

# GREENT PILOT DELIVERY IN ROMANIA – REPORT COMPILED BY THE GREENT PROJECT TEAM

Funded by the ERASMUS+ Programme of the European Union

Created by JA Bulgaria in collaboration with JA Greece, JA Latvia, Ungt Entreprenørskap Sogn og Fjordane (Norway), and JA Romania

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## I. Teacher feedback after individual lessons delivery

A total of 29 lesson activity reports were submitted by teachers from Romania. The 10 different lessons piloted by Romanian teachers are:

First Name	Last Name	City / town	Name of school	Name of the GREENT lesson you delivered
Bucatariu	Mihaela	Bucuresti	Colegiul Național Sfântul Sava	3. System boundaries, social systems, ecosystems
Georgescu	Georgeta	Bucharest	CN Spiru Haret	15. The four system conditions and the four sustainability principles
Georgescu	Georgeta	Bucharest	CN Spiru Haret	21. Green economy
Georgescu	Georgeta	Bucharest	CN Spiru Haret	19. What is entrepreneurship?
Georgescu	Georgeta	Bucuresti	CN Spiru Haret	1. Introductory lesson. Pre-test and collection of expectations
Godean	Xenia Lucia	TIMISOARA	LICEUL CU PROGRAM SPORTIV BANATUL	19. What is entrepreneurship?
Godean	Xenia Lucia	TIMISOARA	LICEUL CU PROGRAM SPORTIV BANATUL	18. Examples of sustainable businesses
Godean	Xenia Lucia	TIMISOARA	LICEUL CU PROGRAM SPORTIV BANATUL	15. The four system conditions and the four sustainability principles
Godean	Xenia Lucia	TIMISOARA	LICEUL CU PROGRAM SPORTIV BANATUL	1. Introductory lesson. Pre-test and collection of expectations
Gratiela	Goruneanu	Bucharest	Liceul Teoretic Alexandru Ioan Cuza	24. Sustainable business model canvas
Gratiela	Goruneanu	Bucharest	Liceul Teoretic Alexandru Ioan	21. Green economy

			Cuza	
Gratiela	Goruneanu	Bucharest	Liceul Teoretic Alexandru Ioan Cuza	15. The four system conditions and the four sustainability principles
Gratiela	Goruneanu	Bucharest	Liceul Teoretic Alexandru Ioan Cuza	1. Introductory lesson. Pre-test and collection of expectations
Ortansa	Moise	Bucuresti	Colegiul National "Cantemir-Voda"	21. Green economy
Ortansa	Moise	Bucuresti	Colegiul National "Cantemir-Voda"	18. Examples of sustainable businesses
Ortansa	Moise	Bucuresti	Colegiul National "Cantemir-Voda"	16. Sustainable solutions and their importance for the environment. Climate, energy and waste handling.
Ortansa	Moise	Bucuresti	Colegiul National "Cantemir-Voda"	1. Introductory lesson. Pre-test and collection of expectations
Simona	Hanca	Turda	Colegiul Tehnic Turda	21. Green economy
Simona	Hanca	Turda	Colegiul Tehnic Turda	17. Sustainable solutions in everyday life – global and local impact
Simona	Hanca	Turda	Colegiul Tehnic Turda	15. The four system conditions and the four sustainability principles
Simona	Hanca	Turda	Colegiul Tehnic Turda	1. Introductory lesson. Pre-test and collection of expectations
Simona	Popa	Bucuresti	Colegiul National "Gheorghe Lazar"	21. Green economy
Simona	Popa	Bucuresti	Colegiul National "Gheorghe Lazar"	20. What is green entrepreneurship?
Simona	Popa	Bucuresti	Colegiul National "Gheorghe Lazar"	19. What is entrepreneurship?
Simona	Popa	Bucuresti	Colegiul National "Gheorghe Lazar"	1. Introductory lesson. Pre-test and collection of expectations
Vasile	Cristina	Bucharest	"Tudor Vianu"	20. What is green entrepreneurship?

	Mariana		National Highschool of Computer Science	
Vasile	Cristina Mariana	Bucharest	"Tudor Vianu" National Highschool of Computer Science	18. Examples of sustainable businesses
VASILE	CRISTINA MARIANA	BUCHAREST	"Tudor Vianu" National Highschool of Computer Science	1. Introductory lesson. Pre-test and collection of expectations
Vasile	Cristina Mariana	Bucharest	"Tudor Vianu" National Highschool of Computer Science	19. What is entrepreneurship?

The students to whom the lessons were delivered were 9<sup>th</sup>- and 10<sup>th</sup>-graders. According to the information submitted in the forms, a total of 716 students participated in the lessons. The actual number of unique students is lower because teachers who piloted more than one lesson have piloted the lessons to the same group of students. The teachers who delivered the lessons are teachers in Economy and entrepreneurship, Social sciences, and IT and computer science.

