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1. Introduction

1.1. Objective and scope of the research

The following synthesis report is realized in the scope of the Greener Green project (2021-1-ES01-KA220-SCH-000032687), financed by Erasmus+ program.

Greener Green is a project which aims at installing the values of a greener world from the start: to children as young as 6 years in Primary schools, their teachers, and their families. The Greener Green project will provide these target groups with an Evaluation and Assessment tool on how “green” their school is, action plans, training, lesson plans for teachers and even a fun platform where noticeably young children can record their green actions, get rewarding praise and motivation to continue.

The Greener Green project aims at providing primary school teachers with an educational program which will support their digital and green skills to advance their school to the next eco-level. It also aims at involving the pupils and turning them into active players in the sustainability and climate change mitigation platform by the use of the Greener Green, good actions achievement platform. And finally, in involving the students’ parents by educating them through the changes and actions of their school. In that way all local social players (teachers, pupils, parents), will cooperate and transform local society by implementing small attainable actions. To create the training program and the Greener Green platform, the knowledge levels and the needs of the target groups were investigated, so that whatever is created is relevant and useful.

During the research phase before the initiation of the project, the applicant observed how the levels of knowledge among teachers, students, and parents in European primary schools about Sustainability, eco-conscious practices and environmental concerns varied to a great extent. Furthermore, the definition and practices of a “green school” seemed to have great differences from one European country to the other. Some countries have a solid national, regional, or local strategy and policy regarding “green practices” whereas others, have individual decision making and practices at each school, or even, unfortunately, very few measures taken to support Europe’s Green Priority and sustainable future.

The four National reports (Italy, Greece, Spain and Belgium & Luxembourg), collected as preliminary research, are put together in the following synthesis report. The synthesis will hopefully assist the reader in understanding the status quo of schools, teachers, pupils, and parents in the different countries regarding “green practices” and “green education”.

1.2 Methodology

The scope of this preliminary research was to collect information and results useful to develop, in the next steps, a new tool that allows primary schools to discover how sustainable their institution is, to help the school on being more sustainable (through a digital training platform) and create a motivating platform where good practices are rewarded.

The national reports describe the situation regarding “green practices” and “green education” in a European country investigated by a Desk and a Field Research.

The Desk Research is an online research using credible and serious sources. In this research, the current and forthcoming legislation in the country has been studied, also the different initiatives available in the country have been sought and the existing organizations or groups that work to educate in sustainability have also been researched. The investigation has been conducted between April and June 2022. A short resume for each participating country can be found in section 2.

In order to conduct the Field Research, the different countries prepared three online questionnaires (through Google Forms Office) with the same questions, but in their own language: one for teachers in Primary schools, a second for students in Primary schools and a third for their parents. Afterwards, Focus Groups were organized with teachers, pupils and parents, in which the results of the online questionnaires were discussed. This Field Research was conducted by a different organization in each participating country and they therefore show some differences.

In Greece, an online questionnaire for teachers of 11 different schools was conducted (40 responses), but not for the students or their parents. In Belgium & Luxembourg and in Spain, two online questionnaires were conducted, one for students (relatively 38 and 197 responses) and another for teachers (relatively 16 and 25 responses) of different schools. Only in Italy, all three target groups (137 students, 11 teachers and 52 parents) were questioned. All students, teachers and parents that participated in Italy belong to the same school (the European School of Varese).

In Belgium & Luxembourg, one focus group was organized with 9 participants (a mix of teachers, parents and students from different schools). These participants were chosen as they expressed an interest in the project. In Spain and Greece, one focus group was organized for each target group with 5 to 10 participants each. In contrast to the focus group in Belgium & Luxembourg, all participants belonged to one school (the Primary School of Vereia in Greece and the Bell-Lloc School in Spain). In Italy, they did not organize one single Focus Group for students, but the students of five different classes of the European School of Varese were questioned in their classroom. The teacher summarized the general idea of the class, making sure that each of the students agreed with what was reported in the research. With the teachers, one Focus Group was organised in the school (5 participants). And concerning the parents, a questionnaire in online form was launched again at 20 parents. Five of them responded.

2. Desk Research Results

2.1 Belgium

Belgium is a federal state composed of three linguistic communities and three regions.

The governments of each community are, among other competences, responsible for education and culture. They define the priority missions of the compulsory school, which are described in the “mission decree”. Examination of this text reveals some points of support for or encouragement of the education on the environment and sustainable development (ErEDD) in schools, but reductive.

The regions, on the other hand, support a large number of non-profit associations that are available to teachers to carry out ErEDD activities, whether in the classroom or in the school environment, or in particular sites, or even during green or blue class trips. The regions also finance flagship operations in which schools can participate or launch calls for projects on different themes. They also publish awareness-raising tools, which are generally offered free of charge.

2.2 Greece

Under the auspices of the Ministry of Education, Research and Religious Affairs, a series of educational programs have been developed which aim to raise awareness of environmental issues among the Greek population and specifically among school students. These are educational programs that address pressing issues on environmental issues and sustainable development. Since 1978, Primary Education has adopted an innovative educational process, that of Environmental Education. The Directorates of Primary Education operate an Environmental Education Office whose responsibilities include providing information and material to schools, developing partnerships with environmental organisations, NGOs, health education, universities etc.

2.3 Italy

There are some laws, policies and directions issued by the Ministry of Education of Italy regarding green schools or environmental issues.

