



## The e-InnoEduCO<sub>2</sub> project

“School Science e-Learning ONE HEALTH”  
 (e-InnoEduCO<sub>2</sub>) is part of the Erasmus+  
 programme under KA226 for the  
 years 2021-2023.



# Innovation in Education on Climate Change



Concello de Outes



ALEXANDRU IOAN CUZA  
 UNIVERSITY of IAȘI



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## WHAT IS THE OBJECTIVE OF e-InnoEduCO<sub>2</sub>?

e-InnoEduCO<sub>2</sub> is a STE(A)M (Science, Technology, Engineering, Arts & Mathematics) project that is aimed at enabling students to develop innovation-related skills and competencies to compensate for barriers and deficiencies resulting from the COVID-19 pandemic.

Through the development and implementation of e-lab and e-eco models linked to augmented reality, the aim is to strengthen the capacity of educational institutions to provide inclusive and quality digital education in science.

## LATEST NEWS:

### THE FIRST TRANSNATIONAL MEETING.

The second transnational meeting of the InnoEduCO<sub>2</sub> project took place in the Agigea Biological Station of the Universitatea Alexandru Ioan Cuza (Romania) on 29 July 2022. It took place in a hybrid format coinciding with the end of the training activity that took place in the Danube Delta.

The partners discussed the progress of the project, the timetable for its development over the coming months and the design of its products.



## INTERNATIONAL VIRTUAL CONGRESS


In May 2022, the International Congress of the InnoEduCO2 Project was convened with the aim of selecting the participants of the International Campus of initiation to scientific communication and research ONE HEALTH.

The congress was attended by more than 400 students from Europe (Spain, Portugal, Poland and Romania), Africa (Morocco) and America (Brazil, Mexico, Panama and Peru), as reflected in the official report of the [Congress](#).

At the conference, participants presented a wide variety of formats such as poems, stories, animated videos, music songs, scientific research, posters, photographs and comics.

The works presented at the conference are available in the Virtual Conference section of the e-InnoEduCO2 Project.



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QUINTO CAMPUS EN FABRICA CENTRO DE CIENCIA VIVA DE AVEIRO

AVEIRO, PORTUGAL, PRIMERA SEMANA DE SEPTIEMBRE (FECHA EXACTA DE INICIO POR CONCRETAR)

CONVOCATORIA Y PRESENTACIÓN DE CANDIDATURAS EN EL PORTAL:

[www.congresovirtual.climantica.org](http://www.congresovirtual.climantica.org)



FÁBRICA CENTRO CIÊNCIA VIVA aveiro



# CLMNTK22

YA SOMOS MÁS RECUPERANDO EL PLANETA



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Uso inapropiado del suelo frente a las amenazas climáticas

← Entradas más antiguas



## Nuestra casa está llena de plástico

Publicado el 29 junio, 2022 por [montseinoquanzo](#) | [1 comentario](#)

la foto invoca lo que está ocurriendo en los océanos, en los que se acumulan una cantidad de residuos/plástico de un tamaño gigantesco (formando una verdadera isla de plástico). La tierra es representada por "nuestra casa"; los océanos, el agua de la bañera y la isla de plástico, los envases de



## A natureza fala

Publicado el 27 junio, 2022 por [ebvira19](#) | [Deja un comentario](#)

Con este video describimos o cambio das árbores a causa do cambio climático. Antía Luhia Carballo Marinha Outeiral Suárez 3º ESO IES Poeta Añón (Outes)



## Laura e a tartaruga Lolita

Publicado el 25 junio, 2022 por [ebvira19](#) | [Deja un comentario](#)

Pretendemos enviar unha mensaxe de concienciación do cambio climático a través deste relato. Acceso al trabajo Marta Fernández Antelo Rocío García Brea 2º ESO IES Poeta Añón (Outes)



## O coidado do mar

Publicado el 25 junio, 2022 por [ebvira19](#) | [Deja un comentario](#)

Este traballo fixémoslo para informarnos de lo que está sucedendo no medio mariño, en relación coa contaminación e concienciarnos sobre iso. Pedro Martínez Bazarra Marco Avilés Buján 2º ESO IES Poeta Añón (Outes)



