

# Creating a Next Generation Participatory Contest for Young People to integrate Circularity in School Curricula

CircularCityChallenge



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CREATING A NEXT-GENERATION PARTICIPATORY CONTEST FOR  
YOUNG PEOPLE TO INTEGRATE CIRCULARITY INTO SCHOOL  
CURRICULA

## **Deliverable D2.3**

# **Report on curricula, educational tools, methods, and resources**

## Project

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Consortium:

SYNYO GmbH (SYNYO), Austria

The University of Architecture and Urban Planning (UAUIM), Romania

BISS Institute at Maastricht University (MU), Netherlands

Stadtgemeinde Trofaiach (TROF), Austria

Ayuntamiento de Logroño (LOGRO), Spain

Municipiul Bistrita (BIST), Romania

## Deliverable

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## **D2.3. Review of good practices, methods, existing curriculum orientations (UAUIM)**

### **D2.3. 1. Introduction to good practices - methods**

The main questions to be addressed in this section were formulated based on the initial ideas that led to the CCC project application, but also on several main findings from the literature review. As previously presented in the literature review chapter, existing literature on the evaluations of the sustainable development education practices has indicated several aspects that need to be addressed: integrated approach is a major challenge and also the modest impact in terms of competences related to the abilities to act towards sustainability, but also competences of understanding and valuing the benefits of a pluralistic context (multiple stakeholders to be considered).

Hence, in terms of **content**, the main research questions for the present chapter were defined in relation to the CCC project objectives, but also in terms of the chances of this project to increase transformative capacities among students (learning how to act) but also on the level of knowledge about urban circularity within schools or local communities.

***What are the competences that are to be learned in connection to urban circularity and what is the place of this very new topic of urban circularity in the existing sustainable development education guidelines / teaching materials / teaching objectives? (content RQ#1)*** □

Since Circularity is a new topic, and urban circularity is even newer, the official education system can not be expected to produce by itself the content for teaching these new concepts in schools. The second research question that should be addressed in close connection to CCC objectives is therefore on the mechanisms of cooperation that are at work for introducing this topic in the school environment or to this age group in extra-curricular activities happening outside schools but with relevance to the formal education.

***Who are the initiators in the existing practices producing relevant content / messages / teaching materials and what arrangements are made so that this content can reach the children and youth? (collaborations RQ#2) □***

CircularCityChallenge project has an approach that is already proven as appealing to this age group: the competition. Also, one of the main ambitions of the CCC is to help students understand and address real life issues from their community and hence to increase not just their transformative capacity but also the interest for circularity in their communities. In order to define the most adapted submission format in this competition as well as the stages and the objectives of the process before this submission, the focus of the analysis should also include the methods used in project based learning experiences.

***What methods are required for connecting learning processes and results to the real life actors and communities - for this age group and with the aim of inclusiveness and transversal skills such as team work, self-reflection on learning how to learn? (methods RQ#3) □***

Hence, the intention in the selection of existing cases of good practices was based on available methods to find answers to the above questions, but also to the diversity of contexts from the 3 countries where this applied research perspective has been applied: Austria, Netherlands and Romania.

The existing official secondary schools curriculum is not expected to have specific content on the circular cities. This hypothesis was validated through official website analysis of the Ministry of Education in Romania - where all subjects are presented briefly with a brief description of competences to be achieved, and some suggestions on didactic methods.

The first stage was to identify, through desk research, initiatives that reached formal education - with new content related not only to sustainable education in general, but more specifically addressing circularity. The sense of the word curricula has been understood, for this stage of the applied research, not as the formal educational offer, but as teaching objectives, competences that are aimed and also description of the teaching methods to reach those objectives.

The initiatives that are relevant to the CCC project derive from outside the official curriculum, but many of them reach pupils of this age group in activities that are connected to the school environment. Hence, one of the first criteria was precisely the collaboration with schools. but in order to understand the mechanisms of collaboration, the information available online was not sufficient. The method was adapted in connection to finding out collaboration

mechanisms that can better be explained through interviews. Also, some of our interviews were useful not just to understand a case study, but also, for more general questions in relation to the education system as expert interviews but also to the first section on mapping stakeholders and defining involvement strategies for them.

## D2.3. 2. Analysis of the selected examples in terms of curricula, tools and resources

The examples that were analyzed by the CCC consortium from the three different national contexts are presented in **Table 3.1**. As previously stated, the selection was based on both relevance to the research questions and access to information.

**Table 3.1:** Examples analyzed in terms of curricula, tools and resources from three national contexts / Case studies list per country

RO	NL	A
<ul style="list-style-type: none"> <li>• Community Foundation - Sibiu - Youthbank -</li> <li>• Green Mogo - Green schools</li> <li>• Sustainable Cluj Association - Respect for Resources Manual</li> <li>• UrbaSofia - YOUTHPLAN</li> <li>• De-a arhitectura Association - My School Can Be Cool</li> <li>• De-a arhitectura Association - TU_ACT competition</li> </ul>	<ul style="list-style-type: none"> <li>• Leren voor Morgen: Circularity in de Bauw (Construction/Building)</li> <li>• Stichting De Rollen</li> <li>• CNME</li> <li>• Circular flanders</li> <li>• Build Up Skills NL</li> </ul>	<ul style="list-style-type: none"> <li>• KLIMASCHULEN</li> <li>• Zukunftsraum Thayaland, Energy &amp; Mobility</li> <li>• makingAchange</li> <li>• Young Science</li> <li>• Global Action Schools</li> <li>•</li> </ul>

In the following section, the cases from Romania are codified with R, from Austria with an A and from the Netherlands with a R. Each research question is addressed by a very synthetic presentation of the main ideas in relation to the content (3.2.1), to the initiation and the partnerships (3.2.2.) and to the methods and resources (3.2.3).

## **D2.3. 2.1. Content Analysis: (content RQ#1) □**

### **R1 - The YouthBank Sibiu Programme / Community Foundation in Sibiu<sup>1</sup>**

**YouthBank** is a programme dedicated to young high school students from Sibiu, through which they establish and manage a fund intended to finance and implement projects born from the passions of high school students in the city. Through this programme, a new generation of leaders for the private and public sector is being uplifted.

### **R2 - The URBAN-UP! TU\_Act Project / De-a Arhitectura Association<sup>2</sup>**

UrbanUp TU\_act is a part of the UrbanUP Programme of De-a Arhitectura Association - a built environment education for teenagers and youths. TU\_Act - Teens Urban Acupuncture, is ultimately an ideas competition for teams of high-school students where they have to propose intervention ideas for public spaces in Bucharest with teens as the main beneficiaries. The structure is a hackathon followed by a mentored ideas development period and the competition itself.

