



National Report - ROMANIA

Analysis 2

“Skills for the green and circular transition”

Activity A2.3

Developed by
ACE-ES Romania&INCDT



National context related to "Skills for the green and circular transition": strategies, plans, studies aimed at green skills, at national level, in general and specifically (tourism and related fields + VET in tourism)

For the development of Analysis 2 "Skills for the green and circular transition" and the understanding of the national context, different strategies, work plans and studies were identified having relevance and significance for this analysis, as follows:

*a) The National Implementation Plan for Initial and continuing Vocational Education and Training (PNI-VET)*¹ 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).

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"². 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".

*b) The National Strategy on Education for the environment and climate change 2023 – 2030*³

In the "Context analysis and problem definition" section, the following key aspects are highlighted⁴:

¹https://www.edu.ro/sites/default/files/fi%C8%99iere/Cooperare-Internationale/2023/Romania_PNI-VET_RO.pdf

²[Romania_PNI-VET_RO.pdf \(edu.ro\)](#), pag. 29

³[SNEM.pdf \(edu.ro\)](#)



- The National Education Law was amended to include environmental competences among the key competences that determine the training profile.
- 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.

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 teachers⁵.

The strategy also promotes and defines the concept of "green school"⁶: 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.

⁴ <https://www.edu.ro/sites/default/files/SNEM.pdf>, pag. 13-15

⁵ <https://www.edu.ro/sites/default/files/SNEM.pdf>, pag. 30

⁶ <https://www.edu.ro/sites/default/files/SNEM.pdf>, pag. 31



c) *The National Strategy for Green Jobs (2018-2025)*⁷ developed by the Ministry of Labor and Social Solidarity 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.

The GENERAL OBJECTIVE of this strategy is the following: ensuring sustainable employment by stimulating and capitalizing on the green job generator potential of competitive sectors⁸.

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. 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).

Another direction of action is "Training and development of green skills"⁹, with a preponderance in the priority areas of intelligent specialization:

- bioeconomy;
- information and communication technology, space and security;
- energy, environment and climate change;
- econanotechnologies and advanced materials.

⁷ https://mmuncii.ro/j33/images/Documente/Munca/2018/21082018_SN_Locuri- Munca_Verzi_2018-2025.pdf

⁸ https://mmuncii.ro/j33/images/Documente/Munca/2018/21082018_SN_Locuri- Munca_Verzi_2018-2025.pdf , pag. 50-51, pag. 54

⁹ [21082018_SN_Locuri- Munca_Verzi_2018-2025.pdf \(mmuncii.ro\)](https://mmuncii.ro/j33/images/Documente/Munca/2018/21082018_SN_Locuri- Munca_Verzi_2018-2025.pdf), pag. 56



d) The National strategy for the sustainable development of Romania 2030¹⁰

Relevant objectives of this strategy, in the context of Analysis no. 2 are the following:

OBJECTIVE 4: QUALITY EDUCATION - Education for Sustainable Development

2030 target¹¹ - Ensuring that all students acquire the knowledge and the skills needed to promote sustainable development, including through education for sustainable development and sustainable lifestyles.

EDUCATION FOR SUSTAINABLE DEVELOPMENT¹²

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, economic and environmental impacts. This education must become an integral part of the quality of education, inherent in the concept of continuous learning.

OBJECTIVE 12: RESPONSIBLE CONSUMPTION AND PRODUCTION - Transition to the circular economy

THE TRANSITION TO THE CIRCULAR ECONOMY¹³

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.

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

¹⁰ [Strategia-nationala-pentru-dezvoltarea-durabila-a-României-2030.pdf \(edu.ro\)](https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-României-2030.pdf)

¹¹ <https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf>, pag. 41

¹² <https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf>, pag. 38

¹³ <https://www.edu.ro/sites/default/files/Strategia-nationala-pentru-dezvoltarea-durabila-a-Rom%C3%A2niei-2030.pdf>, pag. 78



increase of investments in specific sectors, the development of social policies and innovation in the economy, combating climate change and its effects.

e) National Strategy for the Employment of the Labor Force 2021-2027¹⁴

Within Specific Objective 4: "Consolidation of the professional training system for adults for a better connection to the requirements of the labor market"¹⁵, measures aimed at green skills are also proposed:

- 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.

f) The National strategy for the training of adults in the period 2024-2027¹⁶

Specific objective 5 is focused on the development of green and digital skills of adults¹⁷. 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: "Inclusion of green and digital skills in all training programs and occupational standards".

It is emphasized that, within an emerging economy¹⁸, such as circular economy, social economy, green economy, digitization, sustainable development... green and digital skills are a key factor.

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.

One of the proposed measures is the organization of training programs at the workplace for employees to acquire green skills - technical and non-technical¹⁹.

¹⁴ https://mmuncii.ro/j33/images/Documente/MMPS/SNOFM_2021-2027.pdf

¹⁵ See the strategy above, pag. 67-68

¹⁶ https://mmuncii.ro/j33/images/Documente/MMSS/Strategia_nationala_formare_adulti_2024-2027_si_Plan_de_actiune.pdf

¹⁷ See the strategy above, pag. 36

¹⁸ See the strategy above, pag. 50

¹⁹ See the strategy above, pag. 56



g) NATIONAL STRATEGY for CONTINUOUS EDUCATION OF ADULTS 2024-2030²⁰ is the most recent strategy that addresses green competences (adopted in May 2024).

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:

O6.1. Management of green and digital skills across skill levels and fields/sectors.

O6.2. Assessment and certification of digital and green skills.

