



Transnational Analysis no. 2

”Skills for the green and circular transition”

Activity A2.3

Project: **”ADVANCE CIRCULAR – Linking Tourism Industry with VET to embrace circularity”**

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Section I – General context

The world of work, in general and the workforce in tourism and related fields are in a continuous transformation, due to technological advances, environmental and demographic changes.

There is a growing need to focus on technical, digital and green economy skills, supported by a diversified curriculum, including circular economy knowledge, skills and attitudes.

Numerous studies and reports indicate that a redesign of education and training, a redesign of jobs in various fields, based on green skills, can be a relevant solution to meet the demands of the future.

The World Economic Forum (WEF)¹ has identified seven emerging professional clusters where they expect to see growth in the “jobs of tomorrow” (data and AI; engineering and cloud computing; people and culture; product development; sales, marketing and content; care economy; **green economy**).

In January 2022², the European Commission published a classification of skills for the green transition in European Skills, Competences, Qualifications and Occupations (ESCO)³. The classification includes 381 skills, 185 knowledge concepts and 5 transversal skills considered most relevant for a greener labour market.

Examples of “green skills” include how to conduct energy audits, **measure the sustainability of tourism activities**, as well as how to train staff on recycling programmes.

In early 2022, the European Commission also presented the European sustainability competence framework (“GreenComp”)⁴, which provides an overview of the more transversal competences for citizens need to live and work in a greener society. GreenComp comprises four interrelated competence areas:

- ✓ embodying sustainability values,
- ✓ embracing complexity in sustainability,
- ✓ envisioning sustainable futures
- ✓ acting for sustainability.

¹ <https://www.weforum.org/publications/jobs-of-tomorrow-mapping-opportunity-in-the-new-economy/>

² <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022DC0783> - COM(2022) 783 final: PROPOSAL FOR A JOINT EMPLOYMENT REPORT FROM THE COMMISSION AND THE COUNCIL

³ en_Green-Skills-and-Knowledge-Labeling-ESCO.pdf (edu.ro)

⁴ https://green-comp.eu/wp-content/uploads/2022/02/jrc128040_greencomp_f2.pdf

⁵ <ISO - Must-have skills for the green economy>



As the world progresses on its path to a more sustainable future⁵, workers are acquiring new green skills. There is a critical importance of building a skilled workforce to power the green transition. And while this is happening faster than ever before, it's still not fast enough.

According to the International Labour Organization, an estimated 24 million new jobs could be created worldwide by 2030 if the right policies to promote a greener economy are put in place.

THE INTERNATIONAL LABOUR ORGANISATION:

"Green skills span virtually every industry and come in many forms."⁶

THE TRANSITION TO A GREEN(ER) ECONOMY REQUIRES NEW SKILLS. SKILLS NEEDED FOR THE NEWLY EMERGING JOBS AND SKILLS NEEDED FOR THE ADJUSTED EXISTING JOBS. WITHOUT A SUITABLY TRAINED WORKFORCE THE TRANSITION WILL BE IMPOSSIBLE.

An integral part of the resilience of EU tourism⁷ is making sure that people have the right skills for the job they are doing – in all sectors of the tourism ecosystem.

Green and digital skills are essential.

The EU Pact for Skills is the first flagship initiative under the European skills agenda. It aims to aid the resilience and recovery of all industrial ecosystems working towards their green and digital transitions.

Large-scale skills partnership for the tourism ecosystem

In the framework of the EU Pact for Skills, each of the 14 industrial ecosystems aims to set up sectorial large-scale skills partnerships from among pact signatories and other ecosystem actors interested in reskilling and upskilling their workforce. The large-scale skills partnership for the tourism ecosystem was launched in January 2022 with over 60 members, including industry, social partners, education and training providers and regional authorities.

In this broader context, within the transnational project: **"ADVANCE CIRCULAR – Linking Tourism Industry with VET to embrace circularity"** (ERASMUS+ Program) the analysis "Skills for the green and circular transition" was developed in the four countries of the project partnership: Romania, Spain, Slovenia and Bulgaria.

⁵ [ISO - Must-have skills for the green economy](#)

⁶ <https://www.iso.org/contents/news/2022/12/skills-for-the-green-economy.html>

⁷ https://single-market-economy.ec.europa.eu/sectors/tourism/eu-tourism-transition/skills-eu-tourism-workforce_en



Section II - Transnational framework related to "Skills for the green and circular transition"⁸

For the elaboration of Analysis 2 "Skills for the green and circular transition" and the understanding of the specific national framework in each of the four countries, different strategies, work plans and studies having relevance and significance for this analysis were identified and analyzed, as follows:

ROMANIA

<p><i>The National Implementation Plan for Initial and continuing Vocational Education and Training (PNI-VET)⁹</i></p>	<p>It defines the national measures to achieve the objectives set at European level, through the Council Recommendation of November 24, 2020 on vocational education and training (VET) for sustainable competitiveness, social equity and resilience (VET Recommendation).</p> <p>Although this PNI-VET does not explicitly address green competences, there are action directions and measures that emphasize digital competences; as is known, these skills are considered to be green, contributing to the development of the green economy: "The issue of the adequacy of the skills stock to the requirements of the labor market is generated, first of all, by the changes in the economy that require permanent updates of knowledge and skills, the globalization process that accentuates the spread of technology and creates new occupations that replace some of the existing ones"¹⁰.</p> <p>One of the measures is: "The use of information and communication technology (software, platforms, etc.), in education, the training of digital skills, as indispensable necessities in a globalized world".</p>
<p><i>The National Strategy on Education for the environment and climate change 2023 – 2030¹¹</i></p>	<p>The following key aspects are highlighted¹²:</p> <ul style="list-style-type: none"> - The National Education Law was amended to include environmental

⁸ Strategies, plans, studies aimed at green skills, at national level, in general and specifically (tourism and related fields + VET in tourism) – transnational synthesis

⁹ https://www.edu.ro/sites/default/files/fi%C8%99iere/Cooperare-Internationala/2023/Romania_PNI-VET_RO.pdf

¹⁰ [Romania_PNI-VET_RO.pdf \(edu.ro\)](#), pag. 29

¹¹ [SNEM.pdf \(edu.ro\)](#)

¹² <https://www.edu.ro/sites/default/files/SNEM.pdf>, pag. 13-15



	<p>competences among the key competences that determine the training profile.</p> <ul style="list-style-type: none"> - The essential themes of education for sustainable development are addressed in the curriculum, starting from pre-school education to post-secondary education of formal education, including VET, as well as in university education. - The main theme of ESD is included/integrated in subjects/modules, in the basic curriculum or optional curriculum for the following subjects: Environmental Knowledge, Natural Sciences, Civic Education, History, Biology, Geography, Technological Education, Ecology and Environmental Protection, Sociology, Philosophy, Entrepreneurship Education, Civic and Entrepreneurial Culture, Financial Education, Environmental Improvement, Project Management, Intercultural Education, European Education, etc. <p>Another emphasis is placed on "Training and stimulating the human resource involved in teaching/transmitting information for climate change and environment education", one of the proposed measures being the inclusion of specific skills for climate change and environment education in the skills profile for teachers¹³.</p> <p>The strategy also promotes and defines the concept of "green school"¹⁴: it creates a healthy environment and that favors learning, while saving energy, resources and money. A "Green School" is a school that develops and transmits an institutional culture involved in environmental issues, that manages its resources responsibly and sustainably and that has an open attitude towards the community, establishing collaborative relationships with local stakeholders, especially on environmental, climate and sustainability themes.</p>
<p><i>The National Strategy for Green Jobs (2018-2025)</i>¹⁵</p>	<p>It aims to ensure Romania's transition towards a green economy with all the necessary implications such as: re-engineering of enterprises, development of new policies, monitoring the evolution of green jobs, as well as anticipating the needs of skills and new jobs.</p> <p>The GENERAL OBJECTIVE of this strategy is the following: ensuring sustainable employment by stimulating and capitalizing on the green job generator potential of competitive sectors¹⁶.</p>

¹³ <https://www.edu.ro/sites/default/files/SNEM.pdf>, pag. 30

¹⁴ <https://www.edu.ro/sites/default/files/SNEM.pdf>, pag. 31

¹⁵ https://mmuncii.ro/j33/images/Documente/Munca/2018/21082018_SN_Locuri- Munca_Verzi_2018-2025.pdf

¹⁶ https://mmuncii.ro/j33/images/Documente/Munca/2018/21082018_SN_Locuri- Munca_Verzi_2018-2025.pdf, pag. 50-51, pag. 54