### **R3 - Respect for Resources Manual Review / Sustainable Cluj Association<sup>3</sup>**

A different type of sustainability education manual created by 2 NGOs from Cluj, in collaboration with students and teachers, to contribute to education for sustainability in Romania. The manual is accompanied by a teacher's guide that includes lesson planning and methodological recommendations for each lesson. In some schools, it was adopted as an optional part of the curriculum at the school's decision (CDŞ program), and in others it will be taught in thematic circles or through practical deepening exercises for other related subjects.

### **R4 - The Education for Sustainable Development discipline / Romanian curricula**

In Romania, there is a very recent curricula for the Education for Sustainable Development Discipline, that actually has a transdisciplinary character, being situated, by field and issue, at an area of intersection of Social Education disciplines and Geography included in the Human and Society curriculum area, with the Biology discipline included in the area curricular Mathematics and natural sciences. It emphasizes the use of educational projects; the products of these projects can be: a website; a video material, a video game or an online

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<sup>1</sup> Fundația Comunitară Sibiu (ro) - <https://fundatiacomunitarasibiu.ro/despre-noi/misiune-viziune-valori>

<sup>2</sup> <https://www.de-a-arhitectura.ro>

<sup>3</sup> CLUJUL SUSTENABIL - <https://www.facebook.com/ClujulSustenabil>



game; a memorandum to the authorities; posters, poster exhibition; articles, a publication; a contest like Who knows, wins; a theater performance/theater forum, etc.

## **R5 - Green Schools<sup>4</sup> - Greeninitiative Association<sup>5</sup>**

Green Schools Initiative aims to focus the efforts of civil society in the field of environment protection to support middle school teachers who want to introduce eco education in the curriculum at the decision of the schools, thus resulting in the optional course "Eco education for Green Schools".

The educational materials consist in:

- a) digital manuals for the optional course Eco education for green schools for the 5th, 6th and 7th grades and the teacher's guide (digital material) and
- b) a collection of non-formal activities on environmental topics - 3 auxiliary teaching materials: a Student's Manual, a Teacher's Guide and a Green Book (manual).

These materials, in two teaching languages, Romanian & English, were tested in different counties/regions in Romania.

## **N1 - Leren voor Morgen<sup>6</sup>**

Leren voor Morgen is an innovation network, connecting people and organizations and doing the groundwork of research. They are active in vocational schools (equivalent for high school). Circular skills in construction is one of their programs that they developed for the Dutch Ministry of Infrastructure and water management aims to promote the development of skills, general thinking for a circular economy in vocational education. They are also interested in social sustainability following that the social side of sustainability is happening within the creation of collaboration with other stakeholders.

## **N2 - CNME De Rollen<sup>7</sup>**

CNME De Rollen is a foundation organizing extra curricular activities for primary and secondary schools. They also work with schools on being eco-schools. They do have two active projects. They believe that sustainability is something everybody wants, but not everybody is able to act upon. If you have trouble with payments, if you have debts or anything like that you're more focused on survival than on sustainability. Therefore, they are active in low socio-economic communities. their approach is based on being visible there and

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<sup>4</sup> <https://www.scoliverzi.ro/>

<sup>5</sup> [www.greeninitiative.ro/home](http://www.greeninitiative.ro/home)

<sup>6</sup> <https://lerenvoormorgen.org/en/>

<sup>7</sup> <https://lerenvoormorgen.org/en/leden/cnme-de-rollen/>

keeping in connection with the locals. They design their educational programs based on sustainable development goals especially on the goal #11.

### **N3 - CNME Maastricht<sup>8</sup>**

CNME Maastricht is a foundation working in collaboration with the local municipality, citizens, and schools. They give consultation to schools in eco-schools projects, provide ecological knowledge to municipalities and provide guest and walk lectures to students. They do design their courses based on SDGs and have an action based learning approach which they operate in collaboration with the SDG House in Maastricht. They also provide energy coaches to households and inform them about how to decrease energy consumption but also act with them by helping in implementations of required actions. They have a project operation stone break by helping households to think of the value of a greener front yard for themselves and for the environment and help them to start their own green projects. They use the SDG framework as a base. They are active in primary schools yet do collaboration with higher education.

### **N4 - Circular Flanders<sup>9</sup>**

**Circular Flanders** is a setting in a nutshell; a public private partnership meaning that they have in a steering group, steering entities of the public and government agencies but also the private sector. They have representations of what they call the societal pentagon, so the five different fields of society and industry knowledge institutions and universities, but also government, midfield organizations. They are steered by two ministries at the same time, economy and environment. There are six specialized teams and seven cross sectoral leverage teams, as they call them, like jobs and skills to name the most relevant for our discussion today, but also policy and financing.

**C-MART LIFE** program mainly focuses on education. So education, of course with respect to circular economy, to entrepreneurs, so industry, but also in support of high schools, universities that want to change their curriculum to a more circular content. This program helps institutions that develop learning contents and training content for their people/personnel. help institutions wanting to change the course content a bit, to a more circular economy robust way to make it more future proof. They also support them in providing content or giving feedback on how this can be done.

**BOOST CAMPS** is a one week program for 20-400 students. It is 100% student activities with an intensive work of a week. students followed this one week bootcamp, they were allocated

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<sup>8</sup> <https://www.cnme.nl/>

<sup>9</sup> <https://vlaanderen-circulair.be/en>

also credits for more credits from their institution. So counting as an official if you want, scoring in their curriculum.

**CIRCULAR AMBASSADOR** program is their flagship education initiative following boost camps. They stopped doing the camps as it has a very dry impact, which is expensive for them. Because they were only a smaller group of students, we were not sure whether or not they were going to evolve into a circular context. It would be in either economy, technical or whatever finality. So they created a circular ambassador program, where the difference is on two things. First, they do not only teach the second knowledge of circular economy, it's required, it remains important. But they have seen that a lot of people following courses on circular economy are not able to change something within an organisation because they lack some skills on impactful getting people to work, getting people to start taking initiative, and using the knowledge to change an organisation's direction.

### **N5 - Build Up Skills NL<sup>10</sup>**

BUS-NL is started as a project in 2011 to do a research to see who is involved in the construction sector and in the energy transition in the Netherlands, where the actors that are involved, and to see how they are responding to this need to renovate the sector and to map the skills that are needed. They brought together the experts so they could discuss energy transition. So, basically they are creating upskilling agendas for the sectors involved. They are, with a 10 years additional funding, more into digital specialisms and innovations.