O6.3. Provision of green and digital skills by domains/sectors.

The strategy also includes sustainable development objectives, thus the emphasis is placed on:

- 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.

One of the proposed measures for Objective 6 on the Action Plan are the following:

- ✚ 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.

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



Unfortunately, none of the measures proposed in the Action Plan have a clear application deadline.

*h) Romania's Tourism Development Strategy - Volume 2 – Strategy and Action Plan*²¹, one of its objectives being: 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 results²²:

- 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.

Unfortunately, within the tourism strategy, there are no references to green skills, green and circular transition and green jobs.

*i) The National Strategy regarding the Circular Economy*²³ adopted in September 2022 is accompanied by an ACTION PLAN for the National Circular Economy Strategy²⁴. This Plan includes specific objectives no. 1²⁵: **"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

²¹[Strategia-de-Dezvoltare-Turistica-a-României-volum-2-Strategia-și-Planul-de-Acțiune.pdf \(gov.ro\)](#)

²² See the strategy above, pag. 39

²³ <https://dezvoltaredurabila.gov.ro/strategia-nationala-privind-economia-circulara-13409762>

²⁴ [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#)

²⁵ [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#), pag. 20



assessments."

The plan details this priority action 1²⁶, highlighting the need for change in 3 key areas:

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.

Other actions of interest for Analysis 2, included in the Plan, regarding education, training and public awareness in the circular economy field, are the following²⁷:

- ✓ 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.

In the European Analysis, entitled "Learning for sustainability in Europe: Building skills and support for teachers and schools"²⁸, for Romania it is pointed out that although there is a national strategy dedicated to environmental education²⁹, 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. 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

²⁶ [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#), pag. 67

²⁷ [Planul de actiune pentru Strategia Nationala privind Economia Circulara - varianta finala.PDF \(mmediu.ro\)](#), pag. 20-21

²⁸ <https://eurydice.eacea.ec.europa.eu/publications/learning-sustainability-europe-building-competences-and-supporting-teachers-and>

²⁹ See above, section (b) The National Strategy on Education for the environment and climate change 2023 – 2030



represents a trans-curricular principle, not a general objective of education and training.

Other relevant aspects are highlighted by CEDEFOP in "Skills anticipation in Romania" (2023 Update), as follows³⁰:

- ✓ 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.
- ✓ There is no evidence of skills foresight being undertaken in Romania.
- ✓ There are no other skills anticipation exercises in place in Romania.

Therefore, skills foresight and skills anticipation are not done in Romania, for the labor market, in general, nor for green skills.

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:

1. Coalition for the Circular Economy³¹.
2. Institute for Research in Circular Economy and Environment "Ernest Lupan"³².
3. Romanian Circular Economy Stakeholder Platform³³.
4. Embassy of Sustainability in Romania³⁴.
5. The Coordination Committee for the Circular Economy in Romania³⁵ - body without legal personality, with an advisory character.

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.

³⁰ [Skills anticipation in Romania \(2023 Update\) | CEDEFOP \(europa.eu\)](#)

³¹ <https://www.economiecirculara.eu/scop/>

³² <https://ircem.ro/>

³³ <https://rocesp.ro/>

³⁴ <https://ambasadasustenabilitatii.ro/>

³⁵ <https://legislatie.just.ro/Public/DetaliiDocument/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.



Description of how the national analysis was carried out (steps, way of implementation, methods and tools used, challenges faced)

Analysis no. 2 was organized and implemented based on the specific Methodology, developed in the consortium for Activity A2.3.

To carry out Analysis no. 2 in Romania, INCDT and ACE-ES Romania applied both quantitative and qualitative methods to obtain a variety of data with a high degree of relevance for the main topic of the analysis. Thus, the following tools were created and used:

a) *The survey based on the questionnaire* - its administration was done online (based on a Google form).

Two questionnaires were developed:

- 🚩 Questionnaire 1, applied to representatives from tourism and related fields.
- 🚩 Questionnaire 2, applied to representatives of VET institutions, which prepare the workforce for tourism and related fields.

b) *The interview-based survey* - a semi-formal instrument was used; its administration was done face-to-face. The tool included predefined items allowing the interviewer to introduce the topic and leave the respondent free to come up with more qualitative information. Also, the interview helped us to deep the data collected through both online questionnaires.

c) *The focus group* was organized on April 5, 2024, in a hybrid format, the activity allowed obtaining opinions, suggestions, additional and valuable feed-back to the answers given through the 2 online questionnaires.

During the entire period of the application of research methods and tools in Romania, the main concerns of INCDT and ACE-ES Romania were the following:

- facilitating a balanced representation of the two groups of respondents.
- motivating them to provide relevant answers and opinions related to the topic of Analysis no.



2.

- presentation of the project and its activities, for better awareness.

Description of respondents (type, number of participants, average age, background)

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.

