



The European University for Smart Urban Coastal Sustainability (EU-CONEXUS) presents the second edition of their international school contest

'Think Smart, Create Green'

Contest rules and regulations



EU CONEXUS



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Content

1. Overview of the Contest.....	2
1.1. Main goals	3
1.2. Target groups	3
1.3. Topics' explanation	3
1.3.1. Projects' specifications	5
Category 1: pupils aged 12-14.....	5
Category 2: pupils aged 14-16.....	5
1.4. Expected impact.....	6
2. Eligibility.....	7
3. Timeline.....	7
4. How to Participate.....	9
5. Jury Composition.....	10
5.1. National jury	10
5.2. International jury	10
6. Winners' selection	10
6.1. National winners' selection procedure	10
6.2. International winners' selection procedure.....	11
6.3. Contest winner assessment	11
7. Prize	14
7.1. General rules	14
7.2. National prize	14
7.3. International prize	14
8. Contacts of EU-CONEXUS Universities' representatives	15

1. Overview of the Contest

EU-CONEXUS 'European University for Smart Urban Coastal Sustainability', formed by 6 European universities and 3 associated partners, is a transnational European higher education and research institution that covers the smart urban coastal sustainable development from a global point of view.

One of the main goals of the EU-CONEXUS consortium is raising awareness about the challenges faced by urbanised coastal areas in Europe and inspiring society to look for solutions to apply environment-friendly principles in their daily life.

Among their joint academic offers, EU-CONEXUS European University is also developing workshops and seminars for high schools. Therefore, partners came up with the idea of the International EU-CONEXUS School Contest 'Think Smart, Create Green'

EU-CONEXUS European University consists of:

6 partners

- Agricultural University of Athens (AUA), Greece,
- Klaipeda University (KU), Lithuania,
- La Rochelle Université (LRUniv), France,
- Universidad Católica de Valencia (UCV), Spain,
- University of Zadar (UNIZD), Croatia,
- Technical University of Civil Engineering of Bucharest (UTCB), Romania.

3 associated partners

- Frederick University, Cyprus,
- University of Rostock, Germany,
- Waterford Institute of Technology (WIT), Ireland.

1.1. Main goals

The **main goals** of this contest are:

- o to bring the EU-CONEXUS project closer to secondary education students to raise awareness about the sustainability of coastal areas and promote marine environmental consciousness.
- o to bring university life closer to secondary education students to encourage them to study STEM-related degrees and introduce future careers in related industries.

1.2. Target groups

- ✓ Two target groups:
 - o Pupils aged 12-14
 - o Pupils aged 14-16

1.3. Topics' explanation

Throughout history, people have considered coasts as ideal locations for their settlements. Coasts provided them with food supplies, transportation, communication with other settlements, less harsh climate, etc. Over time, small settlements have developed into highly populated and largely expanded cities with an increasing demand for natural resources and services, leading to a threat for the ecosystem and the cities themselves. Overexploited resources, atmospheric deposition, polluted water sources, threatened marine environment, forced modern citizens to change their way of dealing with these coastal areas.

Nowadays, there is a tendency to transform cities into sustainable, self-efficient, green and technologically intelligent environments, the so-called **Smart Cities**. Some of the commonly used strategies for modern cities are based on the use of renewable energies, the lower consumption of natural resources, the regeneration of the natural systems, and downplaying of waste and pollution.

In generic terms, a **Smart City** is an urban environment that utilizes Information and Communication Technology (ICT), and other related technologies, to enhance the performance efficiency of regular city operations and quality of services (QoS) provided to urban citizens.

In addition to the ICT infrastructure, the quality and availability of smart object networks have similar importance in building smart cities. Physical infrastructure is further extended to green buildings, green urban planning, renovation of buildings and amenities, and smart energy.

Smart buildings and **green buildings** share a common motive in terms of energy management. Green buildings focus on optimizing energy consumption and reducing carbon footprint. The smart energy concept is more appealing because it promotes a holistic approach that consolidates green, sustainable, and renewable energy.

A smart city is a city that is rapidly evolving to serve citizens with the most innovative smart solutions in all aspects of life. To that extend, another infrastructure that characterizes a **Smart City** are the **Smart** and **Green Ports**.

The port is a key element of maritime and inland water transport infrastructure. It is mostly an artificial construction, specially equipped for ships to enter, loading and unloading of cargo, as well as to maintain ships and replenish their supplies. The most important facilities of the port are cranes and loaders, berths and warehouses, support fleet and auxiliary transport (cars, railways).