They are leading among other European organization constituting a consortium in order to deliver a new roadmap to tackle new issues in the coming years to accelerate the transition. In this consortium, they are the leader in creating learning content.

### **A1 - Klimaschulen Müll trennen<sup>11</sup> & A2 - Zukunftsraum Thayaland, Energy & Mobility<sup>12</sup> & A3 - Klimaschulen: Zukunftsraum Thayaland<sup>13</sup>**

The "Climate Schools" program aims to raise the awareness of schoolchildren, teachers and directors for the sustainable discussion of climate-related topics as intensively and in particular as long-term as possible by implementing so-called climate school projects. This should make a significant contribution to long-term behavioral change and the integration of climate issues into everyday school life. Exemplary school projects worthy of imitation should be initiated and carried out, which will be disseminated as model projects. Particular

<sup>10</sup> <https://buildupskillsnederland.nl/english/>

<sup>11</sup> [https://www.klimafonds.gv.at/klimaschulen\\_projekt/muell-trennen-aber-lieber-noch-vermeiden](https://www.klimafonds.gv.at/klimaschulen_projekt/muell-trennen-aber-lieber-noch-vermeiden)

<sup>12</sup> [https://www.klimafonds.gv.at/klimaschulen\\_projekt/zukunftsraum-thayaland-3/](https://www.klimafonds.gv.at/klimaschulen_projekt/zukunftsraum-thayaland-3/)

<sup>13</sup> [https://www.klimafonds.gv.at/klimaschulen\\_projekt/zukunftsraum-thayaland-2/](https://www.klimafonds.gv.at/klimaschulen_projekt/zukunftsraum-thayaland-2/)

attention should be paid to adapting routines throughout school operations to adapt the design of the lessons and to build up specific knowledge .

A climate school project is based on close cooperation between a KEM or KLAR and at least three schools . Each climate school project works on one or two main topics from the climate and energy sector in accordance with the objectives of the model region. An essential criterion for climate school projects is that the current survey of energy consumption/mobility or the climatic situation of the school is collected together with the students. Pupils should act as energy detectives with the support of the model region manager and show potential for action from the status quo situation and derive concrete measures.

#### **A4 - Making a change<sup>14</sup>**

"makingAchange" is a cooperation project between science and schools. The CCCA - Climate Change Centre Austria, together with the Federal Ministry of Education, Science and Research, invites all secondary schools to participate in the project on "Climate Change and Sustainability" in Austria.

The aim is to contribute to the transformation of society and to integrate and perceive the topics of climate protection and sustainability as a matter of course, both in the school environment and in everyday life. The pupils participating in the project are called upon to deal with the topic independently and to find solutions not only within the school but also in everyday life. Experts or, in the course of time, the pupils themselves, who have been trained as peers, provide help with questions about the topic.

#### **A5 - Young Science<sup>15</sup>**

"Young Science" is a platform to promote the cooperation between schools and academia, led by the Austrian Agency for Education and Internationalisation (OeAD). The aim of "Young Science" is to foster knowledge exchange and cooperation between academic institutions and schools through a variety of offers and activities: school visits by voluntary academics to share their scientific expertise and experience, possibilities for school pupils to attend university courses, certification of science partner schools, citizen science projects at schools, internships, school competitions, awards and school funding.

#### **A6 - Global Action Schools<sup>16</sup>**

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<sup>14</sup> <https://ccca.ac.at/klima-schule>

<sup>15</sup> <https://youngscience.at/de>

<sup>16</sup> <https://www.suedwind.at/niederoesterreich/angebote/global-action-schools/>

Global Action Schools is a school and community network in the province of Lower Austria with more than 70 schools engaged as Global Action Schools. The network is managed by the organisation Südwind (development policy association) and was awarded as an Austrian UN Decade Project in 2007 and 2010 for its contribution to pioneering sustainable educational work. "Global Action Schools" is a school and community network, initiated in 2006, which supports and awards schools for promoting Sustainable Development Goals in their educational work. The project team offers supervision to design example lesson plans, to weave the topics into existing activities and to keep the administrative effort for teachers practical and low, providing very individual opportunities and support for the teachers involved. Additionally, the schools are supported in their press and public relations work.

## **D2.3. 2.2. Analysis on initiation - (collaborations RQ#2) □**

### **R1 - The YouthBank Sibiu Programme / Community Foundation in Sibiu**

**YouthBank** is a programme dedicated to young high school students from Sibiu, through which they establish and manage a fund intended to finance and implement projects born from the passions of high school students in the city. Through this programme, a new generation of leaders for the private and public sector is being uplifted. Results achieved:

- 30 projects of highschool teams
- 360 YB members and 550 volunteers = all highschool age
- 16500 beneficiaries
- 14 out of the 15 highschools in Sibiu were involved

In Sibiu, it is funded by the **Community Foundation in Sibiu**, Romania Central Region (Transilvania), a larger private NGO financing local development and projects. Usually there is also a contribution from sponsors such as Print ATU, Laura Sib Pharmacies, Escudo IF, Alfa After Market, Sibiu County School Inspectorate, KeepCalling.com and Venturelli Prod. Yearly there are also small contributions from citizens - eg. in the 2015-2016 edition YouthBank was supported by approximately 700 individual donors. These donors have been motivated during public events, organized by The YouthBank team, some that gathered an audience of up to 400 people.

A series of other funding programmes or projects funded by this Foundation are:

- **Green Sibiu**<sup>17</sup>, a communication platform of the local community that aims to gather in one place all the relevant information regarding the selective collection of waste in Sibiu.
- **Știintescu**<sup>18</sup> the Foundation also supports science education for young people 6 to 19 yo, including robotics - over 1800 children have taken part in 15 projects since 2015.
- **The Urban Leadership Academy**<sup>19</sup> - For people 21-32 years old, living mostly in Sibiu, who want a successful career in entrepreneurship, freelancing, education, public administration, the corporate environment, NGOs, public institutions, research or any other competitive field.
- **CitySense** is a funding program that supports the creation of prototype solutions that, through the use of technology, contribute to increasing the quality of life in Sibiu (air quality and the environment, the level of traffic congestion, the use of bicycle lanes or parking lots, the quality of water drinking water, civic involvement and the use of public space, the area of green spaces, etc.).
- **The Innovation Labs Sibiu**
- **The International Marathon in Sibiu**
- **Neighborhood Days: Days of Knowledge** (August-November) - One by one, we tried to get to know each other better, to understand how the neighborhood works using: questionnaires, interviews, meetings and a hackathon / **Days of Involvement** (27-29.09) - autumn cleaning around the block and in public spaces in the neighborhood, guided tours / **Days of Celebration** (04-06.10) - After a weekend of work, we turned Gladiolus Street into a celebration and storytelling area, with activities for all ages and tastes. We had an urban picnic area with food and good cheer

YouthBank is an initiative that has other counterparts at national level, such as one supported The Foundation for Youth Involvement in Cluj Napoca<sup>20</sup>.

