Economic core module for introduction of the ecologic value chain

3 Basic modules – for Secondary/Vocational school

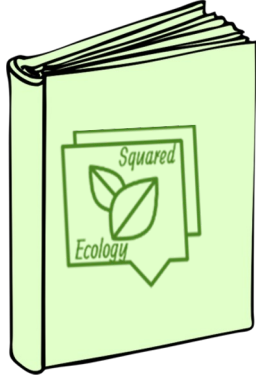
- **Building and civil engineering**
 - **Electronics**
 - **Mechanics**
- Industry and civic development, agriculture – and re-innovation in an ecologic development perspective.
- Democracy and Citizenship – in an ecologic societal perspective
- Innovation and Entrepreneurship – in an ecologic context – towards a methodology of human action

The effects of the partnership



- teaching modules will, in addition to their educational function, also fulfill an educational function;
- every field at the school, will be enriched by the implementation of elements of an active civic environmental approach in the context of its teaching;
- teaching will be more attractive, and pupils will see another dimension of the field they have chosen;
- the teaching of a given subject within one specific educational field will be enriched within the framework of environmental topics to support an active approach to environmental protection also with mathematical, ICT, communication competences, competences in the field of democracy, etc .;
- teachers will increase their competencies and acquire innovative methodological materials in which the frontal way of teaching ecology, civics and vocational subjects will be effectively supplemented and enriched with other methods and content than those offered so far by SEP.

One teaching module for universities in Norway



- The education module for university students in Norway will have a cognitive approach, where students will be able to cultivate their curiosity, seek answers to their questions, systematize it and look for patterns and connections - among other things get to know Czech history, society, democracy, how coal mining activity in a communist regime can destroy the territory
- Linking this together in an ecological /economic perspective, the target group will also be able to learn possible ways of conducting recycling, recycling innovation; the added value of this could contribute to the development of active citizenship and active societal development attitudes to how environmental problems arise, what can be done to prevent them, solve them and thus ensure the population a better quality of life in the future.
- The education module for Norwegian universities will be able to give students insight into, and competence about, how environmental problems in this scale arise, and bring in new practical perspectives in environmental education, and link this with an independent creative innovative and entrepreneurial approach to how to deal with environmental challenges in the future.