Ports vary according to their activity: civil and military, international and cabotage, universal and specialized. Fishing ports have cold stores to store fish, and sometimes factories to process them. In supply ports, long-distance ships are supplied with fuel, fresh water and food.

A Green Port aims at achieving a low consumption of resources, green logistics systems, protection of waste from ships, and daily port operations. A Smart Port uses automation and innovative technologies including Artificial Intelligence, Big Data, Internet of Things and Blockchain to improve its performance.

Ports are facing various environmental problems. Top 10 environmental priorities: air quality, climate change, energy efficiency, noise, ship waste, water quality, garbage/port waste, dredging operations, land related port development, relationship with the local community.

As a solution to the aforementioned environmental problems, the concept of '**Green Port**' development aims at achieving a low consumption of resources and the design of green logistics seaport systems as a prerequisite for achieving environmental protection, energy efficiency and sustainable development. Most ports develop waste management plans to protect the port area from waste from ships and daily port operations. At the same time, a port can also be a '**Smart Port**', using automation and innovative technologies to improve its performance. However, these new types of ports are currently facing some challenges. The greening and digital transitions combined with the changing global political environment and the impacts of the COVID-19 pandemic.

For the needs of this contest, students are asked to choose between the two topics presented below to develop smart, green and sustainable proposals for the smart cities of the future:

1. Smart Ports for Sustainable Green Cities
2. Sustainable Green Buildings for Smart Cities

1.3.1. Projects' specifications

Category 1: pupils aged 12-14

Pupils aged 12-14 should create a 3D model project (using sustainable and biodegradable materials for example clay, paper and related products, cork, wood and related products, cotton, bamboo, etc.) showing all the specificities of their proposal as if to be presented to a construction company.

Model specifications

The model size should maintain the same scale on the whole model (Length, Height, and Width).

The model will be sent for evaluation to the corresponding EU-CONEXUS representative in the country for the pre-selection phase. The model should be accompanied by a pdf file that explains in detail the innovations it proposes to make European ports/ cities smarter and more sustainable.

Sending a video presenting the model to the national jury for pre-selection will only be accepted in cases when submitting the physical model is an impossibility. If the only available option to show the model to the national jury for the pre-selection is a video, these are the requirements: voice ON (verbally explained) or voice OFF (using explanatory text) (depends on students' choice); those videos should have enough quality for the national jury to notice all the relevant elements of the project (as an MP4, for example). Nonetheless, their quality will not be assessed, that is, it will not be taken into consideration by national juries regarding their decision.

The selected projects will be presented to the national juries on site. Students should interact face to face with their national jury. During the presentation, the students should show their design step by step focusing on the most important, and innovative, aspects. Common problems and proposed solutions should be clearly presented and justified.

In the event of a lockdown which prevents the national final from being face-to-face, students will still be required to directly interact with their national jury. No pre-recorded videos will be accepted for any final.

Category 2: pupils aged 14-16

Pupils aged 14-16 should create a **computer-designed model** showing in detail all the specificities of their proposal as if to be presented to a construction company.

Model specifications

For the project development, the following, or any other, programmes could be used: Minecraft schools, Roblox, Blocksworld, Growtopia, Lego Worlds, Block Craft

3D, SketchUp schools, etc.

The project will be sent for evaluation to the corresponding EU-CONEXUS representative in the country for the pre-selection phase. It can be sent, for example, as an MP4 video with voice ON (students themselves explain their project) or voice OFF with some explanatory text (depends on students). The submitted project should be accompanied by a pdf file that explains in detail the innovations it proposes to make European cities/ ports smarter and more sustainable.

The selected projects will be presented to the national juries on site. Students should interact face to face with their national jury. During the presentation, the students should show their design step by step focusing on the most important, and innovative, aspects. Problems and proposed solutions should be clearly presented and justified.

In the event of a lockdown which prevents the national final from being face-to-face, students will still be required to directly interact with their national jury. No pre-recorded videos will be accepted for any final.

1.4. Expected impact

The desired impact for **pupils** could be:

- To raise awareness about environmental sustainability.
- To develop English language skills.
- To trigger interest in other countries and cultures.
- To develop digital skills.
- To develop creativity skills.
- To boost team building skills.
- To become active for social change.
- To develop youth entrepreneurship and social responsibility.

The desired impact for **teachers** could be:

- To raise awareness about environmental sustainability.
- To develop English language skills.
- To create strong bonds with students.
- To experience different teaching methods.
- To develop project management skills.
- To open venues to set up/participate in Erasmus+ teaching/research projects.