- The eight didactic paths given by the Ministry of Education are intended as “a path from which to start to build new educational paths”.
- In 2015, the government developed a law that requires the updating of the National Strategy for Sustainable Development, which will be a coordination tool between Italy and the 2030 Sustainable Goals Agenda.
- According to its 2018 National Adaptation Plan, Italy has developed a complex climate communication system. This Plan combines training, access to information, and awareness raising campaigns.
- On a large scale, the Italian government introduced the new LIFE 2021-2027 Program that will comprise 4 sub-programs: (1) Nature and biodiversity, (2) Circular economy and quality of life, (3) Climate change mitigation and adaptation, (4) Transition to clean energy.

2.4 Spain

Sustainability education has existed and has been working in Spain for many years, we could say that with insistence since 1999, when the first reference document in this regard was published. However, it has never been ahead of what European regulations have suggested. It has been advancing and transforming itself slowly and with great obstacles, such as the economic crisis of the years 2008-2014.

In many schools, sustainability education is worked on through a specific course or a syllabus in a specific course. The teachers are motivated by this topic, and are aware of its role in society, but show a lack of resources and time to teach it. Also, that they have not participated in specific training programs in the field to feel safe with certain topics.

3. Findings from the students' online questionnaire

The aim of the students' online questionnaire is the identification of digital skills as well as the knowledge of the participants surrounding the environment and the degree of eco-friendliness of their schools. The collected results could ultimately help determine the resources that are needed and the areas where further training for teaching staff is needed.

Almost 200 Spanish students between the ages of 9 and 14 from four different schools responded to the survey. In Italy, the survey was completed by 137 students of 10 and 11 years old, all of the same school (the European School of Varese). The survey also was completed by 38 students between 10 and 14 years old from both Belgium and Luxembourg.

3.1 Findings

3.1.1 Digital Skills

A large majority of the Italian and Spanish students – between 90% and 95% – uses the internet to search for information for their courses or tasks, using the computer in most of the cases. In Belgium and Luxembourg, only 70% of the students use internet for research related to their courses. Less than half of them use the computer to do so.

Despite their early age, 90% of all the participating students feel comfortable writing on a computer. 60% of the students are comfortable filling out a spreadsheet with a computer, except for Italy where only 40% of the students admitted that they have no difficulties filling out a spreadsheet on a computer. The fact that most of the participants seem to have no difficulties using a computer may be linked to the fact that most schools offer learning programs for digital skills.

The computer is not only used for school, but also for extracurricular activities and hobbies such as video editing and video games. However, these results were more diverse. Almost 40% of the students in Belgium and Luxembourg, 60% of the Spanish students and 90% of the Italian students indicated that they use the computer for recreational activities.

When asked about the mobile devices used at school as part of courses, the most dominant one in every country was the computer (85-95%). The use of other mobile devices differs a lot from one country to another. In Belgium, Luxembourg and Italy, the interactive digital board is slightly less used than the computer (70%), but in Spain only half of the students indicated that an interactive digital board is used at school. The tablet is in Belgium and Luxembourg as popular as the interactive board, but in Spain and Italy only 30-35% of the students indicated the tablet. Surprisingly, 35% of the students in Italy admitted that a smartphone is used at school as part of their courses, while this is not the case in Spain, Belgium or Luxembourg.

Almost all participating students feel comfortable using education mobile applications or collaborative digital learning platforms. The percentage of students that responded that they effectively use these collaborative digital learning platforms is slightly lower (75-85%).

80-90% of the participating students indicated that their school use a digital platform to inform and communicate with the parents, except for Belgium and Luxembourg where only half of the students responded positively to this question.

When was asked about the areas in which the students feel they need further training (use of office software / use of digital learning platforms / knowledge of digital educational tools / use of digital learning materials), for each of the proposed areas 30 to 40% of the Spanish and Italian students feel that they need further training, except for knowledge of digital educational tools where 80% of the Italian students answered positively. Surprisingly, most participating students from Belgium and Luxembourg believe that there are no areas in which they need further training. Around 26% of the participants need to improve their knowledge surrounding digital tools for educational purposes and only 16% believe that they need further training for using office software.

75-85% of all students would like to learn about ecology and pollution and how to protect the planet with mobile devices and online digital media.

3.1.2 Competences education and training “Green Deal – Greener”

Surprisingly, 30% of the Spanish students indicated that there are no recycling bins in their schools, while almost all schools of the participating students from Belgium, Luxembourg and Italy have recycling bins. But the presence of recycling bins does not guarantee a litter-free school environment. Consequently, the students report that there are not enough recycling bins at their school, especially in Italy (80% versus 30% in the other countries). Another problem is the fact that the recycling bins do not always have the right things in them (plastic in the bin for plastic etc.), this problem is again the biggest in Italy (85% versus 50% in the other countries). However, 60% of all students think that their school does enough on litter issues. In Italy this is only 25%.

Of all the participating students in Belgium and Luxembourg, 70% learned at school about the problems caused to the environment and wildlife. In Spain and Italy this was respectively 80% and 90%.

In Spain, half of the participating students indicated that their school is not acting enough to save energy and water. In Belgium and Luxembourg about 70% indicated this, while the Italian students indicated that their school is acting enough to save energy, but not enough to save water. Regarding energy, very few students know how much energy is being used/saved by their school, except for Italy, where almost 50% answered positively on this question.