## Nós podemos crear un mundo mellor

Publicado el 25 junio, 2022 por [ebvira19](#) | [Deja un comentario](#)

O traballo trata de concienciar á xente das accións que deben realizar para que o mundo sexa mellor e cambien as formas de utilizar os recursos (luz, auga...). Iago Antelo Troncoso Zaira Sanmartín Herbosa 3º ESO IES Poeta Añón (Outes)



## Por un planeta A

Publicado el 25 junio, 2022 por [ebvira19](#) | [Deja un comentario](#)

O obxectivo deste vídeo é a visualización dalgúns problemas ambientais e plantexar algunhas posibles solucións para manter o planeta nunhas condicións favorables. Sara Pérez Lago Marta Brión Nieto 3º ESO IES Poeta Añón (Outes)



## Nuestro Océano

Publicado el 25 junio, 2022 por [montseinoquanzo](#) | [Deja un comentario](#)

El cambio global en el océano, reflejado en la naturaleza y sociedad. Inés Camacho Pimentel María Gertrudes Cebolo Piris 4º de ESO Instituto Español Giner de los Ríos, Lisboa, Portugal



## Música sobre el efecto invernadero

Publicado el 25 junio, 2022 por [montseinoquanzo](#) | [Deja un comentario](#)

Música inspirada en el cambio climático provocado por el efecto invernadero Pilar Parra Outeiro 4º ESO Instituto Español Giner de los Ríos (Lisboa, Portugal)



## Electrólisis del agua con energías renovables

Publicado el 25 junio, 2022 por [montseinoquanzo](#) | [Deja un comentario](#)

Nuestro objetivo en este trabajo es enseñar cómo podemos utilizar la energía eólica (del viento) que es una energía renovable para sacar 2 combustibles (haciendo el electrólisis del agua) y realizar una combustión pasando a energía mecánica. Hugo Reis Fabiani Tiago Reis Fabiani 4º ESO Instituto Español Giner de los



## Causas cambio climático

Publicado el 25 junio, 2022 por [montseinoquanzo](#) | [Deja un comentario](#)

Infografía sobre las causas del cambio climático Chloé Puertas Blanco Rita Marquez Amado 3º de ESO Instituto Español Giner de los Ríos (Lisboa, Portugal)

← Entradas más antiguas

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Entidades organizadoras:



## TRAINING OF EDUCATORS IN THE DANUBE DELTA

From 25 to 29 July 2022, the training of educators in the Danube Delta took place at the marine biological station of Prof. Dr. Ioan Borcea (Agigea) of the Universitatea Alexandru Ioan Cuza din Iasi (UAIC), partner of the project.

The event was attended by educators from all the countries of the consortium: Spain, Portugal and Poland. During its development, different ecosystems were studied and the application of the methodologies and tools of school science of the project in these ecosystems was analysed. In addition, the approach of the Black Sea case study to be included in the One Health e-Book and the school science intervention proposed therein were analysed.

The participants arrived at the biological station on 24 July. After being accommodated at the station, they were welcomed by Dr. Emanuel Ștefan Baltag - the station's coordinator - and Dr. Gabriel Plaván - PI of the Alexandru Ioan Cuza din Iasi University in the InnoEduCO2 Project. During the welcome, the participants were introduced to the study of the Black Sea on a scale model where different oceanographic processes relevant to the understanding of its functioning were explained.

On the first day, two field trips were carried out in the Eforie Nord area. Firstly, the educators visited Techirghiol lake to analyse its formation process, its characteristic salinity and the fauna present in it.

The second field trip took place in Mangalia, where the study of *Zostera* sp. seagrass meadows, the main thread of the One Health e-Book, was carried out.



The study focused on the decline of seagrass meadows in the Black Sea in recent years due to various factors, including the impact of public works such as the construction of ports and jetties. This impact, and its link to ecosystem health and human health, will be investigated in the Black Sea case study.