2. Eligibility

- ✓ There is not any limitation in the number of schools, nor do teams within a school, that wish to participate. However, participants can be members of only one team, while teachers could lead more than one team within the same category.
- ✓ To be eligible to participate in this contest, candidates must be school students in any of the EU-CONEXUS member cities or region (EU-CONEXUS shall specify in their call, further called 'city').
- ✓ Public and private regional schools can participate.
- ✓ There will be two (2) categories according to the participants' age:
 - **12 - 14 years-old (born 2009 - 2007)**
 - **14 - 16 years-old (born in 2007 - 2005)**
- ✓ Participants will make their teams of four (4) pupils and a leading teacher. Only teams of 4 students will be accepted, no exceptions.
- ✓ There is no limit in the number of teams that a single school can present to the contest.
- ✓ One teacher is allowed to lead more than one group of students within the same category.
- ✓ Students cannot be members of more than one group.
- ✓ The presentation of projects to national juries could be in the national language or English. The presentation of projects to the international jury will be in English only. All the materials presented for the contest shall be in English.
- ✓ The project should have been originally created by the participants.
- ✓ Any extra material not openly required in the contest specifications will not be evaluated.

3. Timeline

Contest announcement (teachers)*:	November
2nd announcement (reminder):	December
Deadline of teams' registration*:	31/01/2022
Poster, video etc. submission deadline:	11/03/2022
Announcement of the 5-best works per age group:	30/03/2022

Projects' presentation to the national jury and announcement of national winners (1 per group) by the partner university	07/04/2022
Virtual projects presentation to the international jury and winner's announcement (1 per group) by the EU-CONEXUS European University:	05/05/2022

** Dates may change for organisational reasons*

4. How to Participate

Information

The information about the Contest will be disseminated by the EU-CONEXUS universities based on their practices and spread in schools. The rules will be published on <https://www.eu-conexus.eu/en/> and member universities' websites.

Application form

Participants, via their leading teacher, should complete the **application form** adding all the teams that he/she leads (application form: [Think Smart, Create Green \(univ-lr.fr\)](#)) by **31 January 2022**.

Authorisation forms

1. The legal guardians of the students should authorize the pupils' participation and image rights consent by signing the authorisation form. The relative document of each country will be accessible on the [EU-CONEXUS school contest](#) page.
2. By signing the Application and authorisation, the legal guardians and teachers agree on copyright, image rights, etc. for EU- CONEXUS dissemination and public assessment of works in national and international competition.
3. The authorisation form should be uploaded to the inscription account of each leading teacher* (*see below for more details about the inscription accounts).

Inscription accounts

1. For the convenience of the participants, personal accounts in the **EU-CONEXUS teaching platform** will be created for each leading teacher.
2. From **14-18/02/2022**, the EU-CONEXUS teaching platform **account details (username and password)** will be sent to the leading teachers.
3. The leading teachers should be able to access their teaching platform account here: <https://moodle.eu-conexus.eu/2021/>.
4. The leader teacher should upload the authorisation forms to their [Moodle personal account](#). ***IDs are not required, however, each school is free to follow its own rules and regulations.***

Projects' submission

1. The projects should be submitted by **11 March 2022**.
2. Considering that the submitted projects could not be all sent virtually, a pdf file that explains in detail the project with images and the innovations it proposes to make European cities/ ports smarter and more sustainable should be uploaded to the **EU-CONEXUS teaching platform** (see above).

5. Jury Composition

5.1. National jury

Seven (7) national juries will be formed (one (1) in each EU-CONEXUS city). The national jury will be composed of 5 members in total:

- ✓ 3 staff members of the university (1 Programme Committee for Vocational Training (PC VT) member + 2 others) + 1 stakeholder (sponsor) + 1 student from EU-CONEXUS Student Board.

5.2. International jury

One (1) international jury will be composed of 9 members in total:

- ✓ A PC VT representative from each partner (7 members in total) + an EU-CONEXUS Student Board representative + representative from any European Union institution or other sponsors (s) that contribute to the financing of the prize.

6. Winners' selection

6.1. National winners' selection procedure

- ✓ Only the works submitted on time will be part of the national (and later international) selection process.
- ✓ Pre-selection: The national jury will select up to five (5) best works per category (based on general and quality criteria)
- ✓ Final selection: The best final contestants must present their projects to the national jury during a University organised event.
- ✓ The contestants can present their projects in their national language or English. They will have 10 minutes in total, including the jury questions.
- ✓ The jury will announce the winners on the same day (one (1) per category and they will be announced as national winners).
- ✓ The winners will be informed by email.
- ✓

6.2. International winners' selection procedure

- ✓ EU-CONEXUS University submits the works of national winners (one (1) per category) to the international jury.
- ✓ The international contestants will present their works in English (virtually).
- ✓ They will have 10 minutes to do so. Then, the jury will have a maximum of 5 minutes to ask questions/ make comments. The jury will announce the winners on the same day (one (1) per category and they will be announced as international winners).
- ✓ The winners will be informed by email.