	<p>One of the directions of action aims at "Promoting sustainable tourism" – it focuses on positioning spa tourism among the sectors with high potential for competitiveness and creating green jobs, alongside ecotourism, which is the subject of a coherent public policy in recent years, embodied in the development of a system for the certification of eco destinations - touristic.</p> <p>This one positioning of the spa sector which can be summarized by the formula "green spa tourism" is to be constituted in the main mission of a national spa tourism cluster that will bring together representatives of all local clusters, but also of central and local public administration authorities (thermal towns), as well as of the private sector (members of the Employers' Organization of Spa Tourism in Romania and other companies active in the field).</p> <p>Another direction of action is "Training and development of green skills"¹⁷, with a preponderance in the priority areas of intelligent specialization:</p> <ul style="list-style-type: none"> - bioeconomy; - information and communication technology, space and security; - energy, environment and climate change; - econanotechnologies and advanced materials.
<p><i>The National strategy for the sustainable development of Romania 2030</i>¹⁸</p>	<p>Relevant objectives of this strategy, in the context of Analysis no. 2 are the following:</p> <p>OBJECTIVE 4: QUALITY EDUCATION - Education for Sustainable Development 2030 target¹⁹ - Ensuring that all students acquire the knowledge and the skills needed to promote sustainable development, including through education for sustainable development and sustainable lifestyles.</p> <p>EDUCATION FOR SUSTAINABLE DEVELOPMENT²⁰ According to UNESCO, education for Sustainable Development is "a key tool for achieving the SDGs". Sustainable development is a paradigm based on ethics and education for Sustainable Development and aims to develop skills that help individuals to reflect on their own actions, taking into account their current and future social, cultural,</p>

¹⁷ [21082018_SN_Locuri- Munca_Verzi_2018-2025.pdf \(mmuncii.ro\)](#), pag. 56

¹⁸ [Strategia-nationala-pentru-dezvoltarea-durabila-a-României-2030.pdf \(edu.ro\)](#)

¹⁹ <https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf>, pag. 41

²⁰ <https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf>, pag. 38



	<p>economic and environmental impacts. This education must become an integral part of the quality of education, inherent in the concept of continuous learning.</p> <p>OBJECTIVE 12: RESPONSIBLE CONSUMPTION AND PRODUCTION - Transition to the circular economy THE TRANSITION TO THE CIRCULAR ECONOMY²¹</p> <p>The transition to the circular economy is an opportunity to transform the current economy into a more sustainable one, contributing to the achievement of the objectives of the 2030 Agenda. In the circular economy, the value of products, materials and resources must be maintained as long as possible, and the generation of waste reduced at a minimum.</p> <p>The circular economy must represent the Romanian contribution to the EU's effort to develop a sustainable economy. The transition to the circular economy implies a coordination of economic policies with those related to the growth of jobs in the sectors of the circular economy, the increase of investments in specific sectors, the development of social policies and innovation in the economy, combating climate change and its effects.</p>
<p><i>National Strategy for the Employment of the Labor Force 2021-2027</i>²²</p>	<p>Within Specific Objective 4: "Consolidation of the professional training system for adults for a better connection to the requirements of the labor market"²³, measures aimed at green skills are also proposed:</p> <ul style="list-style-type: none"> - the development, signing, implementation and monitoring of regional/sectoral Pacts for skills; - the organization of proactive retraining and improvement programs to capitalize on the benefits of the ecological transition - supporting the workforce in order to obtain the necessary skills to make the transition from declining sectors to growing sectors, within the green economy.
<p><i>National strategy for the training of adults in the period 2024-2027</i>²⁴</p>	<p>Specific objective 5 is focused on the development of green and digital skills of adults²⁵. It targets the priority area established at the European level - Green transition and digital transition. One of the directions of action subsumed under objective 5 is the following:</p>

²¹ <https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf>, pag. 78

²² https://mmuncii.ro/j33/images/Documente/MMPS/SNOFM_2021-2027.pdf

²³ See the strategy above, pag. 67-68

²⁴ https://mmuncii.ro/j33/images/Documente/MMSS/Strategia_nationala_formare_adulti_2024-2027_si_Plan_de_actiune.pdf

²⁵ See the strategy above, pag. 36



	<p>"Inclusion of green and digital skills in all training programs and occupational standards".</p> <p>It is emphasized that, within an emerging economy²⁶, such as circular economy, social economy, green economy, digitization, sustainable development... green and digital skills are a key factor.</p> <p>The strategy emphasizes the fact that new professions appear, job profiles and qualifications are transformed in the wider context of the green and digital transition.</p> <p>One of the proposed measures is the organization of training programs at the workplace for employees to acquire green skills - technical and non-technical²⁷.</p>
<p>g) NATIONAL STRATEGY for CONTINUOUS EDUCATION OF ADULTS 2024-2030²⁸</p>	<p>It is the most recent strategy that addresses green competences (adopted in May 2024).</p> <p>Objective 6. Stimulating the acquisition of digital skills and successfully managing the green and digital transition in adult education, with the following sub-objectives, are relevant from the perspective of Analysis 2:</p> <p><i>O6.1. Management of green and digital skills across skill levels and fields/sectors.</i></p> <p><i>O6.2. Assessment and certification of digital and green skills.</i></p> <p><i>O6.3. Provision of green and digital skills by domains/sectors.</i></p> <p>The strategy also includes sustainable development objectives, thus the emphasis is placed on:</p> <ol style="list-style-type: none"> 1) Acquiring the necessary knowledge and skills in order to promote a sustainable development of the economy and society. 2) Set of specific tools for encouragement and support introducing the concept of sustainable development in educational processes, elaborated and introduced experimentally. 3) Specific toolkits to encourage introduction the concept of sustainable development in educational and professional counseling processes.

²⁶ See the strategy above, pag. 50

²⁷ See the strategy above, pag. 56

²⁸ <https://sgg.gov.ro/1/wp-content/uploads/2024/05/ANEXA-5.pdf> (this strategy was adopted on 08.05.2024), pag. 20-21.



	<p>One of the proposed measures for Objective 6 on the Action Plan are the following:</p> <ul style="list-style-type: none"> ✚ Updating the national framework regarding the programs for training in the teaching career/occupational and training standards - by adapting to the European framework for teaching career training including the DigComp framework and the green skills framework. One of the indicators proposed is: no. of updated occupational standards with digital and green skills. ✚ Continuing professional development in educational fields targeting the environment, climate change and social sustainability. ✚ Development of the National Competence Platform to support recognition of qualifications. <p>Unfortunately, none of the measures proposed in the Action Plan have a clear application deadline.</p>
<p><i>Romania's Tourism Development Strategy - Volume 2 – Strategy and Action Plan²⁹</i></p>	<p>One of its objectives is objective 1.2. Supporting innovative development in the private sector - it is expected that the implementation of support programs for innovation and digitization dedicated to tourism generate the following results³⁰:</p> <ul style="list-style-type: none"> • Digital products dedicated to tourism SMEs. These may include supporting SMEs with a view to commercialization, through the development of hotel websites, digital offers, the creation of online catalogs. • Establishment of start-ups. When support is available and the number of tourists increases, more people will want to use their skills to become tourism entrepreneurs. • Tourism incubators that support innovative start-ups. The expertise available in business incubators can benefit every start-up. When the SME matures, it can better position itself in the market and offer better services and products. <p>Unfortunately, within the tourism strategy, there are no references to green skills, green and circular transition and green jobs.</p>

²⁹[Strategia-de-Dezvoltare-Turistica-a-României-volum-2-Strategia-și-Planul-de-Acțiune.pdf \(gov.ro\)](#)

³⁰ See the strategy above, pag. 39



<p><i>The National Strategy regarding the Circular Economy</i>³¹</p>	<p>It was adopted in September 2022 being accompanied by an ACTION PLAN for the National Circular Economy Strategy³². This Plan includes specific objectives no. 1³³: "Promotion of skills and competences in the field of circular economy" with priority action 1: "Integration of principles and skills specific to the circular economy in vocational education and training programs/VET, based on skills shortage assessments."</p> <p>The plan details this priority action 1³⁴, highlighting the need for change in 3 key areas:</p> <ol style="list-style-type: none"> 1. change of study programs and teaching methods in educational institutions. 2. changes within higher education institutions that can facilitate circularity in product design, manufacturing and distribution&marketing. 3. changes in vocational education and training systems, with a focus on essential skills that contribute to prolonging the use of products through repair, reuse and recycling. <p>Other actions of interest for Analysis 2, included in the Plan, regarding education, training and public awareness in the circular economy field, are the following³⁵:</p> <ul style="list-style-type: none"> ✓ Facilitating programs and laboratories oriented towards the circular economy, especially in higher education institutions. ✓ Promoting collaborations between industry and vocational education and training institutions to introduce training programs specific to the circular economy, considering the development of dual secondary and tertiary education throughout the country.
<p><i>European Analysis: "Learning for sustainability in Europe: Building skills and support for teachers and schools"</i>³⁶</p>	<p>In this European Analysis, for Romania it is pointed out that although there is a national strategy dedicated to environmental education³⁷, as well as measures related to the training of skills in the field, there are still important gaps, in comparison with other EU countries, regarding actions to support the objectives stated in the strategy.</p>