All of the students in Belgium, Luxembourg and Italy indicated that their school has trees in the grounds. Unlike the Belgian and Luxembourgish students, almost all of the Italian students know that there is a variety of native trees at their school. In Spain, many students know this as well, but 15% of the students admitted that they have no trees in the grounds at school.

Only half of the students said that biodiversity is being used for education purposes at school, for instance through school excursions in nature. This is disappointing, given the fact that most of the students are interested in learning more about saving the planet at school, which could be taught

through such excursions. Students also believe that learning about the tools and methods for protecting the environment might be the most effective way of doing so, which once again could be achieved during field trips.

20-25% of the students want to learn more about environment and climate literacy and 30-40% of the students want to learn more about tools and methods to act (only 15% in Italy). Finally, 15% of the students would like to know the best practices of other schools (more than 60% in Italy).

Some Spanish students highlighted that they would like to learn more about these kinds of problems, that they would like to be informed about what is happening in the world. They think their school assumes that they are already being informed about these things at home.

3.2 Summary of the results

In primary schools, the most used mobile device is definitely the computer. Interactive digital boards, tablets and smartphones are used as well, but this varies a lot from school to school and from country to country. Schools are using mobile devices, mobile applications and digital platforms to prepare lessons, to teach and to communicate with parents.

Despite their early age, primary school students feel comfortable using computers or other mobile devices. This may be linked to the fact that most schools offer learning programs for digital skills and the fact that the computer is not only used for school, but also for extracurricular activities and hobbies.

Most of the primary schools are teaching about the problems caused to the environment and wildlife, but only half of the students said that biodiversity is being used for education purposes at school.

Most schools show very few concrete actions. According to the students, most of the schools are not acting enough to save energy and water and many students admit that there are not enough recycling bins at their school. Moreover, even if they have recycling bins, they do not always have the right things in them.

However, students are very interested in learning how to protect the planet. They want to learn more about the environment, ecology, pollution, etc. They believe that learning about tools and methods for protecting the environment might be the most effective way to do so.

4. Findings from the teachers' and parents' online questionnaire

This section is a summary of the results from the teachers' and parents' questionnaire of a survey carried out as part of the Erasmus+ Greener Green project. The aim of the survey is the identification of digital skills as well as the knowledge of the participants surrounding the environment and the degree of eco-friendliness of the schools. The collected results could ultimately help determine the resources that are needed and the areas where further training for teaching staff is needed.

The survey was answered by 16 teachers from both Belgium and Luxembourg, 25 teachers from Spain, 11 teachers from Italy and 40 teachers from Greece, most of them from primary education, but there was also a small percentage of the Spanish and Greek teachers from secondary education. In Italy, this survey was also completed by 52 parents of primary school students.

4.1 Findings

4.1.1 Digital Skills

The majority (85 – 95%) of the participating teaching staff uses a computer, either for preparing their lessons or for teaching purposes, except for Greece where 75% of the teachers answered that they do not use computer equipment to prepare material or to teach in a classroom.

Only 10-12% of the participants rate their digital skills to be low to very low (a score of 1 or 2 out of 4). In Belgium and Luxembourg this is a bit higher (25%). Most of the teachers indicate that they have sufficient knowledge about the use of office software (word processor, spreadsheets, presentation software, multimedia software, etc), again except for Belgium and Luxembourg where this is a bit lower.

When asked for the office software that the teachers typically use to prepare lessons or to teach, Word Processing (like Microsoft Word) was the most popular one, except for Spain where presentation software and internet browsers are even more popular. Multimedia software are also used a lot, but spreadsheets, on the other hand, are less used by the participating teachers, especially in Greece (only 2%).

Half of the participating Italian and Grecque teachers indicated that their school has a digital learning program in place for students, while the other half have not. In Spain, more than 70% of the schools have such a learning program. In Belgium and Luxembourg, on the other hand, almost 70% of the schools that the participants are employed in, no dedicated teaching program for digital skills is present.

By contrast, almost all schools of the participating teachers do have a digital platform to inform and communicate with parents, except for Greece where 30% of the teachers reported that they are not familiar with this way of communication.

In the participating countries, between 40 and 60% of all teachers actively use educational mobile applications or collaborative digital learning platforms (classcraft, kahoot, moodle,...) for their courses. But when asked for the skills that the teachers have to use these education mobile applications, a multitude of responses was given. In Belgium and Luxemburg, more than 70% gave a score of 1 or 2 out of 4 (very poor or poor skills). In Italy these skills are low as well, while in Greece the skills of the teachers to use education mobile applications are a bit higher (about 50% gave a score of 1 or 2). The best results were found in Spain, where only 35% indicated that they have poor or very poor skills to use education mobile applications.

The mobile devices that teachers use in the classroom, varies a lot from country to country. In Belgium and Luxembourg about half of the teachers don't use any digital tool at all. The other half uses the computer, and in some cases a tablet. In Italy, both interactive digital boards and computer are used by almost every teacher and some teachers use a tablet. In Spain and Greece, the most used digital tool is the computer, but tablets and interactive digital boards are also used a lot. Smartphones are almost never used by teachers in classrooms, except for Greece, where 20% of the teachers indicated that they do use a smartphone as digital tool with their students.

In Spain, Italy and Greece, almost every participating teacher have attended a training program dedicated to digital skills as part of their teaching/professional duties. This is not the case in Belgium and Luxembourg, where in almost 70% of the schools that the participants are employed in, no dedicated teaching program for digital skills is present.