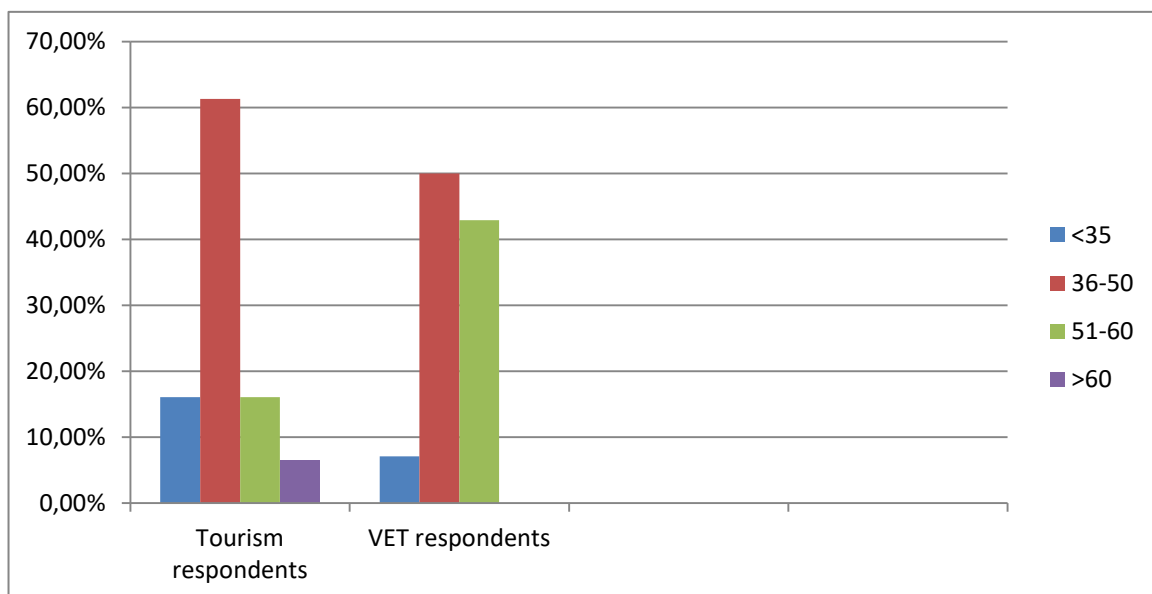
Number of participants:

a) *The survey based on the questionnaire*: total number of respondents: 45 people, of which 31 representatives from tourism and related fields and 14 representatives from VET institutions.

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.

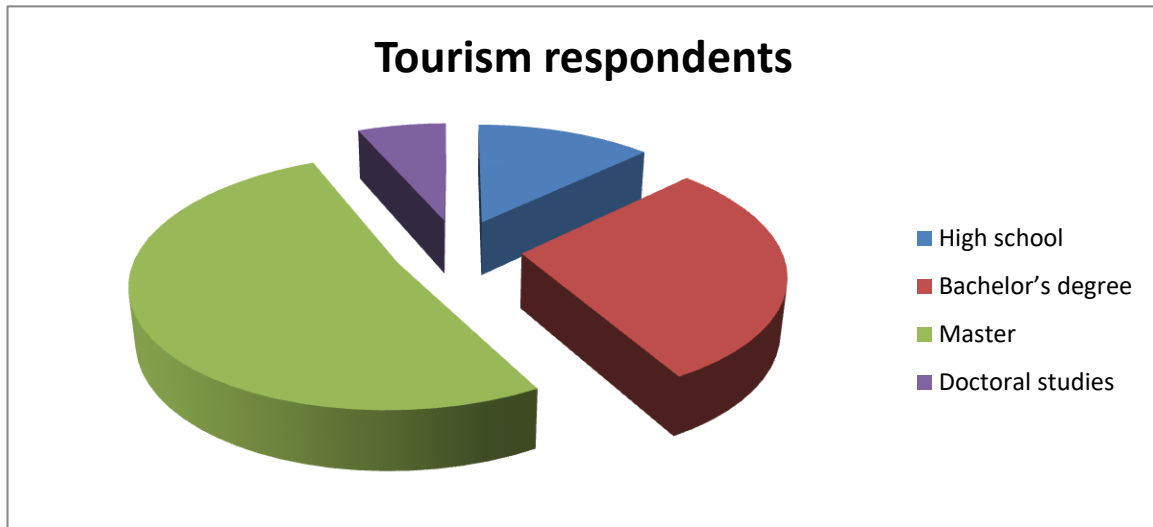
c) *The focus group*: total number of respondents: 10 people, of which 5 representatives from tourism and related fields and 5 representatives from VET institutions being a balanced participation.

Age of participants:



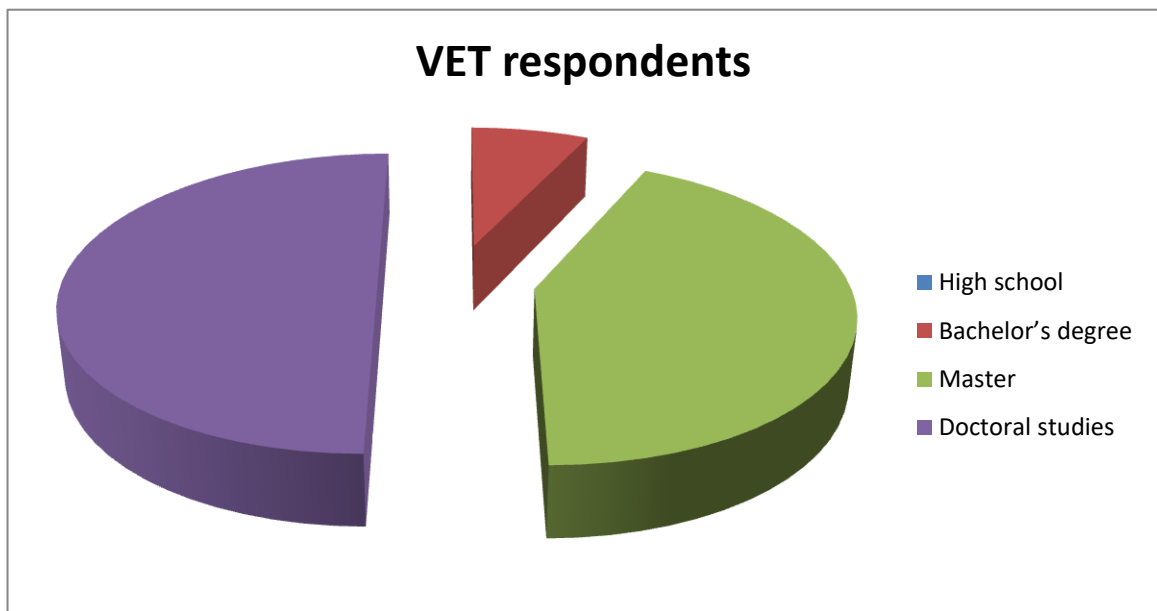
Regarding the background of participants:

a) *level of education of tourism representatives:*



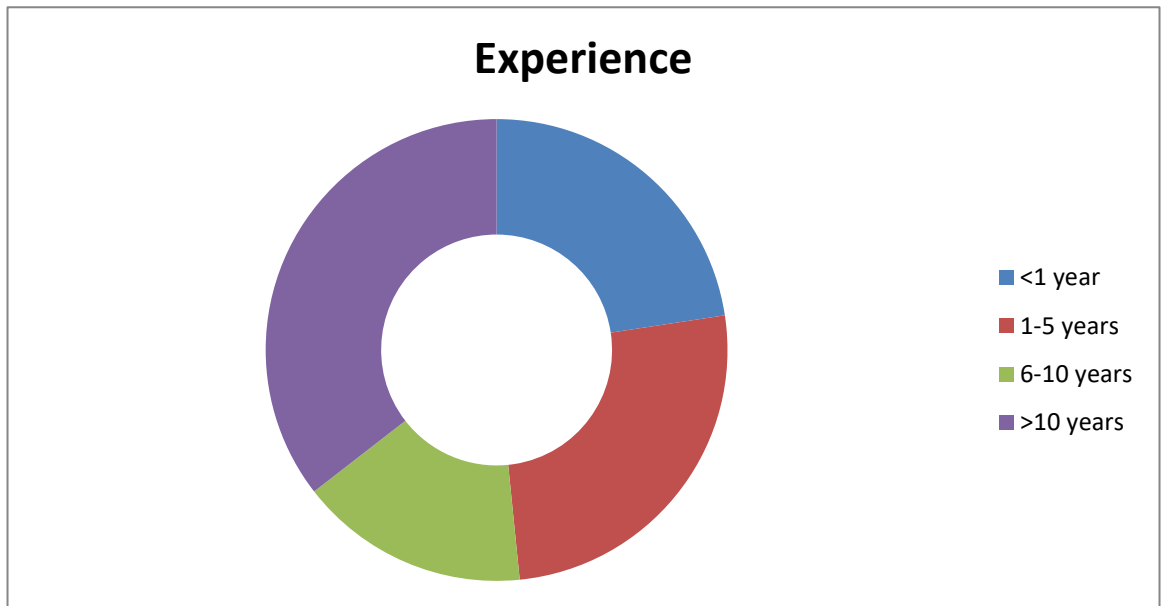
A percentage of 51.6% respondents have a master's degree, and 6.5% have doctoral studies.

b) *level of education of VET representatives:*



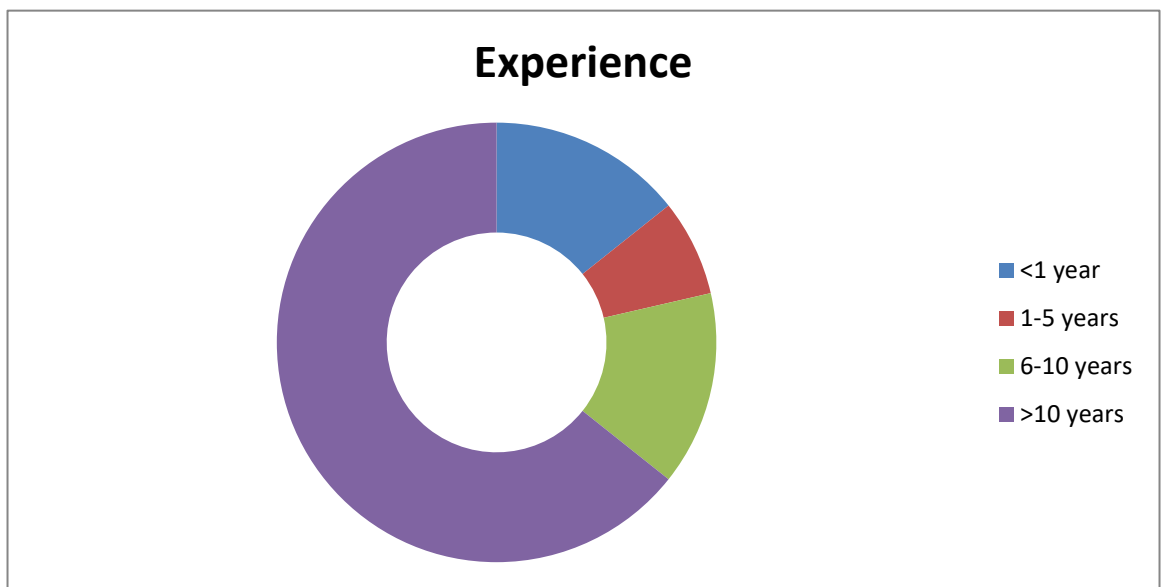
A percentage of 50% of respondents have doctoral studies, and a master's degree - 42.9%.

c) years of experience in the field of tourism representatives:



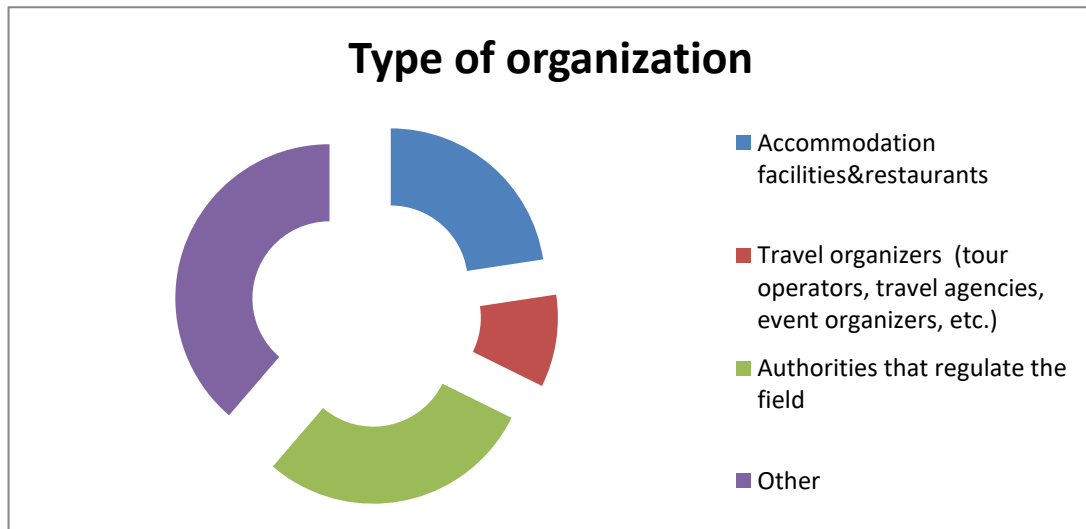
A percentage of 35,5% of respondents have more than 10 years of experience in tourism, and 16.1%, experience between 6-10 years.

d) years of experience in the field of VET representatives:



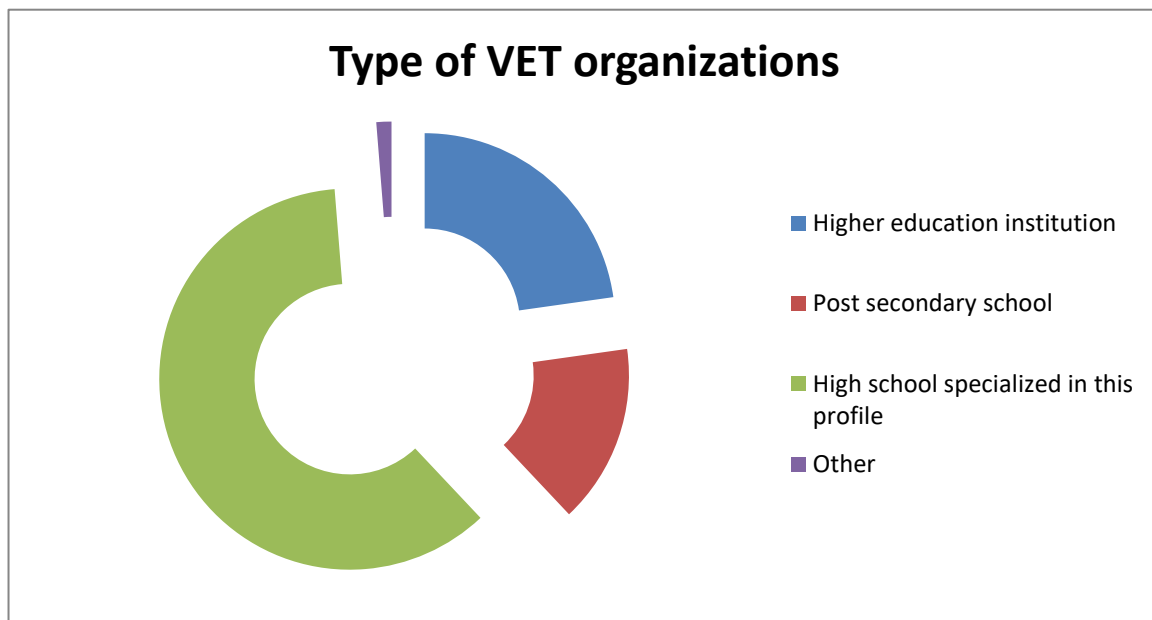
A percentage of 64,3% of respondents have more than 10 years of experience in VET, and 14,3%, experience between 6-10 years.

e) type of organization in tourism&related fields



22.6% of respondents represent Accommodation facilities&restaurants; 29% authorities in the field; 38.7% represent other categories of relevant organizations in the field, for example - Destination Management Organizations.

f) type of vocational education and training institution (VET) in tourism and related fields



21,4% of respondents represent Higher education institution; 57,1% - High school specialized in this profile.