Most teachers used 1 school hour to deliver the respective lesson but several of them used 2 school hours. Most of the teachers chose to deliver the introduction and the theory part of the lessons, they also relied heavily on the case studies, entrepreneur profiles and practical activities.

Having in mind that most lessons were delivered in 1 school hour it is remarkable that only in 4 cases teachers reported that they had to skip some parts and time was not enough. All teachers gave feedback that the indicative timings for each section in the lessons is a good reference point when planning lesson delivery.

The overall assessment presented in Chart 1 below reveals the high appreciation that Romanian teachers give especially to the case studies and entrepreneur profiles in the GREENT lessons, as well as to the opportunities for blended learning that they reveal.

### GREENT lessons' content, difficulty, age appropriateness and relevance of presented information according to Romanian teachers

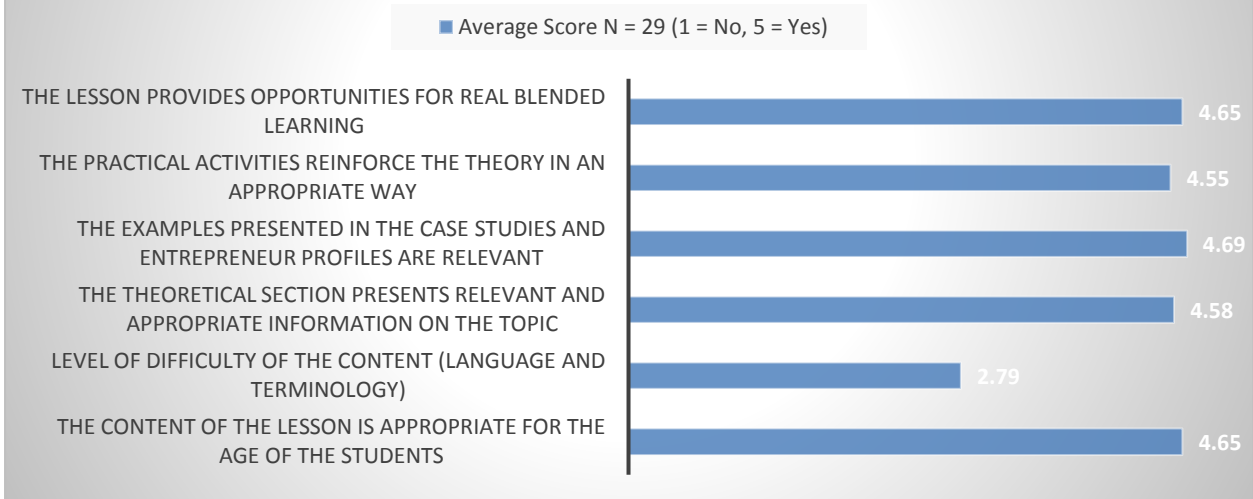


Chart 1. Assessment of Romanian teachers related to GREENT lessons' content, difficulty, age appropriateness and relevance of presented information.

Only in 4 of the piloted lessons Romanian teachers experienced difficulties with the fact that the online videos in the lessons are in English. The situation with the students is a little bit more complicated with teachers reporting that in 8 of the lessons the students had difficulties understanding the English videos.

An important aspect of the GREENT lessons is their influence on fostering and/or changing students' attitudes. The teachers in Romania were requested to give their assessment of whether the lessons they piloted have an impact on students' creativity, environmental responsibility and willingness to generate their own sustainable business idea. The scores are presented in Chart 2 below:

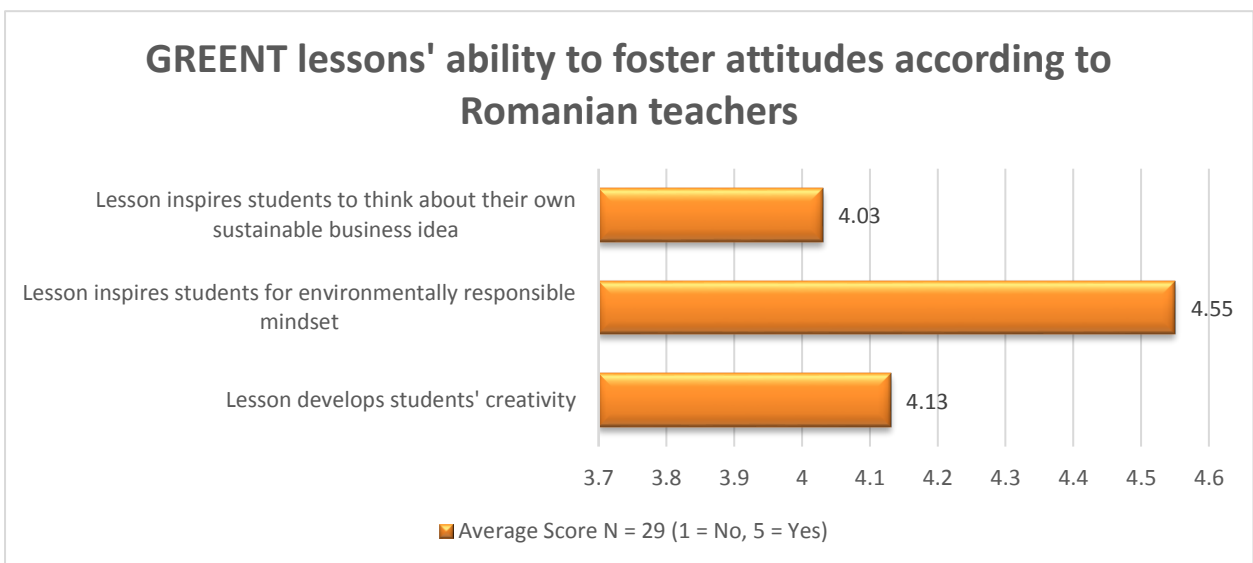


Chart 2. Assessment of Romanian teachers related to GREENT lessons' ability to foster attitudes and creativity.

In terms of skills that piloting teachers thought were mostly developed by the GREENT lessons piloted in Romania, the leading ones are critical thinking, environmentally responsible mindset and reflection and self-assessment. Data is summarized in Chart 3 below:

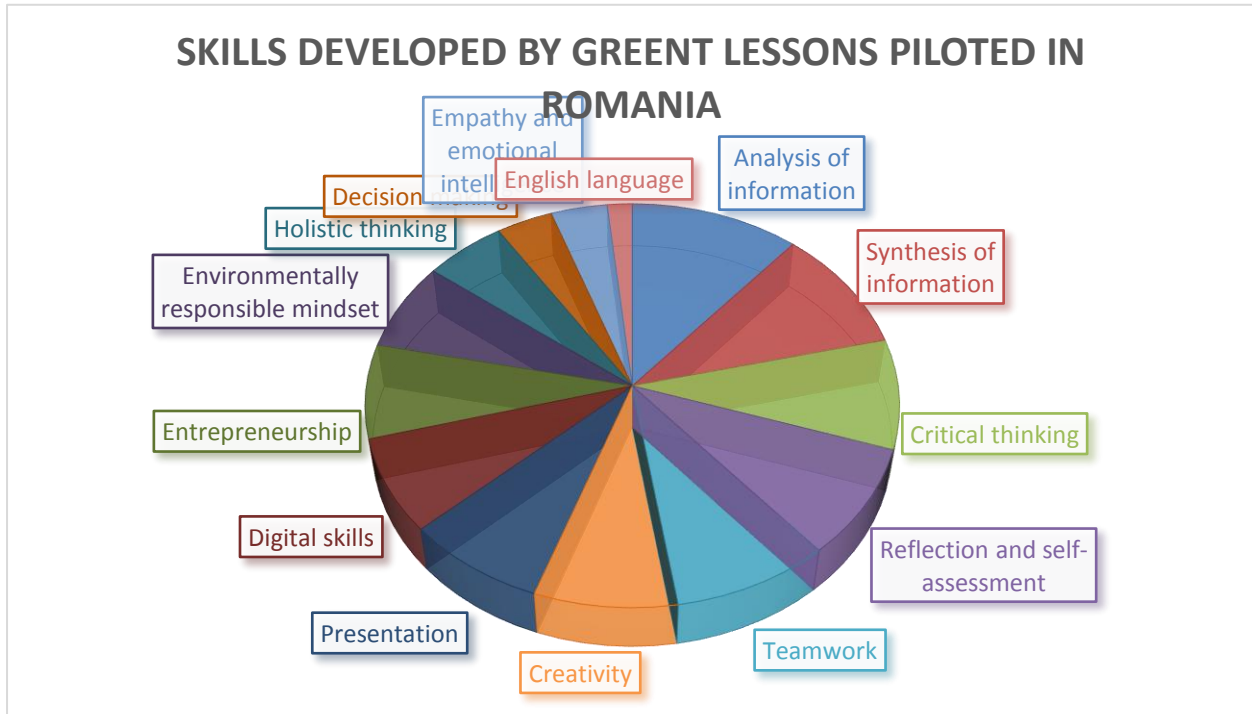
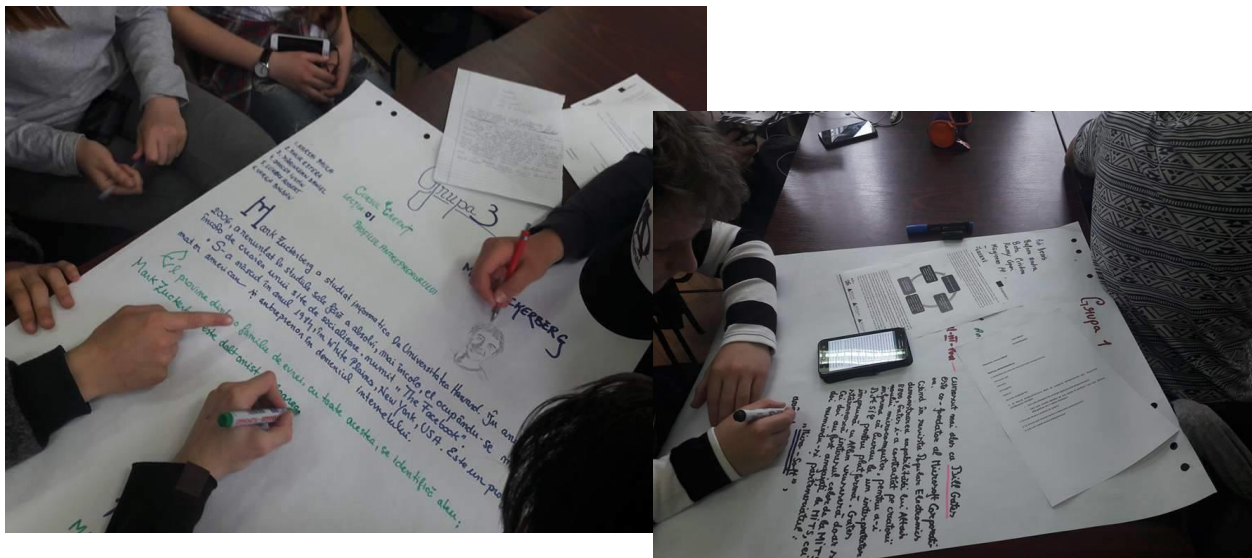