The traditional classroom teaching (face-to-face) still seems to be the most prevalent form of teaching, in every participating country. In Belgium and Luxembourg, most teachers also support webinars and self-educating for teaching purposes, while this is less the case in Italy and Greece and definitely not the case in Spain. Hybrid teaching exhibits the most contrasting results in every country. Some teachers don't support hybrid teaching at all, while others appear to use it a lot.

The participating teachers in Belgium, Luxembourg, Spain and Italy believe that there is a great need for training regarding the knowledge of digital educational tools. Most of them admitted that they also need some training to use digital learning materials and digital learning platforms. Teachers generally consider that they don't need extra training to use office software. We see different answers in Greece. For the use of office software, digital learning platforms, digital learning materials as well as the knowledge of digital educational tools, there was 35 to 45% of the Greek teachers each time who said that they could use some extra training in that area.

Finally, most participants seem to be interested in using a digital platform for tracking and evaluating their efforts towards making their school "greener".

4.1.2 Competences education and training "Green Deal – Greener"

The participants appear to be aware of the term "sustainability", which refers to living in a way that does not harm the planet in the long run, acting with consideration towards the finite nature of resources. Moreover, an astounding majority of the participating teaching staff is involved in ecological activities: from 75% in Italy and Greece to 85% in Spain, Belgium and Luxembourg. In

Italy, this survey was also completed by parents of primary school students. 40% of these parents indicated that they are involved in any ecological activities.

More than 90% of all participants in all countries are familiar with avoiding litter pollution. Respecting green spaces, saving energy and water and protecting and respecting nature are also employed by most teachers and parents. Some (40-60%) teachers and parents are also involved in saving animals and planting their own vegetables.

Despite emerging environmental issues, such as climate change and conservation, more than 50% of the participating teachers in Belgium and Luxembourg believe that schools don't engage enough to offer solutions and prepare the future generations. This applied to 35-40% of the teachers in Spain and Greece.

In Belgium, Luxembourg and Spain, more than a third of the schools don't participate in any projects related to ecology, while almost all Greek teachers and all Italian teachers and parents reported that their school is involved in green projects.

About 80% of the Belgian, Luxembourgish and Greek teachers indicated that their school has already taken measures regarding waste separation, as well as 80% of the participating parents in Italy and 100% of the participating Italian teachers (but they all teach in the same school...). In Spain, only 40% answered that their school have sorting measures in place. Regarding the implementation of measures to reduce waste, about 80% of the teachers reported that their school has already take initiatives to reduce waste. In Italy, this is even higher, indicating that the European School in Varese (Italy) has taken initiatives regarding waste reduction.

Most schools (60-65%) don't appear to take ecology into consideration when buying material and school equipment, except for Greece where 55% of the teachers answered that their school is following an eco-friendly policy regarding materials and equipment.

More than half of the participating teachers in Belgium, Luxembourg and Spain provide meals with local, seasonal, environmentally friendly products in line with Fairtrade and eco-label standards. This is even 75% in Greece, but only 25% in Italy.

In terms of resource consumption, half of the Spanish and Greek schools has implemented methods for saving energy. In Belgium and Luxembourg, this was less than half of the schools (44%). In Italy, all teachers and parents of the European School of Varese answered positively. Regarding water-saving measures, only 20% of the Belgian and Luxembourgish participants indicated that their school is making efforts. In Spain and Greece, this is 40-45% and in Italy 60%.

In Belgium, Luxembourg and Greece, only one third of the participating teachers said that their school has measures in place to limit food waste. In Italy and Spain, this was respectively 45 and 55%.

While 50 to 60% of the schools take initiatives to preserve biodiversity and nature or to improve the living environment, most of them have never conducted an impact assessment (environmental

audit, carbon footprint, environmental diagnosis, etc.) or monitored its resource consumption (water, energy, paper, sustainable meals).

About 80% of the participants in Spain, Italy and Greece stated that their school has taken initiatives to promote a healthy lifestyle among students and about two third of the teachers stated that their school involves their students in making decisions to protect the environment. In Belgium and Luxembourg, only 55% of the schools actively try to promote a healthy lifestyle among students and in only 30% of the Belgian and Luxembourgish schools, students are able to take part in the decisions-making process regarding actions for environment protection.

Few teachers believe that students are enough involved in the decision-making and effectiveness of green practices in their school (20% in Belgium and Luxembourg, 30% in Spain and 40% in Greece).

Most of the schools are familiar with active teaching practices and have taken steps to facilitate and promote teacher training in the workplace. Almost all schools organise interdisciplinary activities or projects. Moreover, the participants in the survey find that their school's environmental education projects affect all the following skills: the ability to develop critical thinking skills, to be creative, to identify problems and assess opportunities for green deal actions, the ability to show empathy, responsibility and solidarity, to work and act in a collaborative team, to communicate, argue, debate about one's own values and principles and the knowledge of climate and environmental issues.

When asked in which areas surrounding the environment the participants require further training, "knowledge of solutions, good practices and green projects" emerged as being the most important. Other areas in which many participants require training is "essential knowledge to address in class climate change, the state of the environment, the loss of biodiversity, production and consumption patterns" and "knowledge regarding good mobilization and communication practices". Finally, although still valued as important by some teachers, others appear to need less training in areas such as "access to educational resources", "knowledge of active learning methods", "project management" and "managing and conducting meetings".