General Conclusions and Recommendations - as they resulted from the interpretation and synthesis of the answers received/all relevant data **(detailed analysis supported by quantitative interpretation (statistical data, graphs, etc.) and qualitative interpretation)**

Main findings, as they resulted from the interpretation of the feed-back obtained by applying the online questionnaires, face-to-face interviews and conducting the focus group:

1) Green and circular transition is considered necessary, both by VET representatives and by representatives from tourism, in the organization they belong to:

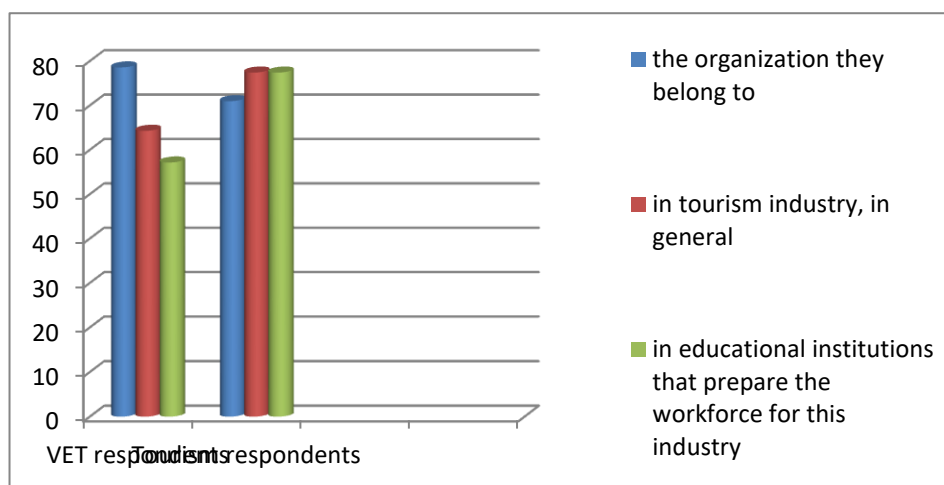
78,57% VET respondents	70,96% tourism respondents
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Green and circular transition is considered necessary, both by VET representatives and by representatives from tourism, in the tourism industry, in general:

64,28% VET respondents	77,41% tourism respondents
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Green and circular transition is considered necessary, both by VET representatives and by representatives from tourism, in educational institutions that prepare the workforce for this industry:

57,14% VET respondents	77,41% tourism respondents
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There is a fairly large similarity of the opinions of the two types of respondents, but also differences within the same category of respondents. Although the VET respondents state that the green&circular transition is necessary in their own organization, however, a much smaller percentage agree that this transition is necessary in educational institutions that prepare the workforce for this industry, which is a contradiction, taking into account the fact that the organization they belong to is an educational institution.

2) Green skills are seen as important and very important in the specific job/workplace:

78,57% VET respondents	67,74% tourism respondents
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Green skills are seen as important and very important in own organization:

78,57% VET respondents	67,74% tourism respondents
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Green skills are seen as important and very important in in tourism industry, in general:

85,71% VET respondents	87,09% tourism respondents
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Although the percentages are high, there are still respondents who do not consider these green skills to be important, whether they are in their own workplace or in their own organization or in tourism, in general. The possible causes are: lack of understanding of the types of green skills; a weak awareness of the relationship between the specifics of a job and the skills that make it more efficient from the point of view of sustainability and circularity; not knowing how these skills affect the long-term labor market.

On the other hand, there is still the opinion that green skills can be "openers" of roads and can bring important opportunities in employment, not only in tourism, but also in other sectors of activity.

These skills represent the future on the labor market. Education and professional training, both



formal and non-formal, should facilitate the acquisition of these skills, regardless of age or field of activity.

Green and circular transition requires specific skills to favor sustainable and circular practices in tourism and related fields. Graduates and employees need new skills, attitudes and behaviors focused on circularity, on the efficient and sustainable use of resources, on environmental protection.

3) Regarding the importance of different green skills, the VET respondents and respondents from tourism highlighted the following - comparative analysis of the points of view expressed by the two categories of respondents:

GREEN SKILLS	VET respondents Important green skills for graduates able to act in the Circular Economy	Respondents from tourism Important green skills for tourism
1. Ability to minimize the use and maximize the efficiency of energy and water consumption	Very important/important 85,71%	Very important/important 93,54%
2. Ability to manage waste, sewage, recycling and composting	Very important/important 85,71%	Very important/important 90,32%
3. Conservation and reusing of resources	Very important/important 78,57%	Very important/important 83,87%
4. Promotion of sustainable forms of transport and entertainment	Very important/important 85,71%	Very important/important 90,32%
5. Promotion of environmentally friendly activities and products	Very important/important 78,57%	Very important/important 90,32%
6. Pollution prevention	Very important/important 85,71%	Very important/important 93,54%
7. Circulating products and materials at their highest value	Very important/important 85,71%	Very important/important 87,09%



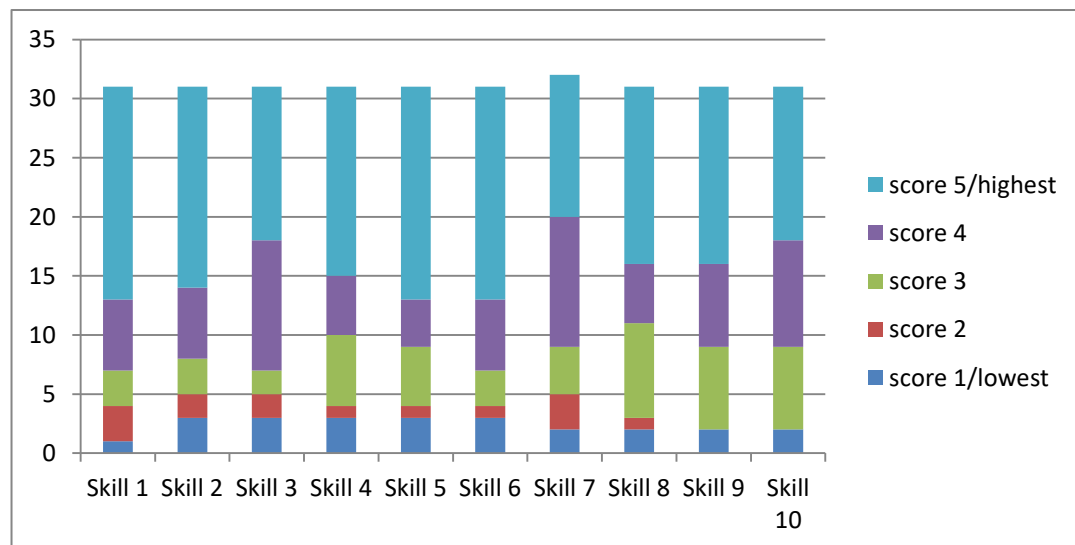
8. Skills for online&digital activities and services to reduce carbon emissions	Very important/important 78,57%	Very important/important 83,87%
9. Using the local products and resources	Very important/important 85,71%	Very important/important 87,09%
10. Ability to re-use, re-purpose, recycle of resources	Very important/important 78,57%	Very important/important 87,09%