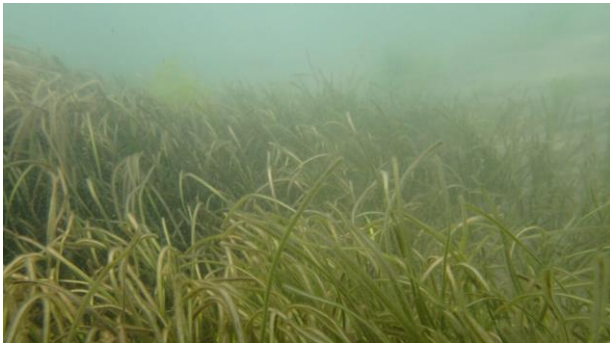
During the visit in Mangalia, different field data and photographic material was taken, which will later be used in the didactic material produced in the project.

On the second day, the group travelled to Tulcea, making a stop at the Babadag forest, an important nature reserve, where they were able to analyse the fauna present there and the potential impacts of climate change on it.

Then, from Tulcea, the group set off for the town of Sulina, crossing the Danube Delta Biosphere Reserve on a four-hour journey during which they were able to make interesting ornithological observations, spotting pelicans, kingfishers, cormorants, swifts, bee-eaters, purple herons and storks, among others.

On the third day, an investigation of the ecosystems of the Danube Delta was carried out by crossing the Sulina canal in a small boat. This allowed the analysis and recording in the project application of the different species observed there and the study of anthropogenic impacts experienced under the 'One Health' approach adopted in the project. In addition, the Letea forest, the oldest nature reserve in Romania, was visited and the biodiversity present there was analysed. To conclude the training day, the group travelled to the Lagoon Razim Complex, where they were able to study its formation process and its implications for irrigation in the area.





On the fourth day, the group returned to the city of Tulcea, where they visited the Danube Delta Museum, where they were guided through an analysis of the representation of the different ecosystems present in the Danube Delta and the evolution of the Delta itself to its current form. During this visit, potential contents to be included in the Black Sea case study, which will be available in the One Health eBook of the project, were analysed.



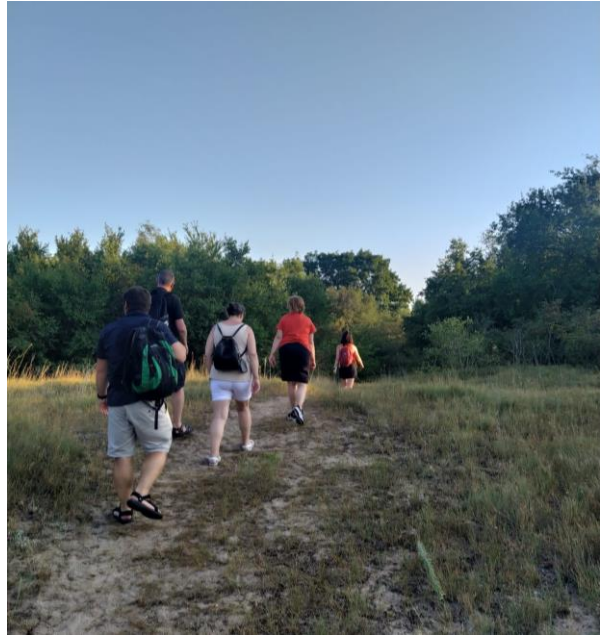
On the fifth day, the last training activity of the course took place, which consisted of an analysis of the restoration process of the Agigea dune complex.



The course represented an invaluable opportunity for the training approach to ecosystems as unique as those present in the Danube Delta, highlighting the importance of their conservation and, in addition, analysing and exploring new opportunities in relation to the contents and tools developed in the project.

In the InnoEduCO2 TV section you can watch the video summary of the main contents of the course.







## ONE HEALTH INTERNATIONAL CAMPUS FOR INITIATION TO RESEARCH AND COMMUNICATION AT AVEIRO

From 31 August to 4 September, the International Youth Science Campus on Climate Change - One Health/e-InnoEduC02 took place in Aveiro, bringing together 208 people, including 128 students and 32 teachers from Portugal, Spain, Romania, Poland, Mexico, Peru, Morocco and Panama.