The last part of the questionnaire was dedicated to assessing the potential obstacles to carrying out a "green" project in school. The time associated to a project of such a scale appears to be the most important obstacle to be considered. Only a few participants associated little importance to that obstacle. Another very important factor to consider are the means of financing the projects (the funding for improvement measures). Most participants believe that institutional support and a shared awareness and knowledge of "green deal" issues could also be a hindrance for carrying out such a project. Participation of the teachers also appears to be an important obstacle, even more important than getting students to participate, which many estimated to be not an obstacle at all. The only obstacle for which the answers varied a lot from country to country was the participation of the parents. About half of the participants believe that this is a rather important obstacle, except for the Italian teachers/parents who don't think that this is important. Surprisingly, most of the Belgian and Luxembourgish participants believe that the participation of the parents could be a hindrance for conducting such a project.

4.2 Summary of the results

The traditional classroom teaching (face-to-face) still seems to be the most prevalent form of teaching, more than webinars, self-education and hybrid teaching.

In primary schools, the most used mobile device is definitely the computer. In the classroom itself, not only the computer is used. Some teachers also use interactive digital boards or tablets, while others don't use any mobile devices at all during their lessons. However, almost all the teachers in primary schools use a computer for preparing their lessons, except for Greece where the majority stated that they don't have computer equipment in their classes for educational purposes. It is noteworthy that almost all teachers have a good knowledge of computer usage, in Greece as well as in the other countries.

The most used digital media are word processing (like Microsoft Word), presentation software, multimedia software and internet browsers. Spreadsheets (like Microsoft Excel) are less used. The teachers also need a computer to have access to a digital platform to inform and communicate with the parents of the students. Many teachers actively use educational mobile applications or collaborative digital learning platforms, but a lot of teachers admitted that they do not have enough skills to use these applications properly. Teachers are more confident in using office software like word processors, spreadsheets, presentation software...

Even though most teachers have attended a training program dedicated to digital skills, they still believe that there is a need for training in some areas (for instance the knowledge of digital educational tools or the use of digital learning materials and platforms).

Most of the teachers are involved in ecological activities. The parents as well, but to a lesser extent. Teachers try to avoid litter pollution, to save water and energy, to protect and respect nature ... However, far from all schools are participating in projects related to ecology.

Let's start with some positive results. Schools are not only taking measures regarding waste separation, but they take also measures to reduce waste. The health of students also appears to be important for schools, since most schools promote a healthy lifestyle among students. Moreover, lots of schools provide meals with local, seasonal, environmentally friendly products in line with Fairtrade and eco-label standards. On the other hand, few schools have measures in place to limit food waste.

There are some other areas for improvement. Schools do not always take ecology into consideration when buying material and school equipment. Barely half of the teachers say that their school is taking initiatives to preserve biodiversity and nature or to improve the living environment. Lots of schools are making too little effort to save water and energy, which is increasingly important in the fight against climate change. Schools can conduct an impact assessment or monitor their resource consumption, but hardly any school has done this so far.

Teachers are aware that there is still much to be improved at their school. Most of them believe that schools do not engage enough to offer solutions and prepare the future generations. They also

believe that the students are not enough involved in the decision-making and effectiveness of green practices at school.

Regarding the environment, the knowledge of solutions, good practices and green projects is the most important area in which teachers want further training. Many teachers admit that they lack some knowledge to address in class topics such as climate change, loss of biodiversity or the state of the environment. However, the most important obstacles that teachers encounter to carry out green projects at school are time and the financial means. Furthermore, participation of the teachers, institutional support and knowledge of “green deal” issues could also be hindrances for carrying out a green project.

5. Findings from the focus groups

Groups of primary school pupils, teachers and parents in every country were interviewed in order to have a better understanding of the current situation in Primary schools with regard to sustainability. This information will help to detect the needs of the Primary schools in different countries, in order to contribute to the construction of the Greener Green tools.

Both in Spain and in Greece, three focus groups of teachers, students and parents (separately) were organized at one particular primary school. In Spain, the three focus groups respectively consisted of 5 students of the 5th and 6th grade, 5 teachers and 5 parents of the Bell-Lloc Primary school. In Greece, the three focus groups respectively consisted of 5 students of the 7th grade, 10 teachers and 5 parents of the Primary School of Vereia.

In Italy, five classes of the European School of Varese had a discussion in the classroom about the results of the online questionnaires. The teachers summarized the general ideas of the class, making sure that each of the students agreed with what was reported in the research. Afterwards, a focus group was organized with 11 teachers. Concerning the parents, an online questionnaire was launched again which was responded by 5 parents.

In Belgium and Luxembourg, one focus group of 9 persons (mix teachers, parents and children) of different schools in Belgium and Luxembourg was organized. Participants were chosen as they expressed an interest in the project. The Focus Group team went through both Teachers' & Pupils' surveys and discussed together relevant topics.

5.1 Recommendations and suggestions by the students

The knowledge of students regarding climate change and sustainability varies a lot from country to country. The Grecque students that participated in the focus group defined 'climate change' as a sudden change in the weather, which demonstrates that they have a vague picture of what climate change is and how it can affect their lives. On the other hand, the focus group in Belgium/Luxembourg highlighted that the students are very much aware of climate changes and the limits of earth resources. However, students of all countries are showing interest in learning more about green topics and in participating in projects concerning sustainability. Many students stated that their parents are conscious of environmental issues and that they discuss with them about sustainable measures such as recycling, not throwing away waste and saving water and energy.

