
2021



GD HIVE

STATE OF THE ART REPORT



Erasmus+

2021



Youth business activities in terms of circular economy to achieve Green Deal goals (GD HIVE) project has been financed by the European Commission, under Erasmus+ programme, Key Action 2. GA: 2020-3-AT02-KA205-002846.

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TABLE OF CONTENTS



- 01. SUMMARY**
- 02. INTRODUCTION**
- 03. METHODOLOGY**
- 04. RESULTS SUMMARY**
- 05. RESULTS PER COUNTRY**
- 06. RECOMMENDATIONS**
- 07. CONCLUSION**



WELCOME

E+ GD HIVE: Youth business activities in terms of circular economy to achieve Green Deal goals

aims to empower youth with new competencies as a long-term investment into a human capital.

To prepare a solid project baseline, partners carried out a desk and field research and prepared national state-of-the-art reports. The document in front of you **explores the legal framework, educational offer and good practices in each of the 5 EU countries** from the consortium, in Austria, Greece, Lithuania, Poland and Slovenia as well as youth competencies.

Main key gaps are identified and merged into the overall conclusion that **there is a lack of the Green Deal entrepreneurship content for young people**, making it more difficult to foster higher levels of youth participation in EU Green Deal opportunities and use their innovation potential to achieve impactful sustainability.

SUMMARY



Youth business activities in the spirit of the circular economy to achieve Green Deal goals.

The main objective of the Erasmus+ **GD HIVE project** is to provide young people with new knowledge, competences and skills related to the European Green Deal and the Circular Economy.

As the European Commission President Ursula von der Leyen stated, regarding the EU Green Deal importance: *"Our goal is to reconcile the economy with our planet, to reconcile the way we produce, the way we consume, with our planet and to make it work for our people ... This is Europe's man on the moon moment".*

This report reflects a **snapshot of the national and European Green Deal, Circular economy and entrepreneurship related landscape.**

INTRODUCTION



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National state-of-the-art reports

were prepared for:

- Austria by STRATECO,
- Greece by INNOVATION HIVE,
- Lithuania by ENTRi,
- Poland by FEIO,
- Slovenia by MIITR.



Taking into consideration all the topics analyzed within those partner's countrywide surveys, it is clear that the desirable level of understanding the importance of GD priorities and furthermore the knowledge and **actual practical use of those new business and entrepreneurship opportunities linked to the European Green Deal for youth** still needs improvements in action due to the recent implementation phases of those priorities.

Moreover, it is taken into the consideration, there are **topics that the targeted audience (mainly secondary school students/university students) need to receive in order to achieve a wholesome boost of those competencies** for sustainable and green future, we all strive for.

METHODOLOGY



FIELD RESEARCH

GD HIVE field research aimed to map existing competencies and levels of EU Green deal literacy, linked to business activity among youth and determine gaps in knowledge of our main target group, aged between 18 and 24 years.

Survey was implemented via online questionnaires distributed in Austria, Greece, Lithuania, Poland and Slovenia from April to June 2021. We gathered 286 inputs and after analysis, those are our key findings:

- In all the national analysis, majority of the respondents were female.
- In majority, they have heard about the Green Deal objectives and Circular Economy Action Plan, but they are not able to explain and discuss ideas and concepts of Green Deal and circular economy.
- Young people are generally also unable to correlate and link Green Deal and Circular Economy principles to business models and entrepreneurship.
- Most of the respondents from all 5 partner countries, strongly agreed or agreed with the statement, needing more knowledge on the topics of GD to upscale their sustainability.

RESULTS SUMMARY



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FIELD RESEARCH

- Interestingly, only in Austria, majority of the participants stated they agree of gathering sufficient knowledge on the Green Deal and Circular Economy topics discussed via their formal education. Polish, Slovenian, Greek and Lithuanian majority of respondents disagree to strongly disagree on that matter.