## R2 - The URBAN-UP! Tu-Act Project / De-a Arhitectura Association

This project was funded by Bucharest Municipality through **ARCUB** – the Cultural Center of the City of Bucharest, in partnership with The Institute Foundation, DC Communication SRL, the Bucharest Territorial Branch of the Romanian Order of Architects, Nod Makerspace, Zeppelin, Attila Kim Architects and Insula 42 - mixing a professional national organization,

<sup>17</sup> <http://www.sibiulverde.ro>

<sup>18</sup> <https://fundatiacomunitarasibiu.ro/ce-facem/fondul-stiintescu>

<sup>19</sup> <https://fundatiacomunitarasibiu.ro/alu/>

<sup>20</sup> <https://www.facebook.com/Implicarea.Tinerilor>

NGOs, private companies, private educational and/or publishing entities and citizen initiatives - all supporting the programme of the local administration's cultural funding agency.

The "**Bucharest RE:imaginat**"<sup>21</sup> programme (the ARCUB November 2021 session) was a call for ideas for cultural projects adapted to the needs and current context of Bucharest - it funded 10 projects that were implemented in 2022 - scholarships of ideas for cultural projects aimed to develop a portfolio of transformative ideas for the city and community.

Open exclusively to individuals or groups of people involved in the creative life of Bucharest, the programme sought the coagulation of some project ideas that would increase access to public spaces and their attractiveness for the citizens of the city, that would bring them together and contribute to the consolidation of community identity and neighborhood.

The ideas selected following the call cover all Bucharest neighborhoods and propose a series of performances and artistic interventions in the public space, urban regeneration projects, community projects with an educational, social and integration aspect, interdisciplinary and visual and performing arts events.

Project Overview: A project of De-a Arhitectura Association, with and about teenagers, TU\_act [Teens Urban Acupuncture] took place between November and December 2022 and invited teenagers to create an urban acupuncture intervention by transforming an unattractive area of the city, which they frequently pass through, into a space where they could spend their free time with friends.

The teenagers - students from 9 different high schools from Bucharest - who signed up for the programme were prepared for the ideas competition in a series of hackathons/workshops, receiving support from professionals - architects, urbanists, UAUIM teachers, sociologists, inclusiveness specialized designers<sup>22</sup> - and mentoring students from the "Urban Up Fellowship" project, carried out by the De a Arhitectura Association during 2022. The three days of the hackathon were hosted by UAUIM - The "Ion Mincu" University of Architecture and Urbanism.<sup>23</sup>

De-a Arhitectura working group was set up in 2011, when the six founding members gathered together to write the "De-a arhitectura [Playing architecture] in my city" course. The working group operated until January 2013 as part of the cultural project of the Romanian Chamber of Architects – Bucharest Branch. During this period, the group managed to test

<sup>21</sup> <https://arcub.ro/se-lanseaza-programul-bucuresti-reimaginat-burse-de-idei-pentru-proiecte-culturale/>

<sup>22</sup> presentations and inspiration from speakers: Cristina Dumitrescu - about UrbanUp&UrbanUp Fellowship / Vera Marin - Design Thinking & MSCBC / Maria Găvozdea - Happy city / Justin Baroncea - (smart) Design / Iris Popescu & Paul - Inclusive city / Maria Duda - Micro interventions in the public space / Irina Zamfir - The experience of Bucharest as a new comer

<sup>23</sup> [https://www.de-a-arhitectura.ro/urban-up-mediu-construit-pentru-liceeni/urban-up-tu\\_act-teens-urban-acupuncture/](https://www.de-a-arhitectura.ro/urban-up-mediu-construit-pentru-liceeni/urban-up-tu_act-teens-urban-acupuncture/)

this new study subject in seven schools from Bucharest, with the help of eight volunteer architects.

“De-a Arhitectura” Association is a Romanian cultural organization of architects and teachers that develops and promotes architecture and built environment education for children and young people, in order to raise the awareness and provide knowledge about the values of architecture, design and urban planning. Its educational programs take place in schools, museums and at architecture and design events.

The Romanian Order of Architects finances a part of the association’s programs through the “Architectural Stamp Duty”. For 2012-2021, 30 100 children (6-18 years old) from state schools were involved in activities.

For each school year more than 4000 children, + 170 volunteer architects and + 150 teachers take part in these activities.

TU\_act [Teens Urban Acupuncture] used a design thinking tool, developed by De-a Arhitectura within the educational programme "My School Can Be Cool", in which the students, guided by an architect, have the opportunity to discover and develop a way of thinking and approaching architect and designer specific issues (design thinking) by making proposals to improve or reimagine their school, being thus engaged in an active learning process in which they use their practical sense and creativity.

### **R3 - Respect for Resources Manual Review / Sustainable Cluj Association**

A different type of sustainability education manual, “Respect for Resources” is the result of a 2021 funded project through the national Raiffeisen Bank Communities Programme<sup>24</sup>, a CSR - Corporate Social Responsibility - funding programme provided by the Romanian branch of the Austrian bank.

Through this yearly CSR programme, registrations for non-refundable grants can be made by NGOs and public educational institutions, for non-formal education projects: financial education, entrepreneurial education, civic education and professional education.

The Manual, as well as the promotion in schools and the training of the teachers into using it in nature science classes are all being coordinated by a young but growing ecosystem of volunteers and professionals (including architects and PhD holders), headed by two NGOs - SUSTAINABLE CLUJ and The Food Waste Combat Campaign / Eat, Save, Repeat. There is

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<sup>24</sup> <https://granturi.raiffeisencomunitati.ro>



a whole collective - people from the NGOs and volunteers contributing to the manual, each bringing in experience in different areas, such as food waste and education in schools.

While the team is not directly involved with pupils, the main focus are teachers and teachers training - the goal is working with biology, geography teachers in integrating the Manual in their classes and lessons, in the City of Cluj.