Students explained that they are taught some things at school regarding sustainability but that there is a lack of application. They are eager to take concrete action, but they lack tools where they can find information and concrete suggestions for acting together.

However, there was no lack of ideas during the different students' focus groups. Some students mentioned that they prefer learning in nature above learning on the computer and that they would like a blended learning model that combines digital tools and hands-on application. Some concrete ideas were suggested:

- Adding more recycling bins at school and using different recycling bins to separate waste
- Installing solar panels at school
- Encouraging students to use re-usable boxes instead of aluminium foil
- Encouraging students to use re-usable bottles instead of plastic bottles for water
- Encouraging alternatives instead of using a car
- Planting trees at school
- Watching a funny documentary to learn more about the environment
- Board games, quizzes, books with images
- Lectures given by a professional, activist or someone who is educated in the field
- Give an award for the class that recycles the best or uses most the bicycle

5.2 Recommendations and suggestions by the parents

Parents are aware of what climate change is and what the environmental challenges are that we are facing. Many parents have already taken measures at home such as recycling, reducing plastic, composting and installing of solar panels. Parents highlight the rise in resource prices and that for this reason they are taking action and beginning to be more aware of their consumption. However, they do not have sufficient knowledge about daily instructions for adopting a more ecological lifestyle and appropriate ways of strengthening ecological awareness.

The parents are also aware that school and family are partners to achieve their goals. To do so, parents want more communication between school and them so that they can support school activities and projects of the teachers in their children's classes. For example, if parents know that their children are learning about recycling at school, parents and children will be encouraged to recycle better at home. Another example is that both parents and school need to encourage children to use the bicycle.

5.3 Recommendations and suggestions by the teachers

What is needed according to teachers, is a complete change in the culture of schools to be able to install an environmentally friendly attitude throughout school life. Some measures are already taken at most schools: recycle bins have been set up, they are doing battery recycling and some schools installed water fountains to encourage students to bring their own re-usable bottles, however many more actions should be taken.

The most important obstacles at this moment are 1) the need for more training applied to nature and sustainability for teachers and 2) a lack of time to implement green practices.

Teachers want more specific training about environmental issues (such as climate change, energy consumption and production and biodiversity) in order to be able to teach the students introductory topics about environmental and climate changes. Devoting more time to science is a very worthwhile investment in awareness of sustainability practices.

Just like the parents, the teachers in the focus groups highlighted that an alliance of teachers and parents is essential to continue good practices outside the classroom and to respond to the

intoxication of fake news on social networks. A collaboration not only with parents, but with all school partners (teachers, parents, management, administrative staff, maintenance service...) would have the best results.

Teachers hope that the Greener Green project will propose a whole range of activities adapted to the young age of the students to ensure an increase of climate change awareness and to ensure an increase of the knowledge about earth resources and sustainability. Some concrete ideas were suggested:

- (Illustrated) stories and fables are a good tool to start a project
- Creating with images and words (to enhance students' creativity)
- Self-evaluation
- Involve students in the decisions regarding sustainability made at school
- Challenges
- Establish an exchange of good green practices / tools between schools
- Allow students to track resource consumption
- Install student's own green space: creating onsite green area would lead into pupils measuring real effects and interests
- Students can post communications at the school bulletin board about the green projects
- Listening to climate change awareness songs (songs that are linked with nature)
- Writing fairy tales
- Creation of usable materials from detergent bottles
- Local community support for segregated recycling materials
- Conducting educational seminars

Suggested Course Structure for the Greener Green tool based on teachers' needs and schools' practices and infrastructure :

1. General Digital Skills for Teachers (Electronic Presentations, Internet Navigation, Tools for Teaching)
2. Climate Change (Impact and Mitigation)
3. Waste Separation
4. Energy saving Methods
5. Networking skills (State, Community and Parents) – how to influence each group
6. How to do an environmental impact assessment
7. Motivating my class for the environment (Techniques and Activities)

6. Conclusion

In primary schools, the most used mobile device is the computer, but we cannot assume that every classroom has a computer equipment. Even though most teachers have attended a training program, they still believe that there is a need for training dedicated to digital skills. On the other hand, primary school students are, despite their early age, very comfortable using a computer or other mobile devices. Both teachers and students are interested in using a digital platform for tracking and evaluating their efforts towards making their school “greener”.

This research shows that students are very concerned about the climate, but their commitment also requires a good knowledge of the environment and this is not always the case. It is important to teach the students introductory topics about environmental and climate changes, but many teachers admit that they lack some knowledge to address in class topics such as climate change, loss of biodiversity or the state of the environment. Another important area in which teachers want further training is the knowledge of solutions, good practices and green projects.

A term that returned many times in this research is ‘concrete action’. Most of the primary schools are teaching about the environment, but they show very few concrete actions. Students are very interested in learning more about the environment and about saving the planet and they are eager to take action, but they lack tools where they can find good information and concrete suggestions for acting together. The participants of the focus groups had lots of ideas, but all what teachers, parents and students are asking for are tools in order to translate their ideas into real action (such as green activities and sustainability measures). It will be important to create an alliance of teachers and parents to continue good practices at home and in the municipality where the students live.

