



AGENCY FOR  
MOBILITY AND  
EU PROGRAMMES

Co-funded by the  
Erasmus+ Programme  
of the European Union



# Introducing cultural heritage into the educational process



Digital  
Heritage

<http://digitalheritage360.eu>

EDU



CSEG



**Project Title: Introducing of Digital Heritage in educational process**

**Project Acronym: Digital Heritage EDU**

**Project Total Duration: 24 months**

**Total grant: 123.932,00 EUR**

## **ABOUT PROJECT**

Digital Heritage EDU Project started in May 2021 with a duration of 2 years, and it is co-funded by the EU Programme ERASMUS+. Partnership includes 6 partners: from Bulgaria (2), Croatia (2) and North Macedonia (2).

There is a growing interest nowadays of using immersive technologies to promote Cultural Heritage, to engage and educate visitors, tourists and citizens. Digital heritage (DH) is the use of digital media in the service of preserving cultural or natural heritage. The main aim of digitization of cultural heritage is to enable the permanent access to specific cultural achievements (from three targeted regions in Croatia, Bulgaria and North Macedonia) starting from historical objects, paintings and/or traditional craftsmanship, up to local/regional traditional folklore music and/or dances to any interested person, regardless of his/her location on the world map.

### **Project main objectives are:**

- development of innovative educational approach with introducing of Digital Heritage in education process by using of 360-degrees videos;
- establishing of a teachers network for transnational cooperation by using of eTwinning networking module;
- promotion of advantages of long-term transnational strategic partnership among different type of organization in development of innovative educational methodologies.



### **Project specific objectives are:**

- increased teachers' skills and competences in using of innovative "state of the art" VR technology /360-degrees videos/ in the educational process, with educational approach that will lead to reinforced creativity in education;
- creating of Digital Heritage 360-degrees videos enhanced by animated 3D elements for promotion of cultural heritage in targeted regions in Croatia, Bulgaria and North Macedonia (min 9 - 3 per each country);
- increasing of students interest and overall acknowledgement about importance of Cultural Heritage preservation;
- enhancing students skills development and reinforcing of their creative potential;
- improving of students presentation skills (for the best students from three schools);
- establishing of transnational teacher's network by using of eTwinning networking module;
- creation of a strategic Action plan with developed realistic actions/projects for the future transnational cooperation in the field of education;
- to present in front of the relevant stakeholders on local regional and national level an advantages of new developed "learning by doing" Digital Heritage-based educational method e.g. use of the high level ICT technology in Cultural Heritage preservation.

### **Main target groups, as well as direct beneficiaries, are:**

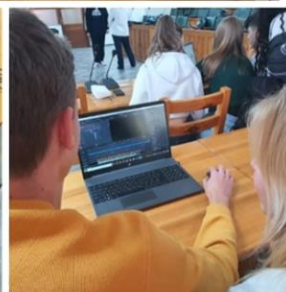
- students on the age of 12 to 14th years old as well as a school teachers that are teaching school subjects related with the History, the Art and Music education from three schools from targeted regions;
- educational institutions that will get a more attractive educational process with highly competent teachers ready to implement new educational approaches, and an overall society that will get an



important preserved data about the cultural heritage from the targeted regions.

### **The long-term results of the project are:**

- creation of min 9 Digital Heritage 360-degrees videos enhanced by 3D elements, with desired quality that can be used in education of the current and future generations of students in project partners schools;
- developed Guidelines for school teachers "How to implement a Digital Heritage in education process by using of 360-degrees videos";
- established teacher's network by using of eTwinning module, as the main pre-request for further partnership and cooperation in increasing of teacher's skills and competences for exchanging of good practices;
- created Strategic Action plan for long-term transnational partnership among different types of organisations in improving of educational process in regions of Veliki Bukovec/Ludbreg, Bratzinovo and Kochani, with aim to stimulate its development by using of best practices and innovative education methods;
- increased attractiveness of the education process and fostering of the students creative potential with implementation of "activity - based" educational approaches;
- Increased awareness on regional, national and international level about the importance of introduction of Cultural Heritage preservation in education process by using of VR education materials and benefits that this technology is offering for more attractive and efficient education process in schools (through dissemination material, social events, project multiplier events, ect.)





## Intellectual Outputs

### ➤ Guidelines for school teachers "How to implement a Digital Heritage in education process by using of 360-degrees videos"

Guidelines with instruction for teachers for using of free online available Digital Heritage 360-degrees videos, as a pedagogical education material for internal use, will be created with aim to be used by trained teachers as well as by any other interested teachers for implementation of this innovative education approach in their school classes.

This Intellectual Output will be consisted from:

- Chapter 1.
  - detail description of minimum necessary hardware equipment
- Chapter 2.
  - researching of the adequate free 360-degrees video materials on internet
- Chapter 3.
  - detailed description of practical utilization of hardware and software by teachers and students





➤ **Digital Heritage 360 degrees videos enhanced by animated 3D elements**

The created 360-degree digital heritage videos enhanced with animated 3D elements effectively show the digital heritage from the three target regions in Croatia, Bulgaria and North Macedonia and provide a unique experience to the viewers of the content and "transport" them to specific locations as if they were visitors.