Chart 3. Skills developed by GREENT lessons piloted in Romania, according to piloting teachers.

The Romanian teachers who piloted the content saw a number of cross-curricular links of the respective piloted lesson with the subjects from the compulsory curriculum that they teach – mainly Economy and Entrepreneurship.





## II. Teacher feedback and recommendations on individual lessons

### Lesson 1. Introductory lesson. Pre-test and collection of expectations

- A link should be made between the video and GREENT goals, so that students work well in the expectations part.
- The activity called 'Guess the entrepreneur' helped students improve their teamwork skills and communication.

### Lesson 15. The four system conditions and the four sustainability principles

- The concepts of Country ecological footprint and Earth Overshoot Day were very interesting for the students.
- The 3 R's practical activity went really well.
- A recommendation is that the definition and explanation given for the ecological footprint should be affirmative rather than negative.

### Lesson 17. Sustainable solutions in everyday life – global and local impact

- The development of creativity and teamwork to solve the tasks in the lesson is particularly useful.

### Lesson 18. Examples of sustainable businesses

- Students liked very much the examples of sustainable businesses presented in the lesson and came up with their own ideas.

### Lesson 19. What is entrepreneurship?

- The entrepreneur profiles and the self-assessment of the entrepreneurial spirit went very well.
- The theoretical part should not consist only of a glossary of terms.
- The lesson could include more activities to encourage students' creativity.
- Elon Musk's entrepreneur profile was the strength of the lesson. Tesla's efficient allocation of resources demonstrates its economic performance.

### Lesson 20. What is green entrepreneurship?

- The discussion about green entrepreneurship went particularly well.
- The examples presented in this lesson develop students' creativity. They become aware of the concepts of green entrepreneurship and social entrepreneurship.

### Lesson 21. Green economy

- The parts that went well were the case study, the entrepreneur profile and the activity 1: Global Green Economic Index.
- The second practical activity is too time-consuming.
- Maybe a Glossary of Terms would be useful to explain the indicators from the practical activities section.

#### Lesson 24. Sustainable business model canvas

- The case study went really well.