Results - 4000 copies of the Manual published, more than 30 teachers teaching 1500 pupils in 2022; 13 of the teachers have elected it as an optional class through the educational facility that allows such classes to be elected yearly by every school; some did not get approval from school, this they extracted and inserted information from the Manual into their lessons. In the 2nd year of implementation, the number of teachers teaching the manual more than doubled, while most of the teachers from the year before have returned. Also, the manual has been taught by teachers from the Republic of Moldova as one of the co-authors is from this country and has connections there.

There is a possibility of integrating the Manual into a future national curricula, via support from the Ministry of Education of Romania, as steps have been made, but a more realistic option is that the Manual and its interactive lessons could be taught during the Green Week.

Takeouts from the authors:

*„Respect for resources is the basis of all our healthy choices - for us and for the planet. For those of now, but also for our children.” (Cami Gui)*

*„Our desire is to plant seeds for tomorrow's future, because we still believe that we have a future that we need to take care of and that the quality of the life we live is important, but only if we make an ally and a good friend in Nature.” (Camelia Moldovan)*

## **R4 - The Education for Sustainable Development discipline / Romanian curricula**

In Romania, there is a curricula for the Education for Sustainable Development Discipline, that actually has a transdisciplinary character, being situated, by field and issue, at an area of intersection of Social Education disciplines and Geography included in the Human and Society curriculum area, with the Biology discipline included in the area curricular Mathematics and natural sciences.

The authors of the curricula are from the Ministry of National Education and from the

National Center for Policies and Evaluation in Education, Research Unit in Education<sup>25</sup>. They emphasize the use of educational projects; the products of these projects can be: a website; a video material, a video game or an online game; a memorandum to the authorities; posters, poster exhibition; articles, a publication; a contest like Who knows, wins; a theatre performance/ theatre forum, etc.

## **R5 - Green Schools - Greeninitiative Association**

This initiative, a good practice case study type, aims to focus the efforts of civil society in the field of environment protection to support middle school teachers who want to introduce eco education in the curriculum at the decision of the schools, thus resulting in the optional course "Eco education for Green Schools".

The team involved various types of stakeholders that would collaborate with schools for non-formal education activities included in the educational program: 14 teachers as authors, 200 teachers (local partners and network members) who tested the first iteration, 3 partner NGOs (on the initial project) + 1 Cultural Institute (British Council) for the English edition, 2 university professors as consultants on Ecology and Educational Sciences and top experts, practitioners in the respective fields: forestry engineers, nutrition experts, organic cosmetics experts, scientific researchers, biologists etc. The World Wild Fund<sup>26</sup>, the Romanian branch<sup>27</sup>, was one of the larger partners that were involved.

In order to develop an experiential environmental education formula for the secondary school cycle by creating an educational kit consisting of: a) digital manuals for the optional course Eco education for green schools for the 5th, 6th and 7th grades and the teacher's guide (digital material) and b) a collection of non-formal activities on environmental topic, they produced 3 auxiliary teaching materials: a Student's Manual, a Teacher's Guide and a Green Book (manual).

These materials, in two teaching languages, Romanian & English, were tested in different counties/regions in Romania.

The project aimed for an institutionalization of the environmental education formula: at least 30 schools from 6 counties to obtain the approval of the county inspectorates for the inclusion in the school year 2015-2016 in the curriculum at the decision of the school of the optional environmental course Eco education for Green Schools realized in the project.

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<sup>25</sup> <https://www.ise.ro/echipa-uce>

<sup>26</sup> [https://wwf.panda.org/discover/about\\_wwf/](https://wwf.panda.org/discover/about_wwf/)

<sup>27</sup> <https://wwf.ro/>

Greeninitiative's mission is to promote a new way of life and a new economy for which environmental considerations are a priority. They follow three lines of action: eco education for children and young people, promoting a way of life and building more friendly to nature and sustainable development of rural communities in Romania.

A large part of Greeninitiative's efforts focused on eco-education projects in collaboration with schools, high schools and universities, to prepare a new generation for whom the environment is no longer an obstacle to development but a challenge to find smarter solutions and friendlier for people and nature.

Previous important educational projects apart from Green Schools are

- The Eco Design and Green Leadership Workshop<sup>28</sup> (eg. Eco Leadership at Iorga High School)
- "Green Mogo" Energy Training and Counseling Center<sup>29</sup>
- Terra is our only home (climate change education in partnership with ISMB and the UN House, with the involvement of 15 schools, 100 teachers and 4500 students),
- A green day at Mogoșoaia - non-formal education using a green building (Greeninitiative headquarters) as a teaching tool,
- Be green, be selective with waste - Selective Waste Recovery
- Generation of clean energy,
- Changing with the Climate (European network of excellence Comenius education on the topic of climate change).

## N1 - Leren voor Morgen

They do approach knowledge institutions as well as they get approached by governmental and knowledge institutions. but mostly they act like a hub or a platform for people who seek knowledge and people who have the knowledge.

\* It is a region-wide collaboration between six or seven or eight different educational institutions, and a variety of other stakeholders, including several businesses, but also local governments. And so it is a very, it's a multi stakeholder, it's a network basically.

\* their program tailors, mostly to students, so universities, universities of applied sciences, but that is an extracurricular program that students can sign up for. And it's great, and they choose to do it, and it works very well.

## N2 - CNME De Rollen

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<sup>28</sup> <https://www.greeninitiative.ro/proiect~55~atelierul-de-eco-design-si-leadership-verde>

<sup>29</sup> <https://www.greeninitiative.ro/proiect~49~centrul-de-instruire-si-consiliere-energetica>

They are in close connection with the municipality and local businesses. They do have an active project coming from the municipality as they also have the funding from them. They do collaborate with schools and give their consultation in order to make schools more green and do give guest lectures on calls from schools.

### **N3 - CNME Maastricht**

They get tasks from the local government also the funding mostly related to tasks of consultation and in regard to future plans of the municipality but mostly on education, sustainability and nature.

Schools can come for consultation for becoming an eco-school.

### **N4 - Circular Flanders**

They are active mostly in upper secondary education more towards the students that are a bit closer to the market, high schools and university and vocational school regarding the formal education. They do collaborate with universities as well.

They have a large network mostly consisting of knowledge institutions, academics, universities, government, industry and business, also private partners, local and civil society and they are reached by social media and regular newsletters.

Schools are also approached to them with an inquiry such as having in a project initiative for their students on the topic of circularity.

