



Smart Waste Management for Smarter Cluster Schools
2020-1-RO01-KA229-079971



LTTA Bistrița- Romania: Smart Management Strategies for Smart Cluster Community, April 4-8, 2022.

Report of the LTTA

LTTA Bistrita Romania was organized by Liviu Rebreanu National College in April 2022 from 4 to 8. The topic was Smart Management Strategies for Smart Cluster Community. The program was design to cover aspects about Clusters, Sustainable development and designing the future, example of good practices in Bistrita Nasaud County, and examples of using the smart technologies for waste management.

April 4, 2022 – Day 1

Workshop: Cluster Policy-Clusters & their utility in an interconnected, smart global society. Creating Cluster's map. During this activity all partner schools presented the activities carried out in their cluster and stressed the benefits of working in cluster

Collaborative work: Cluster Policy -Increasing cooperation by clustering –. This activity was the perfect opportunity to collaborate for writing the book "To care as a Duty!", which is an important outcome of the project;

April 5, 2022 – Day 2 Case study-Waste incineration& trash pits challenges in Romania. Visiting the Waste Water Treatment Plant Bistrita for experiential learning about Bio-Gaze. At the Waste Water Plant, the manager Mr Gorea presented us the circuit which wastewater follows in their facility until the discharge into Bistrita River. In addition, he presented us how the residue from their plant are used, reintroduced into economical circuit. They use smudge to generate electricity and thermic energy.

The second activity was an example of good practice of a local entrepreneur who use waste to produce compost. We carried out discussions, during the Round table: Participative citizenship for a smart learning community—from trash to recyclables.



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The last activity from day 2 was the case of Bistrita -sharing good practice of waste management in community & schools. A manager from city Hall presented and carried out a discussion about used oil and how this oil can be raw material for candles. In addition, he presented the City hall strategy to involve students in the process of collecting this kind of waste and the rewards given to students

April 6, 2022 – Day 3

Running for a clean environment organised at Tășuleasa pedagogical forest (visiting natural heritage of Bargaului Mountains in Bistrita-Năsăud county).

We were guest at Tășuleasa Social, a NGO that has operations at national level, in the field of social inclusion. They are a very good example of entrepreneurs whose decisions (investments) are made respecting the paradigm of sustainable development. One example is Via Transilvanica, the 1000km trail they created in Romania. At Tașuleasa Social we have the opportunity to see how they teach children about the importance of the forest (Pedagogical Forest) and how to behave when taking trips to the mountains (Școala de mers pe munte), In all their actions is very obvious the concern for all 3 spheres of sustainability.

In our way back we visited a small, new mountain resort, Colibița Lake, where we could observe the human intervention on the environment, but not in all situations/cases analysed were good examples of sustainable development.

April 7, 2022 – Day 4

101 Sustainable Development- was a brief foray into sustainability paradigm and sustainable development goals. We watched Johan Rockstrom Ted Conferences from 2010 and 2020 and debate on the topic Earth boundaries, to prepare the next activity: designing the future.

Design thinking methods: Designing the future by Suitable development& grow (applying design thinking methods for creating a map of future possible tools, methods interventions for growing, protecting human health). At this activity, participants were asked to imagine a possible future for their schools, taking into account sustainable development.

How actors involved in the school life should think, act, behave and what results they can obtain.

In the afternoon, we tried to create a strategy that can be applied in our schools, in order to improve the way waste is managed, with the help of a manager of the City Hall.

April 8, 2022 – Day 5



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Debate- E_waste management & using of digital tools & Robots inside or outside of school buildings In the last day of this mobility we presented and talk about digital tools which can be used for waste management. Also, the students from Bolts And Gears Robotic Club presented their work, including a smart trash bin which was created for people with visual impairment. The trash bin is also a valuable tool for weighting the quantities of different types of waste.

We ended the day with award of Certificate of Attendance for all 15 participants to this LTTA. Participants also shared their impression, feeling about the week they spend in Romania, in Bistrița Năsăud County and in Liviu Rebreanu National College using Google form.

Conclusions:

Based on observation and the feedback questionnaire, we can affirm that the participants at this LTTA managed to have an good inside in the field of sustainable development, understand the importance, benefits of cluster, know how to design a strategy and overall understand the future will be exactly how we will design it.