### III. Overall teacher self-assessment after delivery of all planned lessons

Apart from the feedback and recommendations teachers gave after piloting each lesson, they were asked to fill in a short self-assessment survey designed to gauge their perception regarding possible improvements in the level of their teaching skills and knowledge as a result of participating in the pilot. A total of 8 teachers from Romania filled in the survey although more teachers participated in the pilot. The results from the survey are presented in the chart below:

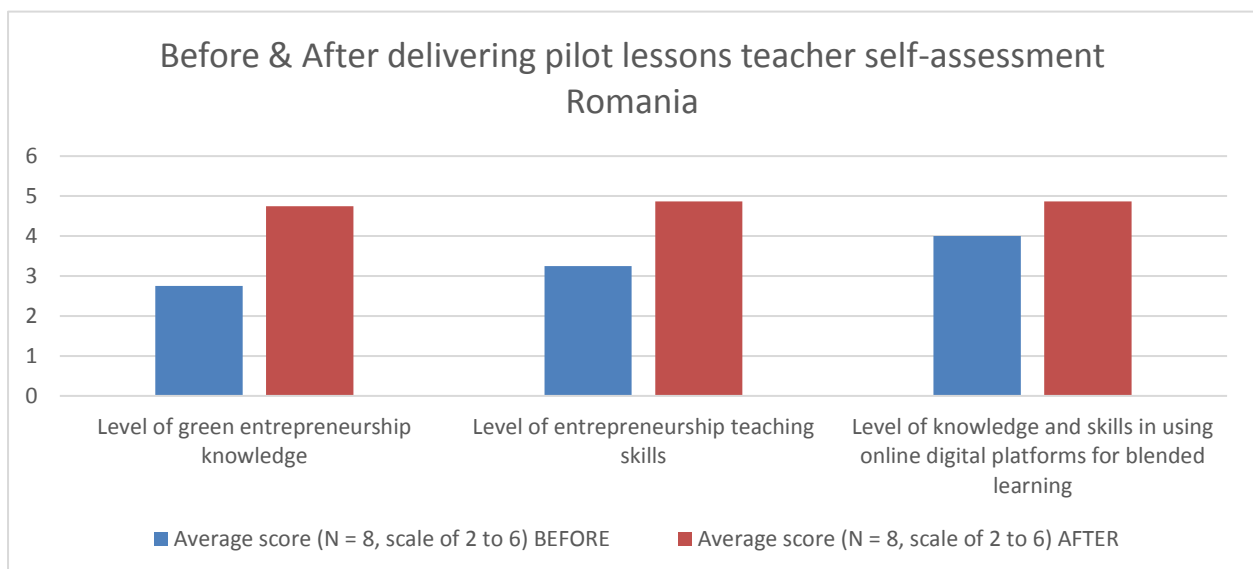


Chart 4. Before & After delivering pilot lessons teacher self-assessment for Romania

Several important comments and recommendations to GREENT overall were made by Romanian teachers:

- Through GREENT, teacher had the opportunity to teach in a more appealing and motivating way. Students have shown particular interest in the proposed themes and techniques and often remained after the class hours – it was as if students had finally received the lesson type for their level and with all the technical means appropriate for them.
- Perhaps there should be a student's manual too (glossary of terms, relationships).



- The lessons for teachers should be more structured in a didactic sense.