Starting from the understanding of the concept of sustainable development, defined as "*a new way of development that will sustain human progress for the entire planet and for a long time to come*" This curricular offer is in line with the Sustainable Development Goals (SDGs) and, respectively, with the targets corresponding to these objectives, included in the Agenda 2030 document for sustainable development, adopted by the UN General Assembly on 25 September 2015.

### **N5 - Build Up Skills NL**

They adopt frameworks produced by universities and research institutions in the NL mostly applied universities and adapt them as general principles, encourage participants (vocational school students) to think about those principles Students are also asked to think about those from from their expertise, such as construction, economy etc. and create a discussion.

- for creating training materials, they have developed a methodology to find out what technologies or specialisms that are needed in order to sustain the build environment because what they see is that the transition is quite technology and innovation driven. What they do is that they spot those innovations and based on the technical innovation system maturity analysis they adopted from existing frameworks, they assess the maturity of those innovations within the boundary of the innovation system they are in.

Even though vocational schools are not their primary focus, they are working with different vocational education schools and also applied sciences and also universities, but not in the sense that they are dictating them what to do. They are co-learning together.

## **A1 - Klimaschulen Müll trennen**

KLIMASCHULEN: Each "Klimaschulen" project deals with one or two main topics from the climate and energy sector in coordination with the objectives of the model region.

An essential criterion for climate school projects is that the current energy consumption/mobility or climate situation of the school is surveyed together with the pupils. Pupils should act as energy detectives with the support of the model region manager and identify potential for action from the status-quo situation and derive concrete measures.

Pupils - 6-14 years old - recognise different types of packaging and learn about options to avoid packaging when shopping.

## **A2 - Zukunftsraum Thayaland, Energy & Mobility**

KLIMASCHULEN: Each "Klimaschulen" ("Climate Schools") project deals with one or two main topics from the climate and energy sector in coordination with the objectives of the model region.

An essential criterion for climate school projects is that the current energy consumption/mobility or climate situation of the school is surveyed together with the pupils. Pupils should act as energy detectives with the support of the model region manager and identify potential for action from the status-quo situation and derive concrete measures.

Pupils - 6-19 years - investigate the energy needs of the school and measure the electricity demand of individual devices, among other things, using simple measuring devices. Teachers benefit from the support of professional experts.

## **A3 - Klimaschulen: Zukunftsraum Thayaland**

KLIMASCHULEN: Each "Klimaschulen" project deals with one or two main topics from the climate and energy sector in coordination with the objectives of the model region.

An essential criterion for climate school projects is that the current energy consumption/mobility or climate situation of the school is surveyed together with the pupils. Pupils should act as energy detectives with the support of the model region manager and identify potential for action from the status-quo situation and derive concrete measures.

The pupils - 11-19 years - are introduced to their self-efficacy through everyday activities and are supported in developing a health-conscious lifestyle that is responsible towards the environment and the world around them.

Collaborating partner - Experts, SÜDWIND, Municipality

#### **A4 - Making a change**

"MakingAchange" is a cooperation project between science and schools. The CCCA - Climate Change Centre Austria, together with the Federal Ministry of Education, Science and Research, invites all secondary schools to participate in the project on "Climate Change and Sustainability" in Austria.

The aim is to contribute to the transformation of society and to integrate and perceive the topics of climate protection and sustainability as a matter of course, both in the school environment and in everyday life. The pupils - Second grade students - participating in the project are called upon to deal with the topic independently and to find solutions not only within the school but also in everyday life. Experts or, in the course of time, the pupils themselves, who have been trained as peers, provide help with questions about the topic.

Partners involved - university students as lecturers and experts from respective fields

#### **A5 - Young Science**

"Young Science" is a platform to promote the cooperation between schools and academia, led by the Austrian Agency for Education and Internationalisation (OeAD).

The aim of "Young Science" is to foster knowledge exchange and cooperation between academic institutions and schools through a variety of offers and activities: school visits by voluntary academics to share their scientific expertise and experience, possibilities for school pupils to attend university courses, certification of science partner schools, citizen science projects at schools, internships, school competitions, awards and school funding.

Possibly more suitable for high school students - collaborating partner - schools, universities and academics, educational initiatives.

## **A6 - Global Action Schools**

Organisation - Global Action Schools is a school and community network in the province of Lower Austria with more than 70 schools engaged as Global Action Schools. The network is managed by the organization Südwind (development policy association) and was awarded as an Austrian UN Decade Project in 2007 and 2010 for its contribution to pioneering sustainable educational work.

The Project "Global Action Schools" is a school and community network, initiated in 2006, which supports and awards schools for promoting Sustainable Development Goals in their educational work. The project team offers supervision to design example lesson plans, to weave the topics into existing activities and to keep the administrative effort for teachers practical and low, providing very individual opportunities and support for the teachers involved. Additionally, the schools are supported in their press and public relations work.

The project involves pupils from ground school to high school students. The network is member of the UMWELT.WISSEN NETZWERK and cooperates with schools and pedagogical universities.

## **D2.3. 2.3. Analysis on HOW - criteria Methods and Resources - (methods RQ#3)**

### **R1 - The YouthBank Sibiu Programme / Community Foundation in Sibiu**

The program offers an engaging competition aimed at fostering the entrepreneurial spirit and community engagement of highschool pupils. It encompasses a comprehensive series of activities, starting with introductory training and progressing to specialized sessions on fundraising, complemented by ongoing mentoring throughout the year. The program's core process involved high school teams brainstorming on innovative projects and crafting grant applications. Once selected for funding, these teams received support from the YouthBank (YB) team to effectively implement their projects. Throughout the implementation phase, the YB team monitored the progress of the high school teams, ensuring the successful realization of their initiatives. The program also encouraged team-building activities to foster collaboration and create a supportive environment for the young participants.

## **R2 - The URBAN-UP! Tu-Act Project / De-a Arhitectura Association**

The program fosters critical thinking, design thinking, and practical skills in highschool students through an engaging informal education program. It connects schools, universities, NGOs, and other institutions to create a comprehensive learning experience. Mentors of the Tu-Act team are undergoing training sessions and submitting applications to guide and coordinate the program effectively. High school participants, on the other hand, engage in a thrilling competition where they present proposals and have the opportunity for their ideas to be implemented. So far, the project brought together teens from various highschools in Bucharest, forming five teams that creatively identified and harnessed the potential of urban spaces around their homes or schools. To be part of the project, teens filled out an entry form expressing their ideas, thoughts on urban space, teen inclusion, personal experiences, and previous involvement in similar extracurricular activities. The program commenced with an introductory training session, followed by mentoring sessions held over the weekend and throughout the following week.