The measures that have already been taken by many primary schools are mostly related to recycling. It is clear that there are not as many measures to encourage other aspects of the circular economy as reuse, reduction through responsible consumption or repairability. All this is surely the result of the strong work that has been done in society in general on recycling and not on other measures. The importance of saving resources such as water and energy and an environmental-friendly approach to living does not appear to be communicated enough in schools, as reflected by some of the answers. Moreover, students are not entirely aware of the degree to which their school operates in a “green” way, however, this is understandable given the age of the participants.

The different surveys and focus groups that were done within this study, showed some important obstacles that teachers encounter to carry out green projects at school. The immense time associated to such a project appears to be the biggest problem. But a lack of training for teachers and a lack of financial means makes it even more difficult.

The analysis of the survey responses and focus groups confirmed the usefulness of the Greener Green project. The Greener Green tools can help young people become better equipped to deal with the challenges posed by climate change, and help teachers raise the topic in the classroom in a scientifically sound, engaging and interactive way. This will help to create a culture of sustainability, which increases the knowledge and sensitivity of students, family and teachers in terms of sustainability.

ANNEXES

Annex I – Online survey for students

DIGITAL SKILLS

1. Do you use a computer to prepare or to do your tasks for school?
 - a. Yes
 - b. No

2. Do you use the internet to search for information for your courses or tasks?
 - a. Yes
 - b. No

3. Are you comfortable writing on a computer?
 - a. Yes
 - b. No

4. Are you comfortable filling out a spreadsheet with a computer?
 - a. Yes
 - b. No

5. Do you use a computer during your recreational activities (gaming, video, photo editing, etc.)?
 - a. Yes
 - b. No

6. Which kind of digital media do you use at school as part of your courses (you can choose more than one):
 - a. Interactive digital board
 - b. Smartphone
 - c. Tablet
 - d. Computer
 - e. None
 - f. Other

7. Does your school have a learning program or course dedicated to digital skills (skills to use for digital devices, use of the internet etc.)?
 - a. Yes
 - b. No

8. Do you use educational mobile applications or collaborative digital learning platforms in your course?
 - a. Yes
 - b. No

9. Are you comfortable using mobile applications or collaborative digital learning platforms at school?
 - a. Yes
 - b. No

10. Does your school use a digital platform to inform and communicate with your parents?
 - a. Yes
 - b. No

11. In what areas do you feel you don't know enough things and you could use some training?
(You can state more than one)
 - a. Use of office software
 - b. Use of digital learning platform
 - c. Knowledge of digital educational tools
 - d. Use of digital learning materials
 - e. Other

12. Would you like to learn about ecology and pollution and know how to protect the planet with online digital media?
 - a. Yes
 - b. No

COMPETENCES EDUCATION AND TRAINING "GREEN DEAL – GREENER"

13. Is your school generally litter free (You recycle everything like paper, food packaging etc.)?
 - a. Yes
 - b. No

14. Are there recycling bins in your school?
 - a. Yes
 - b. No

15. Are there enough recycling bins at your school (easy to find and use)?
 - a. Yes
 - b. No

16. Do the recycling bins always have the right things in them (plastic in the bin for plastic etc.)?
 - a. Yes
 - b. No

17. Do you know/learn at school the problems caused to the environment and wildlife?
 - a. Yes
 - b. No

18. Do you think your school does enough on litter issues?
 - a. Yes

- b. No
19. Does your school use recycled paper (for printing and homework assignments)?
- a. Yes
 - b. No
 - c. I don't know
20. Is your school community acting enough to save energy?
- a. Yes
 - b. No
21. Is your school community acting enough to save water?
- a. Yes
 - b. No
22. Do you know how much energy is being used/saved by your school?
- a. Yes
 - b. No
23. Does the school have trees in the grounds?
- a. Yes
 - b. No
24. If yes, is there a variety of native trees/plants? If no, select again no answer.
- a. Yes
 - b. No
 - c. I don't know
25. Is biodiversity (the diversity of plants and animals) being used for education purposes (learning outside the classroom through fieldtrips)?
- a. Yes
 - b. No
26. Are you interested in acting more at school to protect the planet?
- a. Yes
 - b. No
27. If yes, what do you think you need to do for that? If no, select again no answer.
- a. Learn more about environment and climate literacy?
 - b. Know the good practices of other schools?
 - c. Learn more about tools and methods to act?
 - d. No
 - e. Other

Annex II – Online survey for teachers / parents

DIGITAL SKILLS

1. Do you use computer equipment to prepare or teach your class?
 - a. Yes
 - b. No

2. Indicate the extent to which you have skills to use a personal computer?
 - a. 1 – Very poor
 - b. 2 – Low
 - c. 3 – High
 - d. 4 – Strongly

3. What computer programs do you typically use to prepare or teach your class (you can choose more than one)?
 - a. Word processing
 - b. Spreadsheet
 - c. Presentation software
 - d. Internet browser
 - e. Multimedia software (videos, etc.)
 - f. Other

4. Indicate the extent to which you have the skills to use office software (word processing, spreadsheet, presentation, multimedia, etc.)
 - a. 1 – Very poor
 - b. 2 – Low
 - c. 3 – High
 - d. 4 – Strongly

5. Does your school have a digital learning program in place for students?
 - a. Yes
 - b. No

6. Do you use educational mobile applications or collaborative digital learning platforms in your course?
 - a. Yes
 - b. No

7. Indicate to what extent you have skills to use educational mobile applications (classcraft, kahoot), create learning situations on digital platforms (moodle, etc.)?
 - a. 1 – Very poor
 - b. 2 – Low
 - c. 3 – High
 - d. 4 – Strongly