Looking comparatively, it is noted that for each of the 10 green skills analyzed, respondents from tourism gave higher scores, regarding their importance in this industry, compared to VET respondents, who recorded lower scores.

In order of percentages obtained, 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.

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

4) Regarding the desire of tourism respondents to acquire and develop green skills in order to be more productive in the organization they belong to:





The ranking of desired and highly desired skills is as follows:

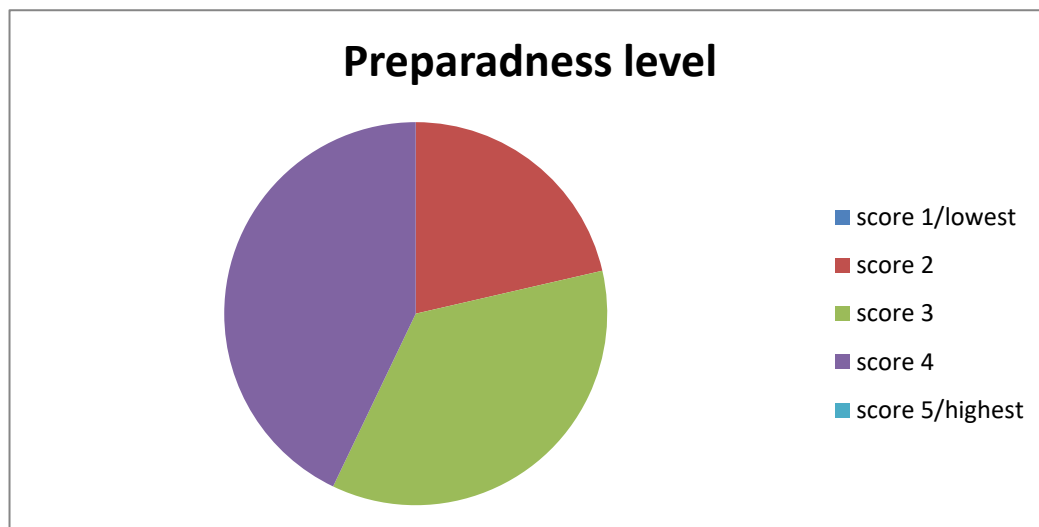
- ✓ skill 1: Ability to minimize the use and maximize the efficiency of energy and water consumption – 77,41%.
- ✓ skill 3: Conservation and reusing of resources – 77,41%.
- ✓ skill 6: Pollution prevention – 77,41%.

followed by:

- ✓ skill 2: Ability to manage waste, sewage, recycling and composting – 74,19%.
- ✓ skill 7: Circulating products and materials at their highest value – 74,19%.

It is important that most respondents want to possess green skills, which could make them more productive and "supporters" of sustainable development/circular transition, in their organizations and in the tourism industry, in general.

5) Regarding the level of preparedness of VET institutions to train and develop these green skills for its graduates, 21.4% of VET respondents state that their organizations are poorly prepared in this direction; 35.7% are neutral from this perspective, and 42.9% are relatively prepared to facilitate their own students' acquisition of green skills.





It can be seen that the 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, but also necessary for the challenges of the labor market in the present and future.

These organizations must invest in becoming greener themselves, in transforming the training process into a greener one, which will lead to students and graduates having green skills, with a high degree of suitability on the labor market, in tourism industry and in related fields.

VET organizations that prepare the workforce for the tourism industry and related fields play a central role in early education regarding environmental protection, circularity and green transition.

6) Main obstacles that could prevent VET organizations from developing the green skills for its graduates - in this regard, the data obtained can be correlated with point 5, above (level of preparedness of VET institutions).

Obstacle no.	5	4	3	2	1
1	Highest score				Lowest score
The curriculum	42,85%	21,42%	28,57%	0%	14,28%

Obstacle no.	1	2	3	4	5
2	Highest score				Lowest score
Inadequate material base	35,71%	21,42%	21,42%	7,14%	14,28%



Obstacle no.	1	2	3	4	5
3	Highest score			Lowest score	
Pedagogical methods and training tools insufficiently adapted	21,42%	21,42%	28,57%	7,14%	21,42%

Obstacle no.	1	2	3	4	5
4	Highest score			Lowest score	
Teachers and trainers unfamiliar with the CE	14,28%	28,57%	35,71%	14,28%	7,14%

Therefore, the curriculum is seen as the first obstacle, followed by inadequate material base and pedagogical methods and training tools insufficiently adapted for teaching and practicing green skills and the circular economy. Teachers and trainers unfamiliar with the circular economy is seen as the smallest obstacle in the formation of green skills of graduates, although it is possible that the percentage of 14,28% is not so relevant, as long as 35,71% of the respondents were with the answer in score 3 (neither agree nor disagree - neutral position).