³¹ <https://dezvoltareurabila.gov.ro/strategia-nationala-privind-economia-circulara-13409762>

³² [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#)

³³ [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#), pag. 20

³⁴ [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#), pag. 67

³⁵ [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#), pag. 20-21

³⁶ <https://eurydice.eacea.ec.europa.eu/publications/learning-sustainability-europe-building-competences-and-supporting-teachers-and>

³⁷ See above, section (b) The National Strategy on Education for the environment and climate change 2023 – 2030



	<p>This European Analysis assesses how different countries in Europe approach environmental and sustainable development education and teacher training in this area. In Romania, sustainable development represents a trans-curricular principle, not a general objective of education and training.</p>
<p><i>CEDEFOP: "Skills anticipation in Romania" (2023 Update)</i></p>	<p>Other relevant aspects are highlighted by CEDEFOP in "Skills anticipation in Romania" (2023 Update), as follows³⁸:</p> <ul style="list-style-type: none"> ✓ The CNDIPT runs occasional forecasts regarding the demand for VET students' skills. These forecasts are carried out in association with local stakeholders to inform local and regional plans for the development of VET provision. The request for a forecast is instigated by the request of the social partners (employers and trade unions) through their lobby actions, and/or by the Ministry of Education. ✓ <u>There is no evidence of skills foresight being undertaken in Romania.</u> ✓ <u>There are no other skills anticipation exercises in place in Romania.</u> <p>Therefore, skills foresight and skills anticipation are not done in Romania, for the labor market, in general, nor for green skills.</p>
<p><i>Networks&support organizations for the circular economy in Romania</i></p>	<p>As a positive element, we can note the existence of networks and support organizations for the circular economy in Romania, which could favor and dynamize both the development of green skills and the integration of circularity in different sectors of activity:</p> <ol style="list-style-type: none"> 1. Coalition for the Circular Economy³⁹. 2. Institute for Research in Circular Economy and Environment "Ernest Lupan"⁴⁰. 3. Romanian Circular Economy Stakeholder Platform⁴¹. 4. Embassy of Sustainability in Romania⁴². 5. The Coordination Committee for the Circular Economy in Romania⁴³ - body without legal personality, with an advisory character.

³⁸ [Skills anticipation in Romania \(2023 Update\) | CEDEFOP \(europa.eu\)](#)

³⁹ <https://www.economiecirculara.eu/scop/>

⁴⁰ <https://ircem.ro/>

⁴¹ <https://rocesp.ro/>

⁴² <https://ambasadasustenabilitatii.ro/>



	<p>However, these networks/platforms are too few, in relation to the needs of promoting the green and circular transition, both in the economy in general, as well as in the tourism sector and related fields.</p>
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SPAIN

<p><i>Spain's National Plan for Recovery, Transformation and Resilience</i>⁴⁴</p>	<p>This comprehensive plan includes a strong focus on green and sustainable transitions, incorporating circular economy principles in various sectors, including tourism. It aims to promote environmentally friendly practices, reduce environmental impact and improve resource efficiency.</p>
<p><i>Tourism Sustainability Strategy in Destinations</i>⁴⁵</p>	<p>Aligned with the 2030 Agenda, this strategy focuses on sustainable tourism development. It includes initiatives for waste management, energy efficiency and the implementation of circular economy practices to ensure long-term sustainability in tourism destinations.</p>
<p><i>Spanish Circular Economy Strategy</i>⁴⁶</p>	<p>This strategy promotes a new model of production and consumption in which the value of products, materials and resources is retained in the economy for as long as possible. It aims at waste reduction and resource efficiency, influencing various sectors, including tourism.</p> <p>The Strategy establishes guidelines and sets a series of quantitative OBJECTIVES to be achieved by 2030, such as:</p> <ul style="list-style-type: none"> - Reduce food waste throughout the food chain: 50% reduction per capita at the household and retail consumption level and 20% in production and supply chains starting in 2020. - Improve water use efficiency by 10% - Reduce greenhouse gas emissions to below 10 million tons of CO2 equivalent.
<p><i>Practical Guide for the Application of the Circular Economy in the</i></p>	<p>Published by the Ministry of Industry and Tourism, the guide provides practical steps for tourism businesses to adopt circular economy</p>

⁴³ <https://legislatie.just.ro/Public/DetaliuDocument/262375> - The committee is formed by representatives of the ministries with duties and responsibilities in the field of the circular economy, the Presidential Administration, the Chancellery of the Prime Minister, the General Secretariat of the Government and the Department for Sustainable Development.

⁴⁴ https://www.lamoncloa.gob.es/temas/fondos-recuperacion/Documents/160621-Plan_Recuperacion_Transformacion_Resiliencia.pdf (pag. 57- 70)

⁴⁵ https://turismo.gob.es/es-es/Novedades/Documents/0Estrategia_Sostenibilidad_Turistica_Destinos.pdf

⁴⁶ <https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/estrategia.html>



<i>Tourism Sector</i> ⁴⁷	practices. It includes recommendations on reducing the use of non-renewable resources, self-production of renewable energy and sourcing local products.
<i>Vocational Training (VET) in Tourism</i> ⁴⁸	VET programs in Spain are increasingly incorporating green competencies into their curricula. These programs aim to equip future tourism professionals with the knowledge and skills needed to support sustainable and circular economy practices in their fields ⁴⁹ . Initiatives include specialized courses and certifications in sustainable tourism management, renewable energy applications in hospitality and environmentally friendly travel practices.
<i>Green competencies in tourism</i>	National efforts are focused on improving competencies related to energy efficiency, waste management, sustainable resource use, and the application of green practices in tourism operations. These initiatives are designed to prepare the workforce for the demands of a green and circular economy ⁵⁰ .
<i>Integration of circular economy principles</i>	Both national and sectoral strategies highlight the importance of circular economy principles. Training programs and educational initiatives are developed to ensure that tourism professionals understand and can implement practices that reduce waste, optimize resource use and promote sustainability ⁵¹ .
<i>Collaboration with industry stakeholders</i>	The government collaborates with industry stakeholders, educational institutions and professional bodies to develop and promote training programs that focus on green and circular skills, such as: the ability to minimize the use and maximize the efficiency of energy ⁹ and water consumption ⁵² . These partnerships help align training with industry needs and ensure the relevance of the skills being taught.

⁴⁷ <https://www.segittur.es/sala-de-prensa/informes/guia-practica-para-la-aplicacion-de-la-economia-circular-en-el-sector-turistico-en-espana/>

⁴⁸ <https://blog.fundae.es/aprendizaje-permanente/2023/09/27/competencias-verdes-empleos-futuro/>

⁴⁹ <https://alianzatransicioninclusiva.com/competencias-verdes-y-green-comp-el-marco-europeo-para-la-sostenibilidad/>

⁵⁰ <https://sepe.es/HomeSepe/que-es-el-sepe/comunicacion-institucional/noticias/detalle-noticia?folder=/SEPE/2023/Septiembre/&detail=Catalogo-de-Formacion-en-Economia-Verde-y-Circular>

⁵¹ <https://www.miteco.gob.es/es/ceneam/formacion-ambiental.html>

⁵² <https://www.laescueladelagua.com/avanzando-en-las-competencias-para-empleos-verdes/>



SLOVENIA

<p><i>Slovenia's Development Strategy 2030</i>⁵³</p>	<p>The document defines Slovenia's long-term development goals, including transitioning to a sustainable economy. The strategy emphasises the importance of sustainable development and includes targets for improving green skills and the transition to a circular economy.</p> <p>The key objectives of the 2030 Strategy for the Development of Slovenia, which emphasise the importance of sustainable development, improving green skills and the transition to a circular economy:</p> <p><i>Goal 2: Knowledge and skills for quality jobs and life</i> The strategy recognises the need to develop skills and competencies that will contribute to the green economy, including improving competencies for sustainable practices.</p> <p><i>Goal 3: Competitive and socially responsible entrepreneurship and research and innovation</i> Supports the development of entrepreneurship based on innovation and social responsibility, integrating sustainable practices. The strategy emphasises the need for innovation in the circular economy and green technologies.</p> <p><i>Goal 5: Low carbon circular economy</i> The objective is to move towards a low-carbon circular economy based on sustainable use of resources and reduced environmental impact. It includes the promotion of circular business models and the strengthening of green skills.</p> <p><i>Goal 6: Sustainable management of natural resources</i> Focuses on sustainable management of natural resources such as water, air and soil. The objective includes the development of skills for sustainable agriculture, forestry and fisheries and promoting renewable energy.</p> <p><i>Goal 8: High quality of life for all</i> It emphasises the importance of high quality of life through sustainable practices in urban and rural environments. These include</p>
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⁵³ https://www.gov.si/assets/ministrstva/MKRR/Strategija-razvoja-Slovenije-2030/Strategija_razvoja_Slovenije_2030.pdf