- **Strategic Action plan for long-term transnational partnership among different types of organisations in improving of educational process in regions of Ludbreg, Bratzinovo and Kochani by using of innovative methods and best practices**

The strategic action plan is a good example for a new approach to establishing a strategic partnership in transnational cooperation between different socio-economic organizations (regional educational authorities, educational institutions /schools/, civil sector /NGO/ and private sector /ICT SME/) with the aim of ensuring the implementation of innovative and good practices in the educational process.

The main aim is to determine new innovative education approaches (for example ICT based ; Open education resources, Augmented reality and Virtual reality based education software etc.) and their implementation in specially created non-formal education activities in project partners schools.





## PROJECT ACTIVITIES:

### TRANSNATIONAL PROJECT PARTNERS MEETINGS

We organized three meetings of project partners

- teamwork of project partners on evaluation of realized project activities, determination and resolution of challenges and preparation of future activities



## LEARNING, TEACHING, TRAINING ACTIVITIES

During the project, learning/teaching and training activities were carried out

- **Short-term joint staff trainings** in Ohrid/Kochani, North Macedonia, in Ludbreg/Veliki Bukovec, Croatia and in Bratzigovo, Bulgaria.
- The 1st training was intended to increase the skills and competencies of school teachers in recognizing the value of cultural heritage



- The 2nd training was intended to increase the skills and competencies of school teachers in the use of VR hardware and software





- The 3rd short-term training was intended to increase the skills and competencies of the best mentor teachers in the process of improving the created 360 degree Digital Heritage videos with the mentoring support of Lucera's experts

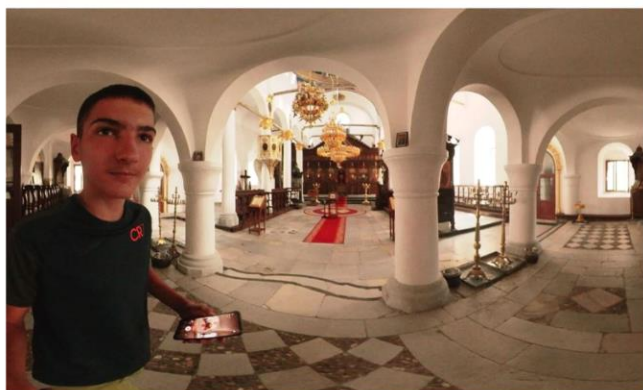






➤ **Long-term teaching assignment**

The aim of these tasks was to create at least 9 Digital Heritage 360-degrees videos on topics of interest to the regions from the aspect of preserving local and regional cultural heritage







➤ **Short-term exchange of groups of pupils**

The main goal of this event is to increase skills and competences as well as a students creative potential in process of enhancing of their created 360-degrees Digital Heritage videos under mentoring support form Lucera's experts.





## **The achieved results of the project are:**

- ✓ 9 teachers mentors (3 per school) with increased theoretical and practical competences to develop and implement own education approach by using of free online available Digital Heritage 360-degrees videos;
- ✓ 9 (nine) new "professionally" created Digital Heritage 360-degrees videos enhanced by animated 3D elements, from the three targeted regions, as educational materials for the school subjects the History, the Art and Music education implemented in educational processes in the project partners schools;
- ✓ Prepared Guidelines for school teachers for using of a free online available Digital Heritage 360-degrees videos and its implementation in the school lessons by trained teachers;
- ✓ Created Action plan for long-term transnational strategic partnership among different types of organizations in improving of educational process in regions of Veliki Bukovec/Ludbreg, Bratzinovo and Kochani, with developed minimum 10 concrete projects/actions/measures by using of best practices and innovative education methods;
- ✓ Established transnational school teachers network (min 39 teachers from three project partners schools) by using of eTwinning module for future cooperation in exchange of good practices;
- ✓ 309 children from three project partners schools with increased awareness for necessity of Cultural Heritage protection, by using of created educational approach in their learning process;
- ✓ 27 students /participants in the transnational students' competitive event in the frame of the main long-term teaching assignment/ with increased skills and creative potential in using of VR technology for creation of Digital Heritage 360-degrees videos;



- ✓ Prepared Project webpage with best practices from project activities and with included (free for downloading) information and created guidelines that will be at disposal for teachers from other schools, as well as for any other interested stakeholders on local, regional, national and world wide leve;
- ✓ Minimum 120 local relevant stakeholders will became familiar with new "activity-based" educational approach in creation of Digital Heritage 360-degrees videos as an attractive and efficient educational approach in line with students needs and expectations..



## MULTIPLIER EVENTS

The main purpose of these events was to present the implemented project activities and achieved results to all interested stakeholders. They are crucial for reaching a wider audience of target stakeholders and for obtaining relevant feedback important for evaluating the achievement of the desired project results.

The following main events are organized to disseminate information:

- National dissemination event in Bratzinovo, Bulgaria
- National Dissemination event in Kochani, North Macedonia
- National dissemination event in Ludbreg, Croatia



**PROJECT PARTNERS:**

Lucera d.o.o., Croatia

Primary school Veliki Bukovec, Croatia

Zdruzenie za poddrshka na ekonomskiot  
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OOU NIKOLA KAREV KOCHANI, The Republic  
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