As the survey aimed to assess the levels of EU Green deal literacy, the Fig. 1 below shows **top-picked GD priorities per country** in regard to the most knowledge already gained by youth versus the one they wish to learn more about:

PARTNER COUNTRY	GD PRIORITY: existed knowledge	GD PRIORITY: knowledge gaps
AUSTRIA	Climate Action	Biodiversity
GREECE	From Farm to Fork	Climate Action
LITHUANIA	Clean Energy	Sustainable Mobility
POLAND	Climate Action	Sustainable Industry
SLOVENIA	Sustainable Mobility	Eliminating Pollution

RESULTS SUMMARY



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DESK RESEARCH

During the Intellectual output 1 of the **GD HIVE project**, each partner conducted a countrywide desk research, based on the predefined criteria and methodology to prepare a national report.

In the following pages, national highlights are presented per five key chapters:

- ✓ **General introduction**
- ✓ **Legal framework review**
- ✓ **Educational offer review**
- ✓ **Good practice examples**
- ✓ **Project integration & gaps**

RESULTS SUMMARY



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AUSTRIA

General introduction



The Austrian Education System is classified in the Primary level, Secondary Level and Tertiary Level.

In GD-HIVE the focus is on the target group of students of the age group of 18 to 24 years within the Upper Secondary level .



Legal framework

The legal framework for the secondary, VET and tertiary education, mainly consists of initiatives which have a mere general and broader focus on sustainability development as a whole instead of detailed information with a specific focus on Green Deal and Circular Economy and related entrepreneurship issues.

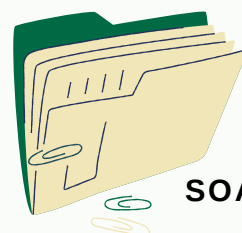
Relevant regulations and documents at the national level:

- Austrian Report on the UN Decade of Education for Sustainable Development (*Österreichischer Bericht zur UN-Dekade für Bildung für nachhaltige Entwicklung 2005 – 2014*)
- Ministry of Education, Science and Research: For one of its educational concerns the Ministry holds the “Education for Sustainable Development”

In most of the cases the framework documents for sustainable development in education in Austria are very generally written.

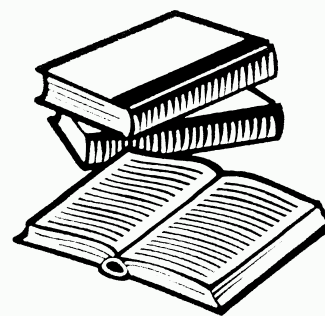


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Educational offer review



Educational curricula and related educational programmes offered in Austrian Secondary,

VET and tertiary education institutions with relation to Green Deal, circular economy and related green entrepreneurship issues were identified and are shortly presented below.

Secondary education and VET

Austrian secondary schools (*Allgemeinbildende Höhere Schulen, Höhere Bundeslehranstalten/-akademien*) regarding sustainability issues they integrate a basic understanding beginning in primary schools mainly taught in Chemistry, Geography and Economics, Biology and Environmental studies and Physics.

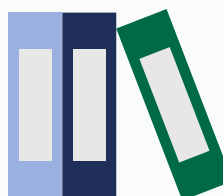
Some examples for the actual integration of partial Green Deal aspects in the syllabus the orientation of an agricultural school.

Tertiary education

In relation to Green Deal and Circular Economy the tertiary level (university level or HEIs) education programmes tackling the issues raised are manifold and mainly concentrated in BA and MAS programmes, containing contents about the following topics: Environmental System Sciences - Climate Change and Environmental Technology, cooperative study of University of Graz and Graz University of Technology; International Master's Programme on Circular Economy (CIRCLE) Masterstudium, University of Graz in cooperation with European partner Universities, focusing on the specific GD thematic areas.



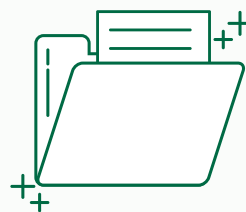
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Good practice example

Austrian good practice example Vocational education and training (VET) level.



Name: HÖHERE BUNDESLEHR- UND FORSCHUNGSANSTALT FÜR LANDWIRTSCHAFT Raumberg – Gumpenstein (<https://raumberg-gumpenstein.at/>)

Environment and Resource management focused, where content of courses offerer cover:

- Biodiversity, Farm-to-Fork, Sustainable Agriculture. Eliminating Pollution and Climate Action as well as Circular Economy.
- Production measures for a sustainable and ecological production.
- Natural resources, renewable resources, climate action, ecosystems, agricultural system and production processes.
- Agricultural and environmental technology work placement; project Circular Agronomics.