## **R3 - Respect for Resources Manual Review / Sustainable Cluj Association**

The manual offers a comprehensive approach to fostering environmental consciousness among 5th-to-12th grade students. It incorporates interactive and playful methods that encourage systemic thinking and experiential learning, while incorporating elements of non-formal education and environmental exploration. Following a structured format aligned with the school year, the manual comprises 7 chapters, encompassing 28 lessons in total. In addition to three in-between chapter evaluations, there are three final evaluations that include practical assignments, debates, collages, and other creative activities. The curriculum places a strong emphasis on synthesis-oriented learning and design thinking, promoting teamwork exercises such as experience elements, debates, role-playing, and simulations. Furthermore, the manual encourages interdisciplinary knowledge, providing optional opportunities for in-depth study. To stimulate critical thinking, the curriculum includes questions and exercises, along with case studies and knowledge short summaries. Students are also given the option to explore further literature on the subject. As a final touch, challenge homework or group projects are assigned to foster engagement and active participation.

## **R4 - The Education for Sustainable Development discipline / Romanian curricula**



The discipline offers a structured approach to fostering students' competences through organized learning contents across various domains. It provides methodological suggestions that guide teachers in utilizing the program effectively, taking into account the specific nature of the discipline and the age characteristics of the students. The emphasis is placed on project-based learning, where students engage in hands-on activities to deepen their understanding. To design the didactic approach for a learning unit, teachers begin with personalized reading of the school curriculum. Suggested projects involve students creating posters, articles, publications, a website, or a short film that presents the 17 Sustainable Development Goals (SDGs). Additionally, discussions are encouraged, both in small groups and at the class level, centered around the principle of "thinking globally, acting locally." Class-level debates are conducted to explore the various roles individuals must assume as "citizens of the world." Through these methods, students develop a holistic understanding of sustainability and their role in promoting it.

## **R5 - Green Schools**

Green Schools is an optional course that spans the entire school year, providing students with a unique opportunity for applied and experiential learning. The curriculum is enriched by a range of auxiliary teaching materials, including a student's manual, teacher's guide, and a green book, which serve as valuable resources. A distinctive feature of the course is the active involvement of students in real-world applications and decision-making processes, allowing them to directly contribute to the learning experience. Moreover, students are actively engaged in the stakeholder engagement process, fostering communication with the organizers, local partners, and network members. The teaching materials have been meticulously developed by multi-disciplinary teams of experts, comprising teachers, non-governmental organizations, and practitioners from relevant fields, ensuring a comprehensive and diverse approach to environmental education. By participating in Green Schools, students are empowered to become active agents of change, equipped with the knowledge and skills necessary to make a positive impact on their environment and society.

## **R6 - My School Can Be Cool/De-a arhitectura**

The program adopts a design thinking process and project-based learning, emphasizing the importance of the iterative and non-linear process over the final outcome. It fosters a participatory approach, where pupils, teachers, and architects collaborate on a shared diagnosis and design, ensuring that everyone's perceptions, needs, and ideas related to the school and its surroundings are expressed. The decision-making process is transparent,

involving all stakeholders. Through cooperative investigation, pupils culminate their efforts by presenting their products to a wider audience. The program takes an interdisciplinary approach, integrating knowledge and competencies gained in other classes. Experiential learning is promoted through various applied and creative techniques, such as exploring physical spaces, photography, role play, drawings, mapping, presenting, designing, and building. The process begins with setting objectives for intervention, followed by developing a project idea. Pupils then pitch their idea for small grants, providing a comprehensive description of their reasoning, the learning process they have undergone, and the resources they require. Finally, the chosen idea is implemented on the school premises, transforming it into a vibrant and engaging learning environment.

*“By detailing the process, the idea is to understand the reasoning behind what they reach in the end + their own awareness of the learning process [...] They are responsible for their learning as well; to learn how to learn; to realize their evolution; to know how to work in a team; to know how to decide on how resources will be allocated [...] In the end, they better understand what they learnt, they sustain better their idea & pinpoint on what decisions they took along the way to get there” (Viorica Popescu, educational expert MySchoolCanBeCool)*

## **N1 - Leren voor Morgen**

Their approach is based on challenge based and peer to peer learning. They use whole school approach as well.

## **N2 - CNME De Rollen**

They approach learning locally and dramatically. They show children the real world problems and have them experiencing different roles in solving a specific problem. They organize nature walks where children experience nature and learn in action. This gives children an experience that they enjoy and interact with different species. Their office is a building that is designed based on the problem of flooding. so they use their own building as an example of a solution to technology.

## **N3 - CNME Maastricht**

When there is an event or project happening by the foundation it is promoted in the local news or newspapers and regular citizens can apply and be part of it. That's the process of how and with whom in regard to civil society.

- it is about extending children's views.

-nature walks on demand by schools: you're walking along and discussing nature, the issues and topics related to nature. it is applicable with younger children as well as they plant cards/tasks and do the easy tasks together with parents and teacher in nature. The main aim is to make them aware that nature is enjoyable. So if you enjoy you're likely to protect it.

-project-based learning such as model making: giving a problem a prompt and you want them to research and design. This is learning by doing.

-they focus on skills learning through the whole school approach. They care about collaboration at an institutional level.

-learning by doing is something connected to project based learning yet they encourage students to use their hands like model making.

#### **N4 - Circular Flanders<sup>30</sup>**

Circular Flanders focuses on teaching the skills necessary to drive significant impact, such as storytelling and change management, in order to inspire individuals to work towards a sustainable future through a circular approach. Their goal is to create a multiplication effect, where the knowledge and actions of a few can influence and motivate others. In their efforts to create participatory environments, they have partnered with educational institutions, including an economy high school. In this collaboration, they organized a challenge for students to enhance the sustainability of their school campus. Over the course of one week, 140 students worked intensively in groups, generating innovative ideas and solutions. During the final pitch event, school management was present as the audience, listening to the students' presentations and voting on the ideas. The selected projects were then presented to the school management, who recognized and acknowledged their value. This participatory process not only empowered the students but also fostered a sense of ownership and commitment towards creating a more sustainable school environment.