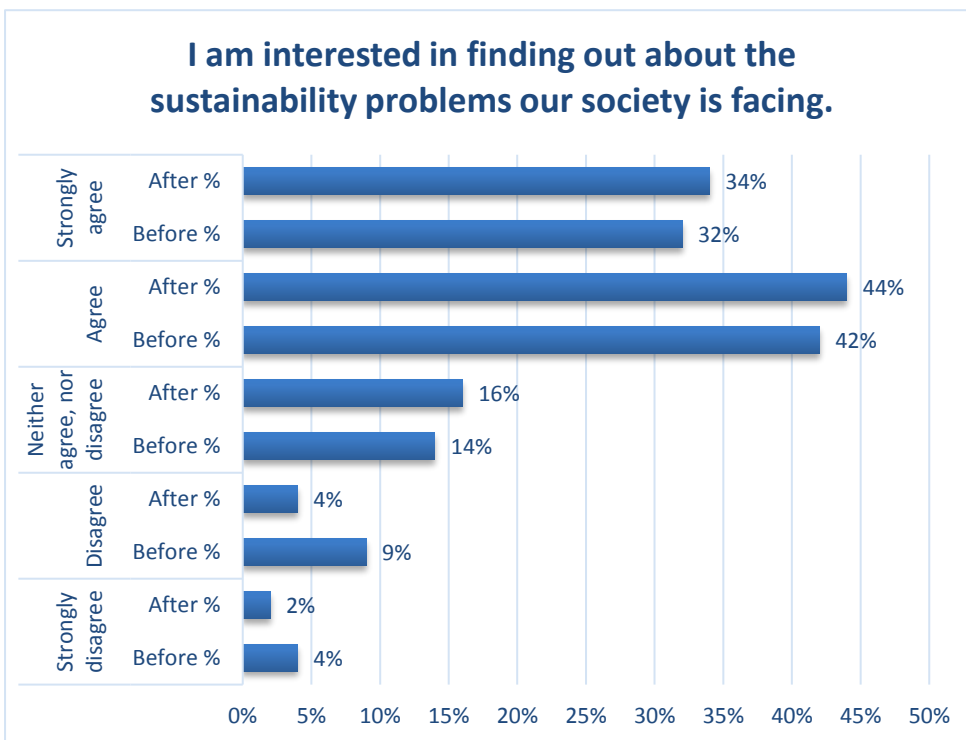
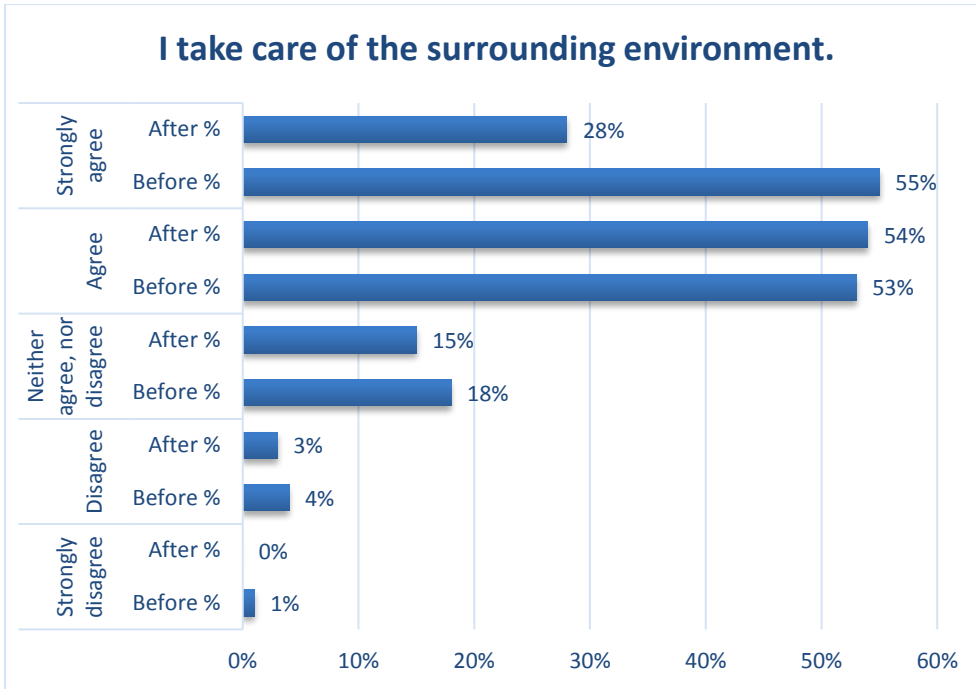
Of the 8 teachers who filled in the self-assessment survey, 6 declared their desire to implement the whole GREENT course in 2017-2018 school year.