It is also possible that this obstacle is still a very important one, as long as the educational institutions in Romania are focused quite little on the circular economy and on sustainable development, and the training of teachers in these directions is not generalized, there are only specific initiatives and projects.

This aspect is correlated with the findings of the European Analysis "Learning for sustainability in



Europe: Building skills and support for teachers and schools"³⁶, which underlines that in Romania sustainability-related competences are not embedded in the teacher competences framework or professional standards unlike in Spain, for example.

7) Regarding the most suitable type of support for the development of the green skills necessary for the transition to the circular economy - comparative analysis of the points of view expressed by the two categories of respondents:

TYPE OF SUPPORT	VET respondents	Respondents from tourism
1. counseling in circular economy	Very important/important 78,57%	Very important/important 67,74%
2. training programs	Very important/important 85,71%	Very important/important 77,41%
3. exchange of good practices	Very important/important 85,71%	Very important/important 83,87%
4. networking with other VET organizations on tourism	Very important/important 71,42%	Very important/important 80,64%

For VET respondents, the most suitable/desired ways of support are, in order of preference:

- training programs
- exchange of good practices

followed by circular economy counseling. Surprisingly, networking with other VET organizations on tourism is the least desired form of support, because exchange of good practices, exchange of experience and learning can be stimulated and strengthened much better in networks, platforms of relevant institutional actors in the field.

For tourism respondents, the most suitable/desired ways of support are, in order of preference:

³⁶ <https://eurydice.eacea.ec.europa.eu/publications/learning-sustainability-europe-building-competences-and-supporting-teachers-and> – Figure 2.1, pag 54



- exchange of good practices
- networking with other tourism organizations

followed by training programs. It is also surprising that the respondents from tourism give the lowest score to the need for counseling in the circular economy, knowing that a counseling program customized to the specifics of the company, highlights the strengths and weaknesses, allows the diagnosis and minimization of obstacles in adopting the circular practices. Counseling facilitates a new mindset to enhance circular models in the tourism industry and support the understanding that applying the CE framework and philosophy into an organization can take time but is a necessary step forward.

Face-to-face interviews and focus groups nuanced and brought a more in-depth perspective on the factual data, obtained through the online questionnaires. Thus, the following conclusions and opinions are worth taking into account, regarding the topic of Analysis 2 "Skills for the green and circular transition":

- Green skills cannot be learned in a single course... in a single subject, by adding concepts specific to sustainable development, circularity, etc., but by transforming VET programs, by incorporating and practicing concepts and behaviors, naturally, throughout the all education years.
- Integrating green skills into sustainability strategies of organizations from tourism sector is compulsory but only a limited number of tourism organizations explicitly recognize the need for green abilities or consider specific actions in this regard. The absence of a clear focus or an undefined, unstructured focus on green skills in business/organizational development plans hinders the green and circular transition.
- Green skills can be a relevant path to support the tourism sector and economy as a whole.
- An important challenge in the integration of circularity and green skills in VET is the insufficient



awareness of VET experts of what the green and circular transition entails. They need adequate resources, curriculum, materials, pedagogical methods and training tools to effectively train future graduates and develop their green skills.

- It is essential that VET experts and VET institutions that train graduates for tourism and related fields have themselves a deep understanding of the concepts, have a mindset suitable for circularity, have resources and innovative materials and the possibility to receive counselling&support, to share experiences and good practices, through collaborations.

- 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. **Although there are strategic documents, action plans and educational priorities in Romania** - see also section 1 of this Analysis (*National context related to "Skills for the green and circular transition": strategies, plans, studies aimed at green skills, at national level, in general and specifically (tourism and related fields + VET in tourism)*) **often lack this focus.**

- When the green and circular transition is seen as an essential concern for the entire organization, not just for certain functions or departments, then the behaviors, value and decisions taken could be guided by the principle of focus and action in doing what is right - for profit, but also for the planet.

- Tourism still does not have enough skills to offer more sustainable and circular services.

- More than simply raising awareness of circularity, the environment, among tourism employees, the key is for them to be trained and stimulated to take concrete measures.

The objective, in the long term, is for them to do their work differently, the green and circular transition being a chance to save resources, protect the environment, "friendly" influence the community in which they work. 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.

- For a more sustainable and resource-friendly future, ecological skills are an important asset for any company in tourism and related fields, as well as for any VET institution. Green skills represent the professional world of tomorrow. The future of work is based on green abilities and green&circular transition.

- New green&circular roles are emerging within tourism and related fields, for example: sustainability expert; circular products&services design expert; specialist in waste management; ecological expert; environmental specialist.

- It is also necessary change of tasks, of knowledge and skills in existing occupations. For the already existing occupations, it is not about a total change of the qualifications and skills themselves, but a transformation, a "revival" of them through adapted curricula, learning methods and contexts centered on "green" and "circular", through long life learning.

- It is clear that internal changes are needed in the organizations active in the tourism sector, as well as in the VET institutions, which prepare the work format for this sector to become more resilient and sustainable. These changes can be facilitated by diversifying activities where green, circular, digital skills are used to create new integrated services or businesses.

- Difficulties of organizations in tourism and related fields relate to the ability of employees to improve their green skills and use them in different work contexts.

- There is a great need for a long period of education and raising awareness among different stakeholders: company management, employees, tourists, VET trainers, students and graduates, tourists, community, networks and partnerships.