8. Does your school use a digital platform to inform and communicate with parents?
 - a. Yes
 - b. No

9. Which kind of digital media do you use with students :
 - a. Interactive digital board
 - b. Smartphone
 - c. Tablet
 - d. Computer
 - e. None
 - f. Other

10. Have you attended a training program dedicated to digital skills as part of your teaching/professional duties?
 - a. Yes
 - b. No

11. Please indicate the extent to which you support training for each of the following methods?
(Very poor – Low – High – Strongly)
 - a. Presential
 - b. Webinars
 - c. Self-training MOOC, newsletter, methodological guide
 - d. Hybrid (online/offline)
 - e. Other

12. In what areas do you feel you need training?
 - a. Use of office software
 - b. Use of digital learning platform
 - c. Knowledge of digital educational tools
 - d. Use of digital learning materials
 - e. Other

13. Indicate the extent to which you would be in favour of using a digital platform to evaluate and track online your educational best practices and achievements to make your school greener (environmental audit, performance tracking, "greener" progress level?)
 - a. 1 – Very poor
 - b. 2 – Low
 - c. 3 – High
 - d. 4 – Strongly

COMPETENCES EDUCATION AND TRAINING "GREEN DEAL - GREENER"

14. Are you familiar with the term sustainability?
 - a. 1 – Very poor

- b. 2 – Low
- c. 3 – High
- d. 4 – Strongly

15. Are you involved in any ecological activities ?

- a. Yes
- b. No

16. Here are some Green practices, which practices are familiar to you ?

- a. Avoid waste pollution (reuse, recycling, etc)
- b. Respect green spaces
- c. Save energy
- d. Save water
- e. Protect animals and plants
- f. Protect, respect nature
- g. Growing own vegetables

17. Faced with the challenges of climate change and the objectives of preserving the environment in a sustainable manner, please indicate to what extent your school is committed to solutions and preparing future generations?

- a. 1 – Very poor
- b. 2 – Low
- c. 3 – High
- d. 4 – Strongly

18. Is your school involved in an ecological project ?

- a. Yes
- b. No

19. Does your school have any sorting measures in place?

- a. Yes
- b. No

20. Has your school implemented any waste reduction measures (paper, packaging, disposables)?

- a. Yes
- b. No

21. Does your school have an ecological purchasing policy for school materials and equipment (eco-labels)?

- a. Yes
- b. No

22. Does your school offer food with local, seasonal, environmentally friendly, Fairtrade, Ecolabel products?

- a. Yes

- b. No
23. Has your school implemented energy conservation measures?
- a. Yes
 - b. No
24. Has your school implemented any water-saving measures?
- a. Yes
 - b. No
25. Does your school have measures in place to limit food waste?
- a. Yes
 - b. No
26. Does your school take action to preserve biodiversity, nature and improve the living environment?
- a. Yes
 - b. No
27. Has your school ever conducted an impact assessment (environmental audit, carbon footprint, environmental diagnosis, etc.)?
- a. Yes
 - b. No
28. Does your school follow up its resource consumption (water, energy, paper, sustainable meals)?
- a. Yes
 - b. No
29. Does your school have measures in place to promote healthy lifestyle among students and others?
- a. Yes
 - b. No
30. Does your school organise student participation in decision-making and achievement to protect the environment?
- a. Yes
 - b. No
31. Indicate how involved are your students in decision making and achievement of green practices at your school.
- a. 1 - Not at all
 - b. 2 - A bit involved
 - c. 3 - Involved
 - d. 4 - Very involved

32. Is your school familiar with active teaching practices?
- Yes
 - No
33. Does your school organise interdisciplinary activities or projects?
- Yes
 - No
34. Indicate to what extent you believe, your school's environmental education projects and practices affect the following skills (knowledge/expertise/know-how) of your students: (Very poor – Low – High – Strongly)
- Ability to develop critical thinking skills
 - Ability to be creative
 - Ability to identify problems and assess opportunities for green deal actions
 - Ability to show empathy, responsibility and solidarity
 - Ability to work and act in a collaborative team
 - Ability to communicate, argue, debate about one's own values and principles
 - Knowledge of climate and environmental issues (awareness, consciousness, etc.)
35. Does your school have measures in place to facilitate and promote in-service teacher training?
- Yes
 - No
36. Indicate the level of importance of your training needs regarding better environmental skills: (Not important – A bit important – Important – Very important)
- Project management
 - Managing and conducting meetings (collective intelligence)
 - Knowledge of active learning methods
 - Essential knowledge to address in class climate change, the state of the environment, the loss of biodiversity, production and consumption patterns, etc.
 - Knowledge of solutions, best practices and "greener" projects
 - Access to educational resources (exercises, videos, manuals, teaching sequences, etc.)
 - Knowledge of good mobilization and communication practices
37. Indicate the degree of importance of the obstacles you may encounter in supporting your project to make the school : (Not important obstacle / Slightly important obstacle / Important obstacle / Very important obstacle)
- Teacher participation
 - Institutional support
 - Student involvement
 - Parent participation
 - Funding for improvement measures
 - Collaborative work methodology
 - Shared awareness and knowledge of "green deal" issues

h. Time

38. Do you have any suggestions for your professional or school's support needs to make you more ready for the transition to a more environmentally conscious status?