	<p>the development of green spaces, sustainable mobility, and the strengthening of ecological awareness among the population.</p> <p>These goals highlight different aspects of sustainable development and include concrete actions to improve green skills and support the circular economy. The Strategy addresses sustainable development holistically, which is a key to achieving a green future for Slovenia.</p>
<p><i>Slovenian Sustainable Tourism Strategy 2022-2028</i>⁵⁴</p>	<p>It sets out guidelines for developing sustainable tourism in Slovenia. It also includes measures to strengthen green skills among tourism workers and promote sustainable practices in the tourism sector.</p> <p><i>Objective 1: Sustainability</i> <i>Action 1.1: Education and training for sustainable tourism</i> Promote sustainable practices among tourism workers through education and training. Emphasis on building green skills, including resource management, energy efficiency and reducing environmental footprint.</p> <p><i>Objective 2: Digitisation and innovation</i> <i>Action 2.3: Develop digital solutions for sustainable destination management</i> Promote the use of digital technologies to better manage tourism destinations. The objective includes developing applications and platforms that help introduce sustainable practices and improve employee green skills.</p> <p><i>Objective 3: Strengthening human resources</i> <i>Action 3.1: Training and education for sustainable development</i> Focuses on the training of tourism staff for sustainable development. Includes training on sustainable practices, circular economy, energy efficiency and protection of natural and cultural resources.</p> <p><i>Objective 4: Sustainable promotion and marketing</i> <i>Action 4.2: Promote sustainable tourism products</i> Development and promotion of sustainable tourism products based on local specialities and natural and cultural heritage. The measure includes training staff on sustainable practices and improving their skills in managing such products.</p>

⁵⁴ <https://www.gov.si/en/news/2022-05-10-government-adopts-the-new-seven-year-slovenian-tourism-strategy-2022-2028/>



	<p><i>Objective 5: Strengthening institutional capacity and partnerships</i> <i>Action 5.1: Promote cooperation between stakeholders</i></p> <p>Strengthening public, private and non-governmental cooperation to achieve sustainable tourism objectives. It includes the exchange of knowledge and good practices and the development of green skills through partnership projects.</p> <p>These objectives and actions highlight different aspects of sustainable development in tourism and include concrete measures to improve green skills among tourism sector workers and promote sustainable practices.</p>
<p><i>Recovery and Resilience Plan (NOO - RRP)⁵⁵</i></p>	<p>This national plan includes measures for a green transition after the COVID-19 pandemic. Focus on investments in green transition, circular economy and green skills training.</p> <p>Slovenia has earmarked €1.7 billion under the Recovery and Resilience Plan (RRP) to promote the green transition, circular economy, and skills training. The NOO⁵⁶ includes several objectives relevant to these themes:</p> <p><i>Objective 3: Training in green skills and adapting the workforce to the green transition</i></p> <p><i>Action 3.1: Develop education and training programmes for green jobs</i> This action includes developing new education and training programmes for green professions such as renewable energy professionals, energy renovation of buildings, and the circular economy.</p> <p><i>Action 3.2: Support apprenticeships and mentoring in green sectors</i> This action offers support for apprenticeships and mentoring in green sectors to give young people practical experience and facilitate their transition to the labour market.</p> <p><i>Action 3.3: Promoting digital skills for the green transition</i> This action promotes digital skills relevant to the green transition, such as using digital tools for energy management, smart cities and sustainable agriculture.</p>

⁵⁵ https://www.eu-skladi.si/sl/dokumenti/po-2020/dokumenti-po-2020/povzetek-noo_angl.pdf

⁵⁶ https://www.eu-skladi.si/sl/dokumenti/rfp/noo_koncna.pdf



Strategy and action plan for greening the public educational and research infrastructure in Slovenia by the year 2030⁵⁷

The Strategy and Action Plan for the Greening of Public Education and Research Infrastructure in Slovenia by 2030 (the Strategy) includes several objectives relevant to green skills and the transition to a circular economy. These objectives are found in section 3.2 of the Strategy, entitled "Developing green skills and competences."

Key objectives:

Objective 1: Develop and strengthen education and training programmes for green skills at all levels of education.

Objective 2: Promote research and innovation in the field of green skills.

Objective 3: Provide adequate infrastructure and equipment for green skills education and training.

Objective 4: Raise awareness of the importance of green skills and the circular economy.

Objective 5: Promote cooperation between educational institutions, research organisations and enterprises in green skills.

Objective descriptions:

Objective 1: This objective focuses on developing education and training programmes that equip people with the knowledge and skills needed to work in green economies. This includes programmes in areas such as renewable energy, energy efficiency, circular economy, sustainable transport and green technologies.

Objective 2: This objective promotes research and innovation in green skills. This includes developing new education programmes, training methods and technologies to support the green transition.

Objective 3: This objective ensures that educational institutions have adequate infrastructure and equipment for education and training in green skills. This includes laboratories, workshops and other equipment necessary for practical training.

Objective 4: This objective focuses on raising awareness of the importance of green skills and the circular economy. This includes awareness-raising campaigns, informing the public and promoting a change in mindset.

⁵⁷[https://gradiva.vlada.si/mandat22/VLADNAGRADIVA.NSF/18a6b9887c33a0bdc12570e50034eb54/2906735058247dc2c12589e8004104e8/\\$FILE/Strategija%20IRI%202023.pdf](https://gradiva.vlada.si/mandat22/VLADNAGRADIVA.NSF/18a6b9887c33a0bdc12570e50034eb54/2906735058247dc2c12589e8004104e8/$FILE/Strategija%20IRI%202023.pdf)



	<p>Objective 5: This objective promotes cooperation between educational institutions, research organisations and businesses in the field of green skills. This includes knowledge sharing, joint research and the development of training programmes.</p>
<p><i>Common Agricultural Policy Strategic Plan 2023-2027</i>⁵⁸</p>	<p>Targets for green skills and the circular economy in the Common Agricultural Policy Strategic Plan 2023-2027</p> <p>The Common Agricultural Policy (CAP) Strategic Plan 2023-2027 for Slovenia includes a number of objectives relevant to green skills and the transition to a circular economy.</p> <p>These objectives can be found in Chapter 3 of the Strategy, entitled "Targets and targets". Relevant targets for the skills sector are targets 3 and 9:</p> <p><i>Objective 3: Support modern agriculture that is resilient and competitive.</i></p> <p><i>Objective 9: Expand knowledge, innovation and digitalisation.</i></p> <p>Descriptions of the objectives:</p> <p>Objective 3: This objective supports modern agriculture that is efficient, productive and resilient to climate change. This includes promoting investment in modern equipment, technologies and know-how.</p> <p>Objective 9: This objective focuses on disseminating knowledge, innovation, and digitisation in the agricultural sector. This includes promoting farmer education and training, the use of digital technologies in agriculture, and the development of new innovative solutions.</p> <p>To achieve these objectives, the CAP 2023-2027 will allocate 59.4% of total funding, significantly more than the 35% required by EU legislation. This will allow funding for a wide range of measures to support Slovenian agriculture's green transformation.</p>
<p><i>The Slovenian Smart Specialization Strategy (S4)</i>⁵⁹</p>	<p>This strategy identifies "Sustainable Industry" as a key area, focusing on eco-design, resource efficiency, and circular economy. It emphasizes the need for workforce development in these areas [Source: Ministry of Economic Development and Technology,</p>

⁵⁸ <https://skp.si/skupna-kmetijska-politika-2023-2027>

⁵⁹ https://www.eu-skladi.si/portal/en/post-2020-1/programming-1/slovenian_smart_specialisation-strategy



Slovenia].

Slovenia is committed to transforming itself into a green and circular economy under the Smart Specialisation Strategy. Slovenia's Smart Specialisation Strategy (S4), which includes targets and measures to improve green skills and the transition to a circular economy:

Priority areas: Sustainable food production

Objective 1.1: Sustainable agriculture and bioeconomy

The objective is to promote sustainable food production by introducing circular business models and improving resource efficiency. It includes measures for education and training in the green skills needed for sustainable practices in agriculture.

Priority areas: Sustainable tourism

Objective 2.1: Strengthening green skills in tourism

The objective is to improve green skills among employees in the tourism sector through education and training. It includes measures to introduce sustainable practices and circular economy in tourism activities.

Priority areas: Smart cities and communities

Objective 3.1: Sustainable resource management and circular economy

The objective is to develop smart solutions for sustainable resource management in cities and communities. Actions include promoting a circular economy and educating residents and employees on the green skills needed to implement these solutions.