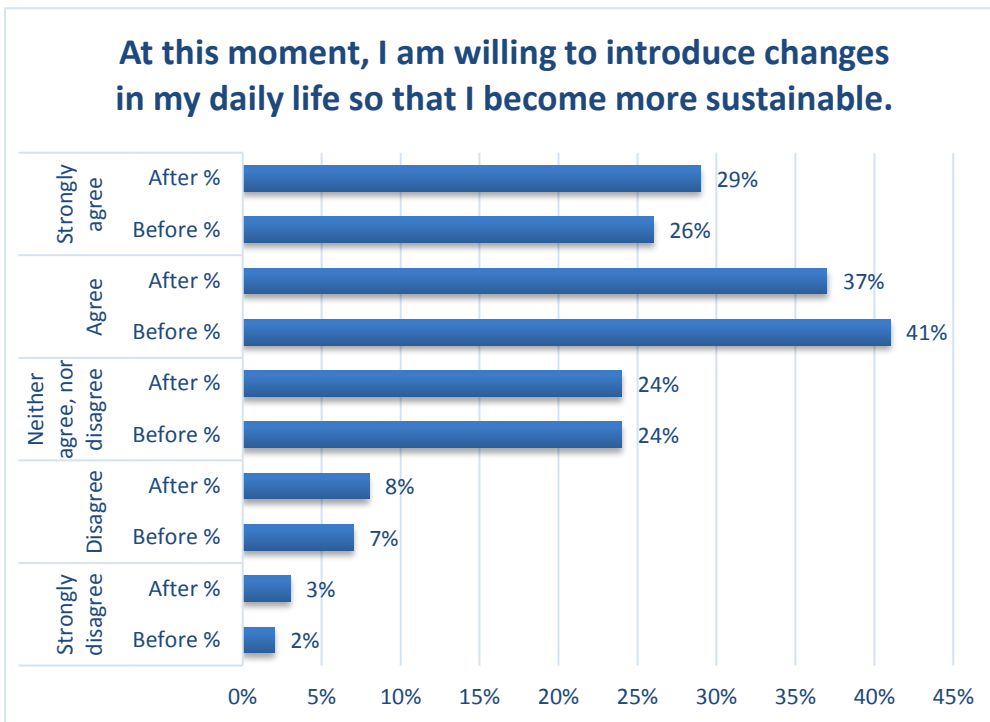
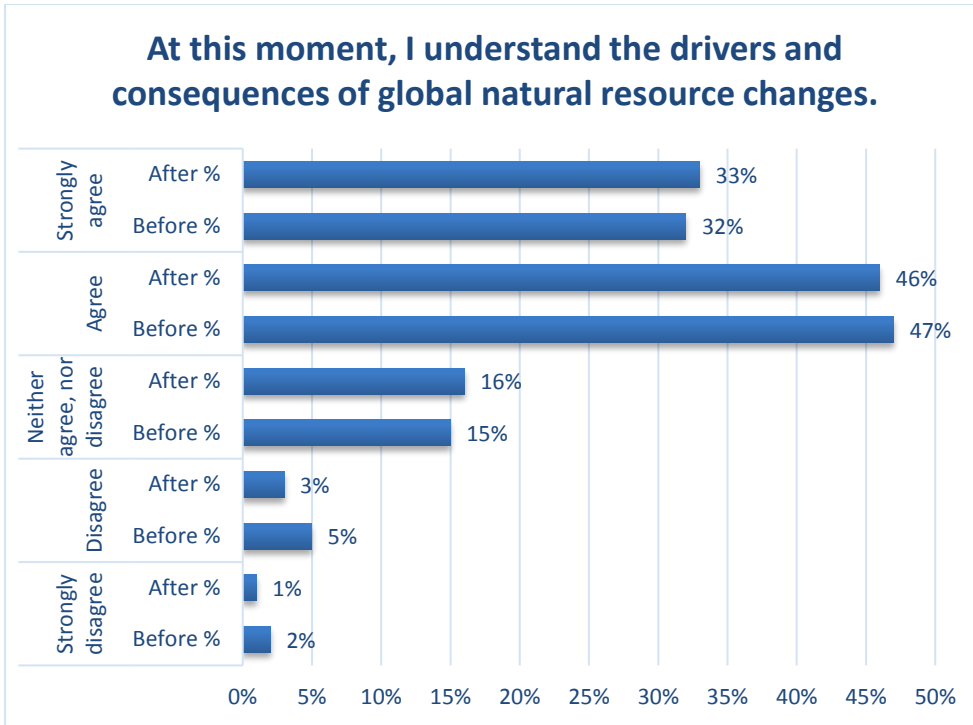
#### IV. Student pre- and post-test results