Conclusions

After extensive desk and field research, important gaps regarding Green Deal, Circular Economy and Entrepreneurship issues could be identified as the following in Austria:

- format for an integrated education for sustainable industry;
- more integrated sustainable building (now mostly focused to the technical term “smart”);
- clear farm-to-fork strategies;
- more complex topics offered (e.g. regional planning).



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GREECE



General introduction

Compulsory education has the following stages:

Early childhood education (age 0-6); Primary education

(age 7-11); Secondary Education (age 12-18); Higher/Tertiary level (from the age of 18) and open possibility of the Lifelong Learning.



Legal framework

The legal framework of the educational system at the National Level follows the path of other EU members.

In Greece, the Hellenic Ministry of the Environment, Energy and Climate Change, in 2018 has developed the National Strategy. The purpose of this document was to accelerate the actions of the circular economy and the release of growth potential.

However, in the field of education, the Ministry of Education has not defined any formal strategy regarding the circular economy or Green Deal as no national public body has taken the lead. On the other hand, schools and universities are organizing events and other activities with the aim to inform students and introduce the circular economy and Green Deal.



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Educational offer review



Educational curricula and related educational programmes offered in Austrian Secondary, VET and tertiary education institutions with relation to Green Deal, circular economy and related green entrepreneurship issues were studied and are shortly presented below.

Secondary education and VET

In general, secondary education level do not offer any specific competencies and topics under Green Deal priorities.

On the VET level (informal and non-formal education), courses are offered on the thematic fields such as: sustainability, circular economy, climate change, resource efficiency via online lectures, videos, presentations and reports available.

Tertiary education

In relation to Green Deal and Circular Economy the tertiary level (university level or HEIs) education programmes tackling the issues raised are manifold and mainly concentrated in BA and MAS programmes, containing contents about the following topics: Sustainable Environmental Change Management and Circular Economy (University of Thessaly) and Bioeconomy and Sustainable Development (University of Piraeus).

Good practice examples

Good practices identified within the HEI desk research are the supervision on writing papers and conducting research in specific subject areas and invitations to other academic and/or research staff teams in Greece or internationally.



Conclusions

In recent years, Greek society has been preparing for this radical change in its economy through the action plan of the Green Deal and circular economy. The aim is to formulate a new educational model in Higher Education, which will provide the relevant knowledge on areas of the Green Deal and circular economy for students.

Meanwhile, via Greek desk research, competencies gaps were identified, where more in-depth learning materials could be offered and are listed below as the following:

- Environmental awareness.
- Sustainability skills.
- Green technology skills.
- Innovation skills.
- Recycling skills.
- Manufacturing skills.
- Strategic and leadership skills.
- Adaptability and transferability skills.
- Communication and negotiation skills.
- Marketing skills.
- Consulting skills.
- Information technology and language skills.
- Risk analysis skills.



LITHUANIA

General introduction



Compulsory education has the following stages:

1) primary education (4 years); 2) basic (lower secondary) education (6 years); 3) upper secondary education (2 years). On average, 27 % of all upper secondary students enrol in VET programmes in Lithuania.



Legal framework

Green Deal, green entrepreneurship and circular economy are promoted through the national programmes, plans and strategies in Lithuania. They represent one of the priorities of XVIII Government of the Republic of Lithuania in the 2020-2024 period.

Circular economy issues are included into the strategy National Progress plan for 2021-2030. The plan aims to implement the Green Course – to promote the transition to a circular economy, increase productivity, reduce the negative impact of economic to the environment as well as take advantage of emerging opportunities to develop new areas of the Green Economy and increase the competitiveness of economy.

However, the Ministry of the Education, Science and Sport was not mentioned as a beneficiary in the Green Deal and Circular economy aspect.