Priority areas: Developing materials as final products

Objective 4.1: Promote circular business models in industry

The objective is to develop and use new materials that enable a circular economy. It includes measures to educate and train industrial workers to acquire the green skills needed to work with these materials.

Priority areas: Energy and environment

Objective 5.1: Increase energy efficiency and use renewable energy sources

The objective is to increase energy efficiency and the use of renewable energy sources in various sectors. It includes measures for education and training in the green skills needed for the deployment



	of these technologies.
<p><i>Guidelines for the implementation of active employment policy measures for the period 2021-2025</i>⁶⁰</p>	<p>The Guidelines are the overarching framework for the implementation of active employment policy and guide the development of measures and programmes in this area. In the period 2021-2025, the focus of the ALMP will be on the changing structure of the unemployed and vulnerable people in the labour market and on changing labour market conditions, in particular in terms of ensuring a rapid policy response to labour market needs and mismatches between the supply of unemployed people and the needs of employers.</p> <p>Increasing the labour market participation of vulnerable groups of unemployed, accelerating their transition to the labour market and preventing long-term unemployment, and reducing the gap between the skills needed and the actual skills of jobseekers are therefore key labour market challenges in the coming years.</p> <p>The European Green Deal is a new strategy for growth that aims to transform the EU into a fair and prosperous society with a modern, competitive economy that produces no net greenhouse gas emissions in 2050 and decouples growth from resource use. To achieve this, it is important to take an integrated approach, whereby all EU actions and policies should contribute to its objectives. <i>Proactive upskilling and reskilling are needed to reap the benefits of the eco-transition. Individuals need to be helped to acquire the skills they need to move from declining sectors to growth sectors and to adapt to new processes.</i></p> <p>The objective nr. 4 for the implementation of the AAP in the period 2021-2025:</p> <p><i>Addressing structural mismatches in the labour market in order to provide skills for labour market needs</i></p> <p>The content of training and education programmes in the coming period will be defined according to the needs of employers, taking into account sustainability and green jobs, automation and digitisation of jobs. A closer look at the structure of unemployment</p>

⁶⁰ <https://www.gov.si/teme/aktivna-politika-zaposlovanja/>



	<p>shows significant differences between the regional services of the Job Centre, and therefore an approach tailored to local needs, both in terms of the structure of the unemployed and the needs of employers, makes sense.</p>
<p><i>Strategic Circular Spatial Management Plan 2024-2030</i>⁶¹</p>	<p>Training and empowerment activities for circular economy space.</p> <p>The action consists of training, empowerment and promotion activities:</p> <ul style="list-style-type: none"> - training of staff working in the land administration system and in municipalities for professional implementation and coordination of circular space management measures, - training of local decision-makers and exchange of experiences, good practices, - training on land management, - raising general awareness of the importance and principles of circular land management through various media (social networks, newspaper columns, podcasts, TV programmes). <p>Promoter: Ministry of Natural Resources and Spatial Planning, office or agency for circular land management (in the meantime, an expert group), all relevant ministries and municipalities.</p> <p>Priority activities in 2024-2025: Full implementation of the measure in 2025.</p> <p>Indicators for implementing the action: The number of training courses delivered and the structure of participants. The Number of Good practices identified.</p> <p>Risks: Lack of qualified staff to deliver training, lack of coordination between different providers, and provision of resources for external providers.</p>
<p><i>DIGITAL SLOVENIA 2030</i>⁶²</p>	<p>It is the overarching strategic document of the Government of the Republic of Slovenia in the field of digital transformation.</p> <p>Digital Slovenia 2030 is the Government of the Republic of Slovenia's response to the development challenges of digitalisation. It is intended to provide strategic planning for promoting Slovenia's digital transformation in the development period up to 2030.</p>

⁶¹ https://www.gov.si/assets/organi-v-sestavi/GURS/Projekti/SLO4D/eMOP_SkupnaPI_RSS_Strategija-kroznega-gospodarjenja-s-prostorom.pdf

⁶² https://www.gov.si/assets/ministrstva/MDP/Dokumenti/DSI2030-potrjena-na-Vladi-RS_marec-2023.pdf



	<p>Achieving Slovenia's development goals through digital transformation.</p> <p>Digital transformation must pursue Slovenia's overarching strategic development objectives and individual sectors and support sustainable development as defined in the Sustainable Development Agenda 2030.</p> <p>Digital transformation must support green transformation, as it is an important tool for achieving the climate goals of all systems, sectors, or value chains that, through their transformation, make a key contribution to a carbon-free society (energy, mobility, manufacturing, it must be carried out with the minimum possible environmental and carbon footprint. To this end, the guidelines for decarbonising the digital chain will be set in the Action Plan.</p>
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BULGARIA

<p><i>The National Plan for Recovery, Transformation and Resilience</i></p>	<p>This comprehensive plan includes a strong focus on green and sustainable transitions, incorporating circular economy principles in various sectors, including tourism. It aims to promote environmentally friendly practices, reduce environmental impact and improve resource efficiency.</p>
<p><i>National strategy for sustainable tourism development in Bulgaria 2014-2030</i></p>	<p>This strategy systematises the vision, strategic objectives, priorities, and activities. Implementing it will lead to the establishment of sustainable schemes for the development and management of tourism activities.</p> <p>The developed strategy aims:</p> <ul style="list-style-type: none"> - to ensure the lasting competitiveness of Bulgaria as a tourist destination, - to support the sustainable development of the tourism industry, - to make maximum use of the information obtained from marketing studies, reports, analyses and forecasts, including from international sources such as the UN World Tourism Organization, the European Travel Commission, the World Travel and Tourism Council, Euromonitor, Eurostat, etc.,



	<ul style="list-style-type: none"> - to take into account the expectations and intentions of all stakeholders, - to comply with the requirements to create a correct, realistic and stable positioning of Bulgaria in the target markets and be flexible.
<p><i>Strategy for transition to a circular economy</i></p>	<p>Bulgaria has made the circular economy a long-term development policy priority in that strategic document.</p> <p>The National Development Programme Bulgaria 2030 puts forward the "circular and low-carbon economy" as a priority. This strategy for transition to a circular economy is a first and important step in this direction. The European Union's general policy on the circular economy is evolving and our country is aware of the challenges that lie ahead as well as the duration of such a transformation of societal attitudes, economic processes and institutional priorities. The transition to a circular economy will provide the country with economic growth and a better environment. The necessary institutional, financial and human resources will be mobilised for this purpose.</p> <p>The Strategy covers the context (National context of the circular economy, Production , Consumption and Waste management), the Priority areas, the Participants, The Comprehensive approach, Vision and Strategic Objectives, Horizontal conditions, Regional dimensions, Institutional framework, Funding sources, Conditions for successful implementation of the Strategy, Monitoring plan, Action plan).</p>

The main comparative findings related to the general framework of "Skills for the green and circular transition", in the four countries:

ROMANIA
<ul style="list-style-type: none"> • There are different strategies, plans, studies relevant to the central theme of this transnational analysis - some of them belong to education and professional training, others to tourism, others to various fields of interest, at the national level. • In many of them, objectives, measures, actions related to green competences and



circularity are clearly explained, in others there are tangential measures, which can be interpreted as having an important supporting role in promoting the green and circular transition.

- Although the green and circular transition, the adoption of new green technologies and the mandatory development of green skills have an impact on different sectors of activity, on workers, to remain relevant, many of the identified strategies still lack this focus, which clearly shows the urgent need to improve the general framework in which circularity, the green economy, sustainability are promoted, at the national level, in different sectors of activity.
- Skills foresight and skills anticipation are not done in Romania, for the labor market, in general, nor for green skills⁶³.
- In general, for the integration of circularity, there is a need for change in 3 key areas⁶⁴:

1. change of study programs and teaching methods in educational institutions.

2. changes within higher education institutions that can facilitate circularity in product design, manufacturing and distribution&marketing.

3. changes in vocational education and training systems, with a focus on essential skills that contribute to prolonging the use of products through repair, reuse and recycling.

SPAIN

- Both different national and sectoral strategies focus on circular economy principles, which creates a solid foundation for the green and circular transition.
- At the governmental level, different partnerships are initiated with different institutional actors (industry stakeholders, educational institutions and professional bodies) to develop and promote training programs that focus on green and circular skills.
- There is a clear tendency in VET institutions to focus on green skills to integrate sustainable and circular economy practices in their specific areas.

⁶³ See footnote/ reference no. 38

⁶⁴ As stated in the ACTION PLAN for the National Circular Economy Strategy: [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#), pag. 67



- A key element is given by the fact that there is a National Strategy on Circular Economy, which energizes and influences the green and circular transition. It aims at waste reduction and resource efficiency, influencing various sectors, including tourism.