In addition to students and teachers, the event was attended by ten researchers and 38 science communicators from the University of Aveiro, such as Paula Maria Rodrigues, from the Department of Communication and Arts, and Ana Sousa, from CESAM; as well as from Spain, including: Joaquín Araujo, naturalist, writer, journalist and director and scriptwriter of documentaries; Fernando Valladares, research professor at the Centro Superior de Investigaciones Científicas (CSIC) or María Martín, director of the Centro Nacional de Investigación sobre la Evolución Humana (CENIEH).

Fábrica Centro Ciencia Viva of Aveiro hosted and co-organised the event, together with the Climántica project of the University of Santiago de Compostela (SEPA-interea Group) and the Aveiro School Association.

The event took place within the scope of the European project which has as one of the objectives to find creative and educational answers to the problem of climate change, as well as to strengthen the capacity of schools for teaching and training in the area of STEAM and Environmental Education, in order to provide an inclusive digital education through the STEAM-ICT e-learning model, adapting distance learning to the curricular needs of scientific experimentation.

Throughout these five days of the ONE HEALTH International Campus, young people aged 13 to 17 participated in workshops on storytelling, singing, dance and theatrical and musical improvisation, visual arts, holography, robotics, photography, video and social networks, project development, such as the study of seagrass meadows, in a STEAM training programme to develop science communication products through art to raise awareness of the climate emergency.

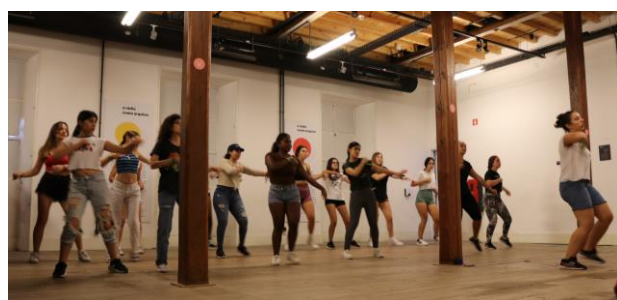
Based on the knowledge acquired at the Campus, the students were challenged to produce a musical show that brought together theatre, music, dance and visual arts; as well as six short films to raise awareness about climate change and an ENG school science project.



Integrated into the Campus, there was also a training programme for teachers on taking action to combat climate change, which included lectures and seminars with researchers, workshops and field trips.

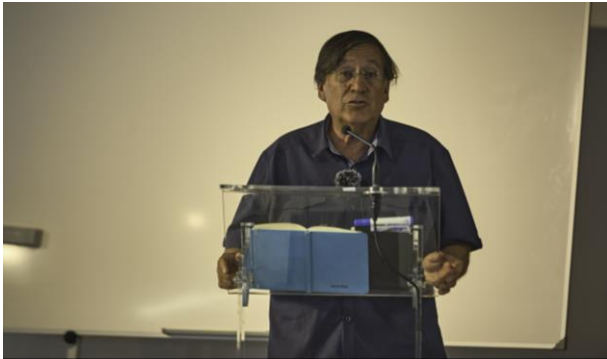
The closing event was followed by the final presentation of the musical show "Climantopia" and the short films, produced by the students. The event took place on 4 September in the auditorium of the Rectorate of the University of Aveiro, and was attended by Artur Silva, Vice Rector of the University of Aveiro, Rogério Carlos, Vice Rector of the Aveiro City Council, José Antonio Caride, from the University of Santiago de Compostela and coordinator of the InnoEduCO2 project, Francisco Sónora-Luna, also from the University of Santiago de Compostela and coordinator of the Climántica project, and Pedro Pombo, director of Fábrica.

The event was streamed and can be seen on the YouTube channel of [Fábrica Centro Ciência Viva of Aveiro](#). In addition, it is possible to access the Campus conferences in the InnoEduCO2 TV section .









## THE e-InnoEduCO2 PROJECT PRESENT AT THE INTERNATIONAL OPEN SCIENCE FAIR IN CAMBRE.

On 17 and 18 September, the Galician Supercomputing Centre (CESGA) participated in the Open Science Cambre 2022 together with more than 450 participants and 100 stands from different parts of Spain, Europe and America.

During those days we presented our work in the project with demos of the school science application InnoEduCO2, brochures and information from our website. Our project was very well received, and many people of all ages came to our stand to learn about it.

We even participated in a radio interview on a science-themed radio station "[Science is Feminine](#)".





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