Educational offer review

The National Educational strategy was prepared for 2013-2022 period. The terms Green Deal



and Circular Economy are not mentioned in the strategy. Taken into account the priority of the Green Deal in the official EU strategy, Lithuanian Educational strategy should be adapted to the strategic priorities.

Vocational education and training

Based on the data of VET schools, there are Architecture and Constructions programmes, Production and recycling, Business and management, Agriculture programmes. Those sectors face Green Deal issues and should have an integrated module about Green Deal and Circular Economy offered.

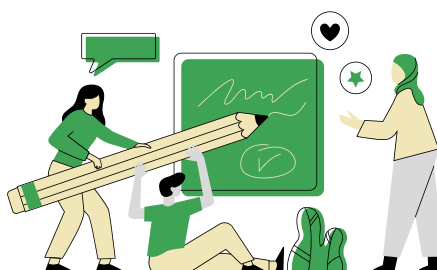
There are few good practices in the VET sector (Erasmus+ KA2) by several VET centres, like: "Development of environmentally-friendly (green) training for specialists in the construction sector" by Vilnius Jeruzalės profesinio rengimo centras; "The CIRCular Economy through Integrated LEarning in VET: CIRCLE" by Panevėžio darbo rinkos mokymo centras; "Zero Waste Cuisine for a Sustainable Future" by VšĮ Socialinės paramos projektai.

Tertiary education

In Lithuanian universities and colleges there are 4 Environmental programmes, 10 – Politics science, 26 Economics, 36 – Social and communication, 72 – Educational sciences programmes.



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Good practice examples



The project “Circular economy and zero waste society for high schools” is financed by the

Environmental Protection Department of the Vilnius City Municipality Administration and aims to encourage students and high schools to actively discuss and engage in finding circular economy solutions.

Sustain Academy is a private initiative, 3 months training program designed for those who work or want to deepen their knowledge in the field of sustainability. The training is prepared for environmental, communication, business development specialists and organizational leaders. Topics: Key functions and elements of sustainability: context, problems, value for business; The sustainable packaging: hot to build today how to prepare for tomorrow; What is green investment; EU directives in the context of sustainability; EU policies and the Green Course.

Conclusions

Until 2019 in the Lithuania there were not much focus on the Circular Economy issues, there were no strategy how integrate those initiatives in the learning curriculum.

There are good examples of private, NGOs initiatives and EU funded projects, which are covering gaps of formal education system, whereas GD topics are mentioned only partially.



POLAND



General introduction

Compulsory education has the following stages:

1) primary education (8 years compulsory); 2) secondary education (general or technical); 3) higher education (bachelor and master degree, PhD studies and post-graduate studies).



Legal framework

Education in Poland is described by 4 laws:

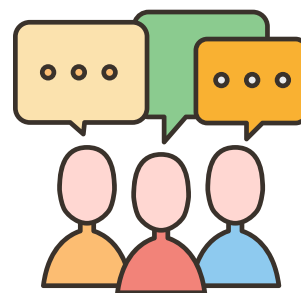
- Education Law
- The Act on the System of Education
- The Act on Financing Education
- The Teachers' Charter Act.

The Integrated Qualification System (ZSK) makes it possible to compare qualifications awarded in Poland and in other European Union countries by relating them to the levels of the Polish Qualification Framework (PRK) and through it to the levels of the European Qualification Framework (EQF).

However, Green Deal content and competencies are not emphasized in educational documents, and they only appear in the core curriculum of general education, and its outcomes.



Educational offer review



At the secondary general and vocational schools level, the core curriculum mentions: "The school

cares for the upbringing of young people in the spirit of acceptance and respect for other human beings, develops an attitude of respect for the natural environment, motivates actions for environmental protection and develops interest in ecology".

Tertiary education

In recent years, the offer of studies and courses on the topic of the circular economy has become increasingly popular. One of the larger academic centers in southern Poland, the Silesian University of Technology, has launched a new degree program "Circular Economy" in 2018/2019 corresponding to the needs of sustainable development of society. The university also offers postgraduate studies "Circular Economy and cleaner production in practice".

Another university, the AGH University of Science and Technology in Kraków, offers a one-year post-graduate studies "Business strategies in a circular economy".