SLOVENIA

- Slovenia recognizes the importance of green skills for a successful transition to a circular economy, an aspect reflected in the various strategies and plans, which include objectives, measures and elements necessary for circularity.
- Some of the strategic documents define clear targets regarding the development of green skills and the transition to circularity - for example, Slovenia's Development Strategy 2030⁶⁵.
- What differentiates the national context of Slovenia, from the other partner countries, is the fact that in the documents the focus is clear, explicit, on green skills, including in the Sustainable Tourism Strategy 2022-2028, at the sector level. This aspect indicates that in this country the need to focus on green skills, as a key element for the economy, the labor market and society in general, has been defined since the beginning of the drafting of the strategic documents.
- The content of training and education programmes in the coming period are defined according to the needs of employers, taking into account sustainability and green jobs, automation and digitisation of jobs.

BULGARIA

Bulgaria is slowly implementing the circular economy practices in its strategic framework.

- There are strategies, plans, studies relevant to the analysis mostly for the tourism sector and not so many for the education and professional training at the national level.
- The green competences and circularity are clearly explained in some of them but there is need to be summarized and explained as the texts are within legal language.
- Some of the strategies lack measures and are hard to implement.

⁶⁵ https://www.gov.si/assets/ministrstva/MKRR/Strategija-razvoja-Slovenije-2030/Strategija_razvoja_Slovenije_2030.pdf



- In the National strategy for sustainable tourism development in Bulgaria 2014-2030 there is no mention of a circular economy. The strategy is highly criticized by the tourism sector because of lack of measures and real action.
- Many of the identified strategies lack focus on green skills, which clearly shows the urgent need to improve the general framework in which circularity, the green economy, sustainability are promoted, at the national level, in different sectors of activity.

Section III - Synthetic view of national analyses⁶⁶

For Analysis 2, two types of respondents were targeted:

- ✓ representatives from tourism and related fields.
- ✓ representatives of VET institutions, which prepare the workforce for tourism and related fields.

ROMANIA⁶⁷

a) *The survey based on the questionnaire:*

Respondents	Tourism&related fields	VET institutions related to tourism
•45	•31	•14

b) *The interview-based survey:* total number of respondents: 4 people, of which 2 representatives from tourism and related fields and 2 representatives from VET institutions.

⁶⁶ Steps, way of implementation, methods and tools used, challenges faced, participants

⁶⁷ See the National Report, here: <https://advancecircular.incdt.ro/results/>



c) *The focus group*: total number of respondents: 10 people, of which 5 representatives from tourism and related fields and 5 representatives from VET institutions being a balanced participation.

SPAIN⁶⁸

a) *The survey based on the questionnaire*:



b) *The interview-based survey*: total number of respondents: 2 people, of which 1 representative from tourism and related fields and 1 representative from VET institutions.

c) *The focus group*: total number of respondents: 10 people, of which 6 representatives from tourism and related fields and 4 representatives from VET institutions.

SLOVENIA⁶⁹

a) *The survey based on the questionnaire*:



⁶⁸ See the National Report, here: <https://advancecircular.incdt.ro/results/>

⁶⁹ See the National Report, here: <https://advancecircular.incdt.ro/results/>



BULGARIA⁷⁰

a) *The survey based on the questionnaire:*



b) *The interview-based survey:* total number of respondents: 4 people, of which 2 representatives from tourism and related fields and 2 representatives from VET institutions.

Therefore, at the consortium level, a total number of 173 questionnaires (Romania, Spain, Slovenia, Bulgaria) were applied; interviews were conducted with 10 participants (Romania, Spain, Bulgaria) and 2 focus groups were organized (in Romania and Spain).

Section IV – Comparative conclusions at transnational level

Main findings, as they resulted from the interpretation of the feed-back obtained in the four countries:

1. Green and circular transition:

It is considered necessary in the organization they belong to:

Romania	78,57% VET respondents	70,96% tourism respondents
Spain	94,2% VET respondents	74% tourism respondents

⁷⁰ See the National Report, here: <https://advancecircular.incdt.ro/results/>



Slovenia	73,9% VET respondents	73,9% tourism respondents
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Bulgaria	56% VET respondents	tourism respondents
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It is considered necessary, in the tourism industry, in general:

Romania	64,28% VET respondents	77,41% tourism respondents
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Spain	100% VET respondents	91,3% tourism respondents
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Slovenia	73,9% VET respondents	88% tourism respondents
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Bulgaria	81% VET respondents	87,5% tourism respondents
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It is considered necessary in educational institutions that prepare the workforce for this industry:

Romania	57,14% VET respondents	77,41% tourism respondents
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Spain	100% VET respondents	87% tourism respondents
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Slovenia	73,9% VET respondents	88% tourism respondents
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Bulgaria	75% VET respondents	79% tourism respondents
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As can be seen, there are similar percentages for each country, with small variations, the most important being that in Spain and Romania, VET respondents consider in a higher proportion (94,2% and 78,57% respectively) that green and circular transition is needed in the organization



they belong to; and tourism respondents from Spain and Slovenia give higher scores (100% and 88% respectively) to this need in the tourism industry in general, as well as in educational institutions that prepare the workforce for this industry.

Considering that percentages higher than 50% were obtained for each category, it can be inferred that there is an important awareness of this need, both in tourism and in VET institutions.

2. Green skills:

They are seen as important and very important in the specific job/workplace:

Romania	78,57% VET respondents	67,74% tourism respondents
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Spain	82,3% VET respondents	87% tourism respondents
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Slovenia	60,9% VET respondents	56% tourism respondents
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Bulgaria	100% VET respondents	83% tourism respondents
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They are seen as important and very important in own organization:

Romania	78,57% VET respondents	67,74% tourism respondents
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Spain	88,2% VET respondents	82,6% tourism respondents
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Slovenia	65,2% VET respondents	60% tourism respondents
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Bulgaria	100% VET respondents	92% tourism respondents
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They are seen as important and very important in tourism industry, in general:



Romania	85,71% VET respondents	87,09% tourism respondents
Spain	94,1% VET respondents	91,3% tourism respondents
Slovenia	78,3% VET respondents	76% tourism respondents
Bulgaria	100% VET respondents	92% tourism respondents

Respondents from Bulgaria and Spain stand out for their high scores regarding the importance of green skills both at their own workplace, in their own organization and in tourism in general.

Although the majority of respondents from the 4 countries consider that green skills are important both in the specific job/workplace, in their own organization, and in the tourism sector in general, there is still a significant percentage who do not believe in the relevance of these types of skills.

Possible causes:

- ✓ misunderstanding of the concept of "green skills", what they mean practically, what they would be;
- ✓ the low awareness of their effect for workers and specialists, in the long term, in the labor market;
- ✓ not knowing how these skills can transform the social and economic sustainability of the economy and society in general.

These skills are in demand, indisputably, now and in the future on the labor market. That is why professional education and training, both formal and non-formal, must find new ways and pedagogies, with a clear focus on acquiring these skills, regardless of age or field of activity or type of organization.



3. Importance of different green skills:

VET respondents and respondents from tourism highlighted the following:

GREEN SKILLS	VET respondents				Respondents from tourism			
	Green skills for graduates able to act in the Circular Economy - scores (Very important/important)				Green skills for tourism - scores (Very important/important)			
	RO	ES	SI	BG	RO	ES	SI	BG
1. Ability to minimize the use and maximize the efficiency of energy and water consumption	85,71%	100%	78,3%	100%	93,54%	87%	84%	87%
2. Ability to manage waste, sewage, recycling and composting	85,71%	100%	86,9%	84%	90,32%	82,6%	76%	82,6%
3. Conservation and reusing of resources	78,57%	100%	82,6%	88%	83,87%	91,3%	76%	91,3%
4. Promotion of sustainable forms of transport and entertainment	85,71%	100%	78,2%	92%	90,32%	95,7%	80%	95,7%
5. Promotion of environmentally friendly activities and products	78,57%	100%	86,9%	92%	90,32%	90,9%	88%	91,3%
6. Pollution prevention	85,71%	100%	86,9%	100%	93,54%	93%	84%	95,7%
7. Circulating products and materials at their highest value	85,71%	94,1%	82,6%	88%	87,09%	91,4%	76%	91,4%
8. Skills for online&digital activities and services to reduce carbon emissions	78,57%	94,1%	86,9%	87%	83,87%	82,7%	76%	82,7%
9. Using the local products and resources	85,71%	94,1%	86,9%	100%	87,09%	86,9%	84%	86,9%
10. Ability to re-use, re-purpose, recycle of resources	78,57%	100%	86,9%	92%	87,09%	65,7%	84%	65,7%