#### **N5 - Build Up Skills NL<sup>31</sup>**

Build Up Skills NL employs a systematic approach to create their materials. First, they identify a cluster of specialists. Then, they conduct in-depth interviews with early adopters and innovators who have already mastered the necessary skills. These interviews inform the development of an overview of the new skill set, including an understanding of the level of proficiency required for each skill. The next step involves creating task-based units of learning outcomes that provide detailed descriptions of the required competencies. While

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<sup>30</sup> <https://vlaanderen-circulair.be/en>

<sup>31</sup> <https://buildupskillsnederland.nl/english/>

they do not directly address formal education, as vocational education has its own regulations and qualifications, they collaborate by sharing their results to enhance the work conducted by vocational education institutions. Build Up Skills NL adapts key elements of circularity frameworks from various sources, including Dutch universities, to suit the context of the construction value chain. They go beyond theory by incorporating practice-based e-learning approaches in their training, ensuring practical application of knowledge. For example, they conducted an experiment to develop an applied version of a framework related to multifunctional green roofs. To deliver fundamental skills, they create e-learning materials using different approaches. These include traditional self-paced e-learning with reading materials, chunk-based video-supported e-learning, and action-based e-learning where students are assigned tasks based on their acquired knowledge and report their actions.

### **A1 - Klimaschulen Müll trennen**

An essential criterion for climate school projects is that the current energy consumption/mobility or climate situation of the school is surveyed together with the pupils. Pupils should act as energy detectives with the support of the model region manager and identify potential for action from the status-quo situation and derive concrete measures.

Pupils recognise different types of packaging and learn about options to avoid packaging when shopping.

One day excursion, 2 Sessions before and after preparation

Excursion, playful games and posterwork

Children learn by playing and seeing processes by first hand

### **A2 - Zukunftsraum Thailand, Energy & Mobility**

Pupils investigate the energy needs of the school and measure the electricity demand of individual devices, among other things, using simple measuring devices

Surveys, Questionnaires, Workshops, Energy measurement, tinkering (Photovoltaik)

(Energy-measurement) apps, Energy measuring device

### **A3 - Klimaschulen: Zukunftsraum Thailand**

An essential criterion for climate school projects is that the current energy consumption/mobility or climate situation of the school is surveyed together with the pupils. Pupils should act as energy detectives with the support of the model region manager and identify potential for action from the status-quo situation and derive concrete measures.

The pupils are introduced to their self-efficacy through everyday activities and are supported in developing a health-conscious lifestyle that is responsible towards the environment and the world around them

Surveys, Workshops, Movies, Excursion, Building a vegetable garden

Working as community, cooperation with experts, feedback talks after every workshop

## **A5 - Young Science**

Young Science offers a range of opportunities and support to promote scientific engagement among students. Through exchange events, workshops, school visits, certification, citizen science initiatives, projects, and competitions, it creates an environment for active participation. Teachers receive support through workshops, excursions, and school visits by academics, as well as access to teaching materials in various media formats. For students, Young Science provides topics and a buddy program for the "VWA" (pre-scientific paper), which is a graduation requirement for second-grade pupils. Teachers have the flexibility to choose workshop topics and school visits to align with their curriculum. Additionally, the Young Science team assists teachers in preparatory lessons for school theses through webinars. These online workshops provide valuable guidance to young individuals in searching for topics on the Young Science platform, ensuring they have the necessary resources and input to excel in their scientific pursuits.

## **A4 - Making a change**

The programme is driven by self-developed projects initiated by students and supported by experts and peers. Teachers are granted exemptions from regular lessons to dedicate time to prepare and facilitate these initiatives. The implementation of the project occurs alongside regular school lessons, integrating it into the existing curriculum. As part of the project, a survey was conducted to assess educational measures related to climate change in Austria's secondary school sector. The survey aimed to identify organizations, institutions, and associations in Austria that already offer climate change education. Furthermore, it sought to determine if there are training or further education opportunities available for educators in this field. The survey results provide valuable insights for shaping and enhancing climate change education initiatives within the educational landscape of Austria.

## **A6 - Global Action Schools**

Global Action Schools offers a comprehensive approach to empower schools in taking global action. They provide support through school evaluation, assisting in the development of school action plans, and offering supervision and support for teachers. Expert guidance is provided for projects, along with a teaching toolkit to facilitate effective implementation. Teachers receive individual supervision and guidance, and they have access to teacher training at pedagogical universities, ensuring continuous professional development. Students benefit from a magazine subscription and age-appropriate teaching materials that enhance their understanding of global issues. The program is designed to integrate seamlessly into specific subjects and curricula, enabling students to explore global topics within the context of their regular studies. With these resources and integration, Global Action Schools empowers both teachers and students to become active global citizens and make a positive impact on the world.

## **D2.3. 3. Lessons learned for CCC project from the examples**

We could see that, in Romania, there are activities throughout the school year regarding sustainable development, environment and climate change, but conducted by independent organizations (NGOs mostly) that develop projects and educational projects and implement them inside and out of high schools. This is the in between formal and informal education space for implementation, where you can have the flexibility of non-formal and informal education adapted for formal education. Usually, in Romania, such activities are initiated by NGOs and are addressing teachers (with manuals and training) or directly the children - in partnership with schools (camps, one semester long optional after school activities, etc.).

The same applies in the Netherlands and Austria when it comes about the circularity but the climate awareness is more embedded in the school activities. The organizations taking sustainable education content into the schools are basically reaching their objectives towards the young generation - even though they might not be established for education purposes as such, their mission to raise awareness on the sustainable development issues is manifested in the projects that are implemented in schools with young public.

Special interest was given to understanding the following aspects:

- the content of the teaching materials in connection to circularity in particular (without high expectations), to sustainability in cities (built environment education), and to sustainable development in general - the available curriculum and the support materials were analysed for both children and teachers (any specific guidelines materials)
- the degree of autonomy in projects implemented by students just by following guidelines - materials that are to be used by pupils with a higher level of independence / less involvement from their teachers - especially for highschool age group when the objective is the empowerment of teens,
- involvement of different stakeholders - with special concern to understand the types of partnerships between the schools and various other stakeholders, but also following the ways in which the public education institutions do help in integrating resources coming from other types of stakeholders,
- the method of contest - if represented in the approach for each case-study - since CCC is to formulate the brief for a competition, the analysis was also following evaluation criteria or the impact of competition methods on the pupils' motivation - competition as a tool for encouraging results,
- the training of teachers before and during the implementation of new curricula - in terms of time needed or the TOTs - training of trainers requirements,
- the various ways in which a type of content could be presented in the schools: club / extra-curricular activities, as an optional course along the whole school year, and even outside the schools with non-formal education activities but which are announced in schools.