Conclusions

On the secondary level, the content from the Green Deal goals can be found in the core curricula for biology and geography. However, topics have no connection to youth entrepreneurship.

The offer of tertiary studies in recent years highlights to the benefits of the circular economy, linked to entrepreneurship.



SLOVENIA

General introduction



The Slovenian education system consists of the primary, secondary, and tertiary education. The right to free education access is enshrined in the Constitution of the Republic of Slovenia.



Legal framework

In the context of the Education for Sustainable Development Snapshot Report and Global Learning in the Republic of Slovenia, prepared by the Republic of Slovenia Institute of Education in 2018, carried out a review of curriculum documents with a focus on sustainable development and global learning. Document concluded that in terms of an integrated approach to addressing sustainable development, the prevailing was the environmental aspect, while less emphasis was on the social and societal aspects.

The formal education system on topics for sustainable development uses the national "VITR Guidelines from Early Childhood Education to Post-University Education" (2007) by the Ministry for Education and Sport and the "White Paper on education in the Republic of Slovenia" (2011) prepared by the national expert group. In the next years updates are foreseen.



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Educational offer review

When looking at secondary school programs related to a circular economy, sustainable

development, Green Deal, etc., we note that schools in this area have not yet integrated these contents more intensively into their educational programs. In high schools and grammar schools, students are educated about the circular economy in non-formal education (e.g., Eco school programme).



Tertiary education (formal and non-formal)

The curriculum is much broader, with more courses specialising in the circular economy, sustainable development and (green) entrepreneurship. For example, University of Maribor offers "Circular economy in logistics" and B&B College for Sustainable Development an "Environmental systems and tools" and University of Ljubljana has "Bioeconomy".

In addition to the formal education system, the tertiary sector often offers training seminars specialised in these subjects.

Good practice examples

In the school year 2019/2020, the project E- SPACE: Eco-school promotes the circular economy will be designed at the level of Eco-Schools International. The project has been piloted only in Slovenia and Latvia, and the main activities are aimed at students of the last triad of primary and secondary school.



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Another good practice example comes from the University of Maribor, the Faculty of Chemistry and Chemical Technology and the Faculty of Mechanical Engineering and Styrian Chamber, which have carried out the project "Development of students' competencies for the circular economy."

The project provided the necessary knowledge to develop technologies and business models in the field of the circular economy. It explored the integration of CE into existing degree programs and how these could be adapted to better prepare students for the challenges of sustainable development and the circular economy.

Conclusions

In Slovenia, educational programs dealing with sustainable development and circular economy are still in their infancy, while there are few initiatives to introduce entrepreneurship to young people in Slovenia.

While on a secondary educational level, there is currently no course that is clearly focused on the circular economy, but there are courses that mention the circular economy concept.

However, within the tertiary educational level, specialized bachelor and master programmes are offered in specific Green deal priorities accordingly.

In conclusion, Slovenian system of education needs to include clear concepts on Green Deal and Circular economy in all levels.



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It is extremely important that Green Deal content and competencies **are emphasized in educational documents, that they appear in the core curriculum of general education, in educational outcomes.**

The main aim for the Green Deal topics should be **to equip young people with the knowledge of why sustainable changes are necessary, as well as to show practical tools and methods on how to achieve them** via their future career path choices.

In this way young people will **have an easier and guided direction towards becoming conscious members of society.**



The main objective of the **GD HIVE** project is to **provide young people with new knowledge, competences and skills related to the European Green Deal and the Circular Economy principles.**

National state-of-the-art reports show:

- lack of (free) courses available including contents of GD entrepreneurship for youth on all (formal) education levels across partner countries;
- based on the field research data in Austria, Greece, Lithuania, Poland and Slovenia that youth knowledge levels on those topics are not desirable;
- as consequence, young people do not participate actively enough in the GD entrepreneurship opportunities for achieving the desirable level of individual and career sustainability.

Based on the information from our desk and field research, the consortium of the **GD HIVE** project **will proceed to the development of an innovative e-course, covering all the highlighted aspects and gaps in knowledge and educational offers.**





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About the project:
[**https://greendeal-hive.eu/en**](https://greendeal-hive.eu/en)