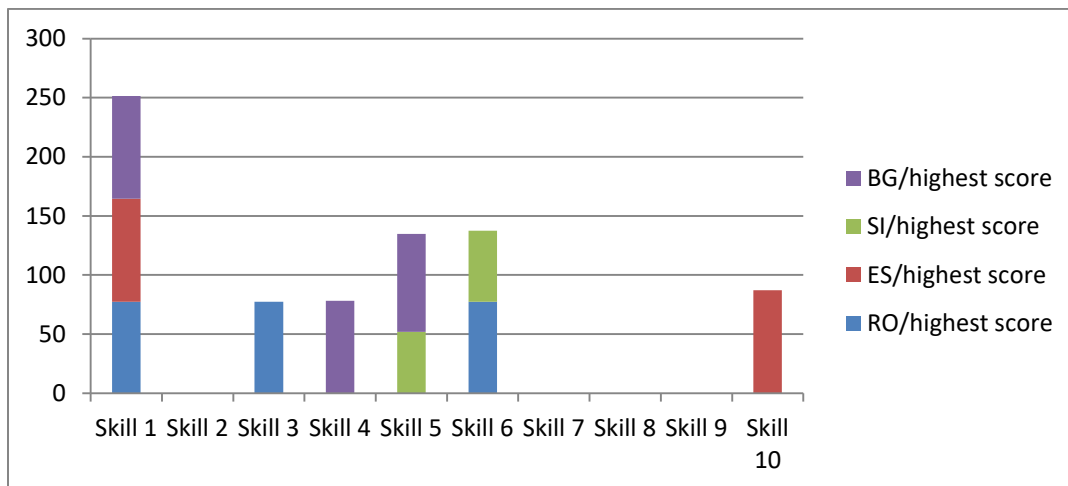


Looking comparatively, between the opinions of the respondents from the 4 countries, it can be observed that:

- ✓ In RO, VET respondents give the highest score to skills no. 1, 2, 4, 6, 7 and 9 while the respondents from tourism give priority to skills no. 1 and 6.
- ✓ In ES, VET respondents give the highest score to skills no. 1, 2, 3, 4, 5, 6 and 10 while the respondents from tourism give priority to skills no. 4 and 6.
- ✓ In SI, VET respondents give the highest score to skills no. nr. 2, 5, 6, 8, 9 and 10 while the respondents from tourism give priority to skills no. 5, 1, 6, 9 and 10.
- ✓ In BG, VET respondents give the highest score to skills no. to skills no. 1, 4, 5, 6, 9, 10 while the respondents from tourism give priority to skills no. 3, 4, 5, 6, 7.

Paradoxically, ability no. 10, which is a key element in the circular economy, is not considered to be the most important green skill, than in Spain and Slovenia, which denotes the fact that the basic principles of the circular economy/green and circular transition are still little understood and aware in Romania.

4. Desire of tourism respondents to acquire and develop green skills to be more productive:



Regarding green skills to be more productive at work, respondents from tourism gave the highest score, as follows:



- ✓ RO - skills no. 1, 3 and 6.
- ✓ ES - skills no. 1 and 10.
- ✓ SI - skills no. 6 and 5.
- ✓ BG - skills no. 1, 4 and 5.

5. Level of preparedness of VET institutions to train and develop these green skills for its graduates:

RO: little prepared/very little prepared	ES: little prepared/very little prepared	SI: little prepared/very little prepared	BG: little prepared/very little prepared
21,4%	41,2%	17%	37,5%

RO: prepared/very prepared	ES: prepared/very prepared	SI: prepared/very prepared	BG: prepared/very prepared
42,9%	29,4%	44%	25%

The VET institutions in Slovenia and Romania consider themselves quite prepared to facilitate their own students' acquisition of green skills.

However, the majority of VET respondents from the partner countries are in the neutral zone with their opinions, which may indicate either a lack of knowledge of the key organizational elements that define the capacity of their own institutions to train their own graduates with such skills, or simply the provision an answer that does not tip the scale, located in the comfort zone.

However, it is gratifying that VET respondents are aware of a certain degree of inadequacy of their own organizations from the point of view of green skills, necessary for the green and circular transition, which creates a solid foundation for improvement, organizational transformation, transformation curriculum etc.



7. Main obstacles that could prevent VET organizations from developing the green skills for its graduates:

Obstacles	RO – highest score	ES – highest score	SI – highest score	BG – highest score
1. <i>The curriculum</i>	42,85%/1st position – it is considered the main obstacle	58,8%/1st position – it is considered the main obstacle	13,1%/2nd position	56%/2nd position
2. <i>Teachers and trainers unfamiliar with the CE</i>	14,28%/4th position	52,9%/2nd position	17,4%/1st position – it is considered the main obstacle	62,5%/1st position - it is considered the main obstacle
3. <i>Inadequate material basis</i>	35,71%/2nd position	47,1%/3rd position	13%/3rd position	6%/4th position
4. <i>Pedagogical methods and training tools insufficiently adapted to the teaching and practice of green skills and the circular economy</i>	21,42%/3rd position	47,1%/3rd position	13%/3rd position	31%/3rd position

In Romania and Spain, the curriculum is seen as the most important obstacle in preparing students for green and circular transition in tourism. In Slovenia, main obstacle is "teachers and trainers unfamiliar with the CE", but in the case of the respondents from this country, we must highlight the fact that the majority placed themselves in the neutral zone with their own answers (neither agree nor disagree). In Bulgaria, main obstacle is also "teachers and trainers unfamiliar with the CE" with an extremely high percentage (62,5%) compared to respondents from Slovenia (17,4%), who stated the same as the most important obstacle in VET institutions.

8. The most suitable type of support for the development of the green skills:

TYPE OF SUPPORT	VET respondents (Very important/important)				Respondents from tourism (Very important/important)			
	RO	ES	SI	BG	RO	ES	SI	BG
1. Counseling in circular economy	78,57%	94,1%	82,6%	100%	67,74%	78,3%	68%	92%



2. Training programs	85,71%	94,1%	82,6%	94%	77,41%	78,2%	92%	79%
3. Exchange of good practices	85,71%	94,1%	91,3%	100%	83,87%	82,6%	84%	92%
4. Networking with other VET organizations on tourism	71,42%	94,1%	87%	63%	80,64%	78,2%	80%	83%

- ✚ In RO, the most suitable support modalities are for VET respondents: training programs and exchange of good practices; and for tourism respondents: exchange of good practices; networking with other tourism organizations.
- ✚ In ES, all 4 types of support are suitable and desired for their own organizations, in the case of VET respondents; and for tourism respondents: exchange of good practices.
- ✚ In SI, the most suitable support modalities are for VET respondents: exchange of good practices and networking with other VET organisations on tourism; and for tourism respondents: training programs and exchange of good practices.
- ✚ In BG, the most suitable support for VET and tourism are consultation and advices on circular economy and the exchange of good practices. Tourism sector also sees big potential in networking, which is on 4th place for VET. The training programs are with high scores but still not so important then the rest for tourism.

Since the percentages obtained for all 4 types of support, in the partner countries, for both categories of respondents are higher than 50%, it can be concluded that there is a need for support programs for green and circular transition, which contain integrated measures and actions, both in VET institutions and the tourism sector. In this way, several needs, of different types, can be covered in a proper manner.



General conclusions:

- The degree of preparation in the partner countries for skills specific to the green and circular transition varies, both from the point of view of the legislative framework, and from the point of view of the organizational capacity of both types of targeted organizations from tourism and related fields and VET institutions which prepare the workforce for tourism and related fields.
- Integrating green skills into sustainability strategies of organizations from tourism sector is compulsory.
- Green skills can be a relevant path to support the tourism sector and economy as a whole.
- Tourism still does not have enough skills to offer more sustainable and circular services.
- The investment in the green and circular transition specific skills of tourism employees, as well as of teachers&trainers in VET organizations should be seen as a benefit, and not just as a cost.
- The future of work is based on green abilities and green&circular transition.
- There is a great need for education and awareness among different stakeholders: companies, employees, tourists, VET trainers, students and graduates. Also, there is a great need for collaboration and partnership between all relevant actors in the field.



Section V - Glossary of concepts

This glossary has the role of explaining and detailing⁷¹ different key concepts, which were used in carrying out Analysis 2.