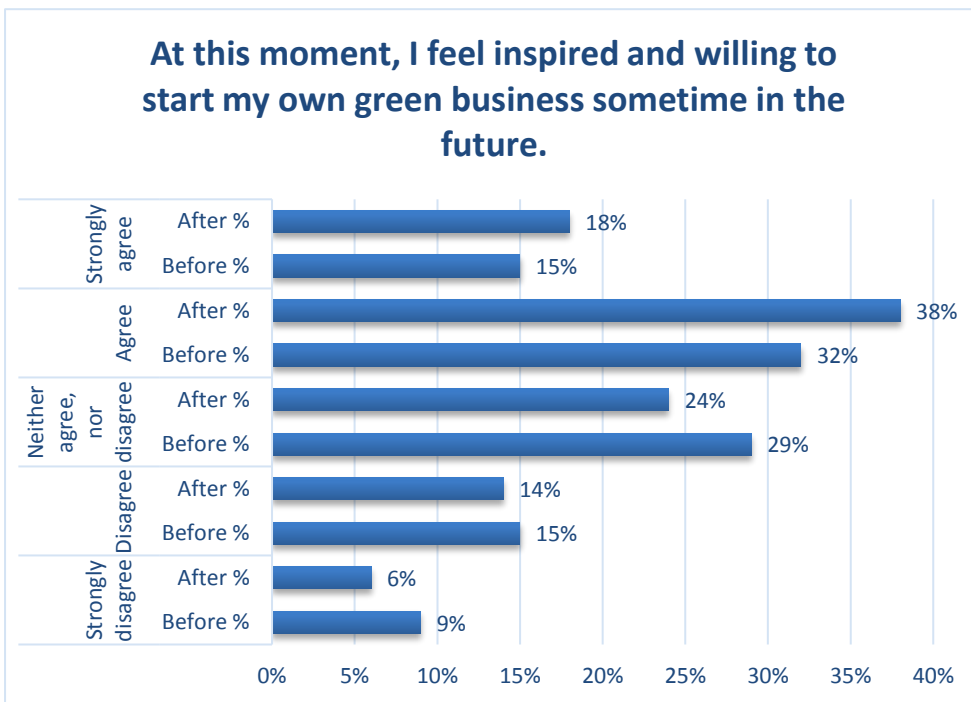
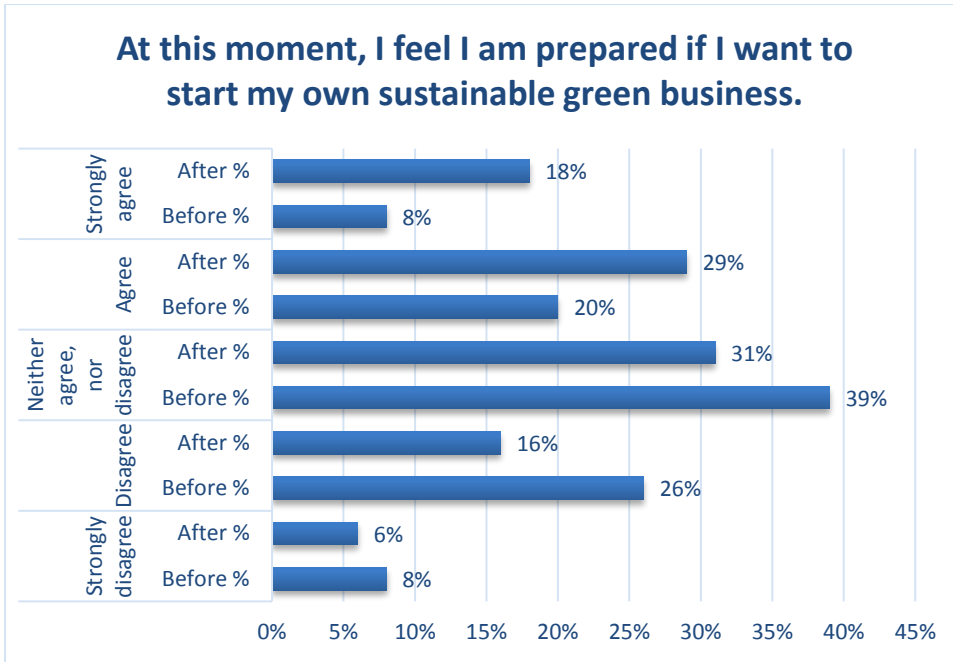
In order to gather information on the improvement of students' knowledge and perceptions, we designed a test with 10 closed- and open-ended questions which teachers were asked to distribute to students before and after the piloted lessons. The results should not be treated as too reliable, as some students who took the test were exposed to only 1 pilot lesson while other were exposed to 3 and more, thus the level would undoubtedly vary because the test questions cover aspects from several of the GREENT lessons. Also, mainly due to the fact that the piloting was done at the end of the school year, many students did not fill in the post-test (and filled in only the pre-test) which does not allow us to compare like for like. However, we believe it is useful to present the results as a vantage point.

In Romania, a total of 227 students completed the pre-test and 117 completed the post-test.

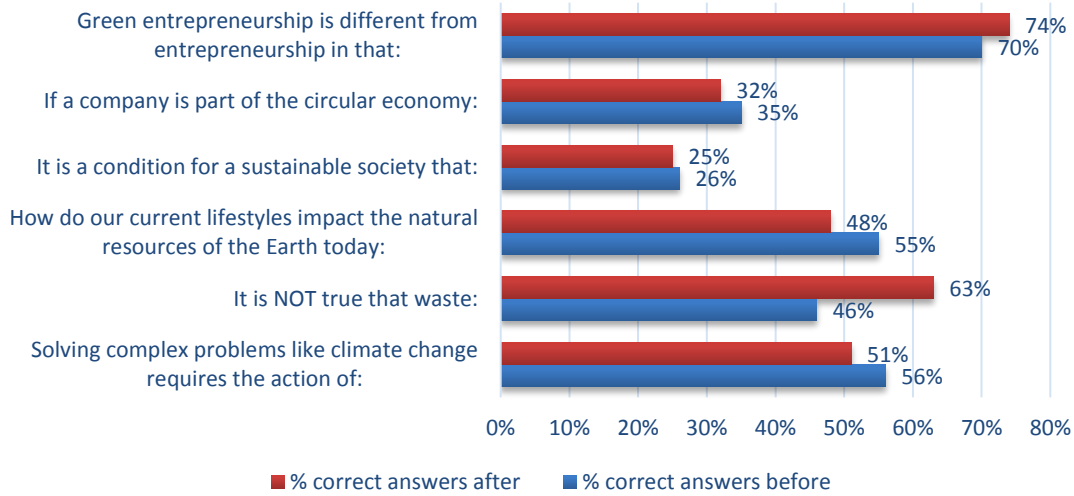








### Correct answers on knowledge questions Romania



### Students' perception of the value of GREENT Romania