6.3. Contest winner assessment

6.3.1. General criteria

- ✓ quality of the work and respect of the established rules
- ✓ creativity and originality
- ✓ the way environmental sustainability has been tackled in the project
- ✓ oral capacities to present the project (fluency and clarity)

6.3.2. Specific criteria

Project Quality	Significant improvement required: 0,25pts.	Some improvement required: 0,5pts.	Good job: 1pt.	Excellent: 2 pts.
1. Task requirements	The project does not meet any of the task requirements. The task has not been understood.	The project barely meets the task requirements. Task not fully understood.	Only one task requirement missing/ not appropriately met.	All the task requirements are appropriately met.
2. Project originality	The project presents no innovative techniques/ resources/ ideas. It discusses stereotypes about the topic.	The project has tried, not always successfully, to present innovative techniques/ resources/ ideas.	A few innovative & original techniques/ resources/ ideas present.	Outstanding innovative techniques/ resources/ ideas present, which make the project unique.
Project presentation to the jury	Significant improvement required: 0,25pts.	Some improvement required: 0,5pts.	Good job: 1pt.	Excellent: 2 pts.
3. Presentation resources	Basic, simple PPT presentation; didn't go off the beaten path.	Tries to be more than a basic PPT presentation, still lacks innovation.	Makes use of presentation resources more innovative than PPT.	Project presented imaginatively and effectively, keeping the jury engaged throughout.
4. Time management	Less than 5 mins. or more than 15 mins.	5-7 or 13-15 minutes	8-9 mins. or 11-12 mins.	10 minutes

5. Public presentation skills	Too much hesitation; impeding pronunciation/ diction; hardly audible tone. Reading all the time, not a project presentation / No faces seen, impossible to determine if they are reading/ The participant does not look at the jury.	Some hesitation; articulation/ pronunciation/ diction difficult to follow at times. Too much reading, the participant hardly ever addresses the jury.	Hardly any hesitation; clear enough articulation/ pronunciation/ diction. Occasional reading, i.e. note checking here & there. The participant tries, not always successfully, to address the jury.	Clear articulation; good pronunciation/ diction throughout; appropriate body language. No reading at all, not even notes. The participant appropriately addresses the jury.
<i>The points that each team collected following the criteria will be uploaded to the teaching platform.</i>				

7. Prize

7.1. General rules

1. All the teams will receive a certificate of participation.
2. One (1) winner per category will be selected among the participating teams in each EU-CONEXUS city (national winner).
3. Then, each national winning team will compete at the international level.

7.2. National prize

EU-CONEXUS corporate goodies will be given to all the national winners (one (1) per category in each EU-CONEXUS city).

7.3. International prize

The top three teams of each category will travel to one of EU-CONEXUS cities or Brussels. Besides, depending on their place, the winners will receive different gifts*.

*In case of travel limitations due to COVID-19 or any other force majeure, the international prize may be substituted by another one of equivalent value.

8. Contacts of EU-CONEXUS Universities' representatives

City/Region	University's name	Contact person	Contact e-mail
Athens, Greece	Agricultural University of Athens (AUA)	Sophie Mavrikou Vera Charitou	sophie_mav@aua.gr vera.charitou@aua.gr
Klaipeda, Lithuania	Klaipeda University (KU)	Rima Mickeviciene Erika Župerkienė	rima.mickeviciene@ku.lt erika.zuperkiene@ku.lt
La Rochelle, France	La Rochelle Université (LRUniv)	Marie Boucheignies Christelle Tallon	schoolcontest-eu-conexus@univ-lr.fr
Valencia, Spain	Universidad Católica de Valencia (UCV)	Raquel Blave	euconexus@ucv.es
Zadar, Croatia	University of Zadar (UNIZD)	Valerija Šinko	vsinko@unizd.hr
Bucharest, Romania	Technical University of Civil Engineering of Bucharest (UTCB)	Mihnea Sandu	mihnea.sandu@utcb.ro
Frederick University, Cyprus	Frederick university	Nikleia Eteokleous	mail@nikleia.net