CIRCULAR ECONOMY

<p>https://www.europarl.europa.eu/news/en/headlines/economy/20151201ST005603/circular-economy-definition-importance-and-benefits</p>	<p>The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended. In practice, it implies reducing waste to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible thanks to recycling. These can be productively used again and again, thereby creating further value.</p> <p>This is a departure from the traditional, <i>linear</i> economic model, which is based on a take-make-consume-throw away pattern. This model relies on large quantities of cheap, easily accessible materials and energy.</p>
<p>https://www.sciencedirect.com/topics/social-sciences/circular-economy</p>	<p>A circular economy describes an economic system that is based on business models which replace the ‘end-of-life’ concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes, thus operating at the micro level (products, companies, consumers), meso level (eco-industrial parks) and macro level (city, region, nation and beyond), with the aim to accomplish sustainable development, which implies creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations”</p>

GREEN ECONOMY

<p>https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy</p>	<p>An economy that operates safely within planetary environmental boundaries, notably with regards to a stable climate and healthy ecosystem biodiversity.</p>
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⁷¹ For each definition of the key concepts, the source is also mentioned.



https://business.linkedin.com/talent-solutions/recruiting-tips/thinkinsights/demand-for-green-skills-is-rising	<p>A green economy can be understood as one in which environmental, economic and social policies and innovations enable society to use resources efficiently-enhancing human well-being in an inclusive manner, while maintaining the natural systems that sustain us.</p>

GREEN TRANSITION

https://ym.fi/en/what-is-the-green-transition	<p>The green transition means a shift towards economically sustainable growth and an economy that is not based on fossil fuels and overconsumption of natural resources. A sustainable economy relies on low-carbon solutions that promote the circular economy and biodiversity.</p> <p>For companies, industries and municipalities, the green transition can mean investments in clean energy production, circular economy solutions, digital technology, and the introduction of different kinds of new services and operating models. Low-carbon roadmaps and sustainability strategies drawn up by different sectors are an important part of this transition.</p>
https://www.sthree.com/en-gb/glossary/g/green-transformation/	<p>The green transformation refers to the comprehensive shift towards environmentally sustainable practices, technologies and policies in various sectors of society. It involves transitioning from resource-intensive and polluting practices to more sustainable and environmentally friendly alternatives, with the goal of mitigating climate change, reducing ecological impacts and promoting a more sustainable future.</p> <p>The green transformation aims a range of areas, including energy production and consumption, transportation, waste management, agriculture, construction, tourism and more. It involves adopting renewable energy sources, improving energy efficiency, reducing greenhouse gas emissions, implementing circular economy principles, conserving natural resources and promoting eco-friendly practices and products.</p>
https://www.telefonica.com/en/communication-room/blog/green-	<p>Green transition means:</p>



transition-what-is-it-and-what-are-its-objectives/	<ul style="list-style-type: none"> • Control and reduction of energy consumption and work materials. • Optimisation of journeys. • Use of recyclable materials. • Implementation of technologies for an optimal use of natural resources. • Responsible control and treatment of waste.
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CIRCULAR TRANSITION

https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview	<p>Transition to a system where materials and resources become waste and scraps as little as possible and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.</p> <p>The circular economy is based on three principles, driven by design:</p> <ul style="list-style-type: none"> • Eliminate waste and pollution • Circulate products and materials (at their highest value) • Regenerate nature
https://eando.se/transition-to-a-circular-economy/	<p>Definition of the EU: The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.</p> <p>Simply put, circular economy is about minimizing the amount of waste that is generated. A transition to a circular economy can create high business value through new business models, secured supply of materials, reduced costs and reduced climate impact for improved market positioning.</p> <p>Achieving a change may require innovation and digitalization, but it can also be a simple change such as small alterations to a product or service design.</p>



GREEN JOBS

<p>https://www.goodwork.ca/page/what-is-a-green-job</p>	<p>A green job is any job or <u>self-employment</u> that <i>genuinely</i> contributes to a more <u>sustainable</u> world.</p> <p>A green job is the coming together of a company or organization, with an individual motivated and capable of performing the role.</p> <p>The company or organization can either be in a 'green' sector (e.g. solar energy), or in a conventional sector but making genuine and substantial efforts to green its operations (not just <u>greenwash</u>).</p>
<p>https://link.springer.com/referenceworkentry/10.1007/978-3-642-28036-8_1</p>	<p>The green workplace is simply defined as a workplace that is environmentally sensitive, resource efficient, and socially responsible.</p> <p>It is also defined as the sustainable strategies in the workplace whereby managers can make their offices and practices more sustainable, efficient, and well suited to the complex, ever-changing world of business, and organizations can enhance business profitability and long-run marketability, while reducing costs, increasing productivity, and improving recruiting and retention, and increasing shareholder value, in addition to benefiting the environment.</p> <p>The green strategies are based on concrete and cost-effective changes such as working from home, ways to cut commuting costs, video conferencing to cut down on travel, increasing access to natural light to save energy, and the like.</p>
<p>ILO-UNEP, Green jobs: Towards decent work in a sustainable, low-carbon world https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/presentation/wcms_842327.pdf</p>	<p>“We define green jobs as positions in agriculture, manufacturing, construction, installation, and maintenance, as well as scientific and technical, administrative, and service-related activities, that contribute substantially to preserving or restoring environmental quality.</p> <p>Specifically, but not exclusively, this includes jobs that help to protect and restore ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency and avoidance strategies; de-carbonize the economy; and minimize or altogether avoid generation of all forms of waste and pollution.</p>



	<p>Green jobs help:</p> <ol style="list-style-type: none"> (1) Improve energy and raw materials efficiency; (2) Limit greenhouse gas emissions; (3) Minimize waste and pollution; (4) Protect and restore ecosystems; (5) Support adaptation to the effects of climate change.
https://cpdonline.co.uk/knowledge-base/business/green-jobs/	<p>“Green jobs are jobs that have a focus on either reducing carbon emissions, restoring nature or making similar environmental improvements.”</p>
https://cdn.ceps.eu/wp-content/uploads/2023/09/CEPS-In-depth-analysis-2023-12_Jobs-for-the-green-transition-1.pdf	<p>Jobs are green when work-related activities contribute to rendering the organisation’s processes more environmentally sustainable or use fewer resources.</p> <p>This implies that green jobs can also be found in traditional sectors that are not producing direct environmental outputs as long as they adopt new organisational practices, cleaner services or technologies to improve their energy and resource efficiency and they have employees whose duties involve processes more environmentally friendly or more efficient in their use of natural resources.</p>

GREEN SKILLS

https://byjus.com/free-ias-prep/green-skill-development-programme/	<p>Green skills are those skills needed to adapt processes, services, and products to climate change and the environmental regulations and requirements related to it.</p> <p>They include the knowledge, abilities, values, and attitudes needed to live in, develop and support a sustainable and resource-efficient society.</p>
https://unfccc.int/news/why-are-green-skills-important-for-youth	<p>Green skills include technical knowledge, expertise and abilities that enable the effective use of green technologies and processes in professional settings.</p> <p>They draw on a range of knowledge, values, and attitudes to facilitate environmentally sustainable decision-making at work and in life.</p>
<p>Mahmoud Elsaadany, FDI Expert: “Green Skills for a Sustainable Future” https://www.linkedin.com/pulse/green-skills-sustainable-future-mahmoud-</p>	<p>Green skills refer to the specific abilities, knowledge, and competencies required to thrive in a rapidly changing world focused on environmental sustainability.</p>



elsaadany/	
CEDEFOP definition – https://www.cedefop.europa.eu/files/5524_en.pdf	Knowledge and skills which reduce the negative impact of human activity on the environment.
United Nations Industrial Development Organization - UNIDO - https://www.unido.org/stories/what-are-green-skills	Knowledge, abilities, values and attitudes needed to live in, develop and support a sustainable and resource-efficient society. Cedefop (2012) defines green skills as “the knowledge, abilities, values and attitudes needed to live in, develop and support a sustainable and resource-efficient society.”
Delloitte definition https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consultancy/deloitte-uk-a-blueprint-for-green-workforce-transformation.pdf	Technical skills, knowledge, behaviours and capabilities required to tackle the environmental challenges we face and to unlock new opportunities for growth. The 3 core environmental challenges that green skills span are: <ul style="list-style-type: none"> - Nature and biodiversity - Climate change and decarbonisation - Waste and pollution reduction
OECD and Cedefop (2014) https://www.lkdfacility.org:9000/wp-content/uploads/2022/09/LKDForum-2020-Green-Skills-for-a-Sustainable-Future.pdf	“The skills needed by the workforce, in all sectors and at all levels , in order to help the adaptation of products, services and processes to the transformations due to climate change and to environmental requirements and regulations”.

GREEN WORKER

https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@ifp_skills/documents/publication/wcms_164630.pdf	The core skills identified as necessary for the new green worker include environmental awareness and willingness to learn about sustainable development as well as general learning and decision-making ability.
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GREEN TOURISM

PROMOTING GREEN TOURISM FOR FUTURE SUSTAINABILITY - ProQuest	Green tourism is defined as environmentally friendly tourism activities with various focuses and meanings. In a broad term, green tourism is about being an environmentally friendly tourist or providing environmentally friendly tourist services. The green tourism concept would be highly appealing to tourism enterprises and operators owing to increasing governmental pressure to improve environmental performance by adopting
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	effective and tangible environmental management techniques.
https://www.linkedin.com/pulse/green-tourism-its-example-iqbal-uddin-abbasi/	Green tourism, also known as sustainable tourism, eco-tourism, or responsible tourism, is a type of travel that focuses on minimizing the negative impact of tourism and promoting environmental conservation, cultural preservation, and social responsibility.