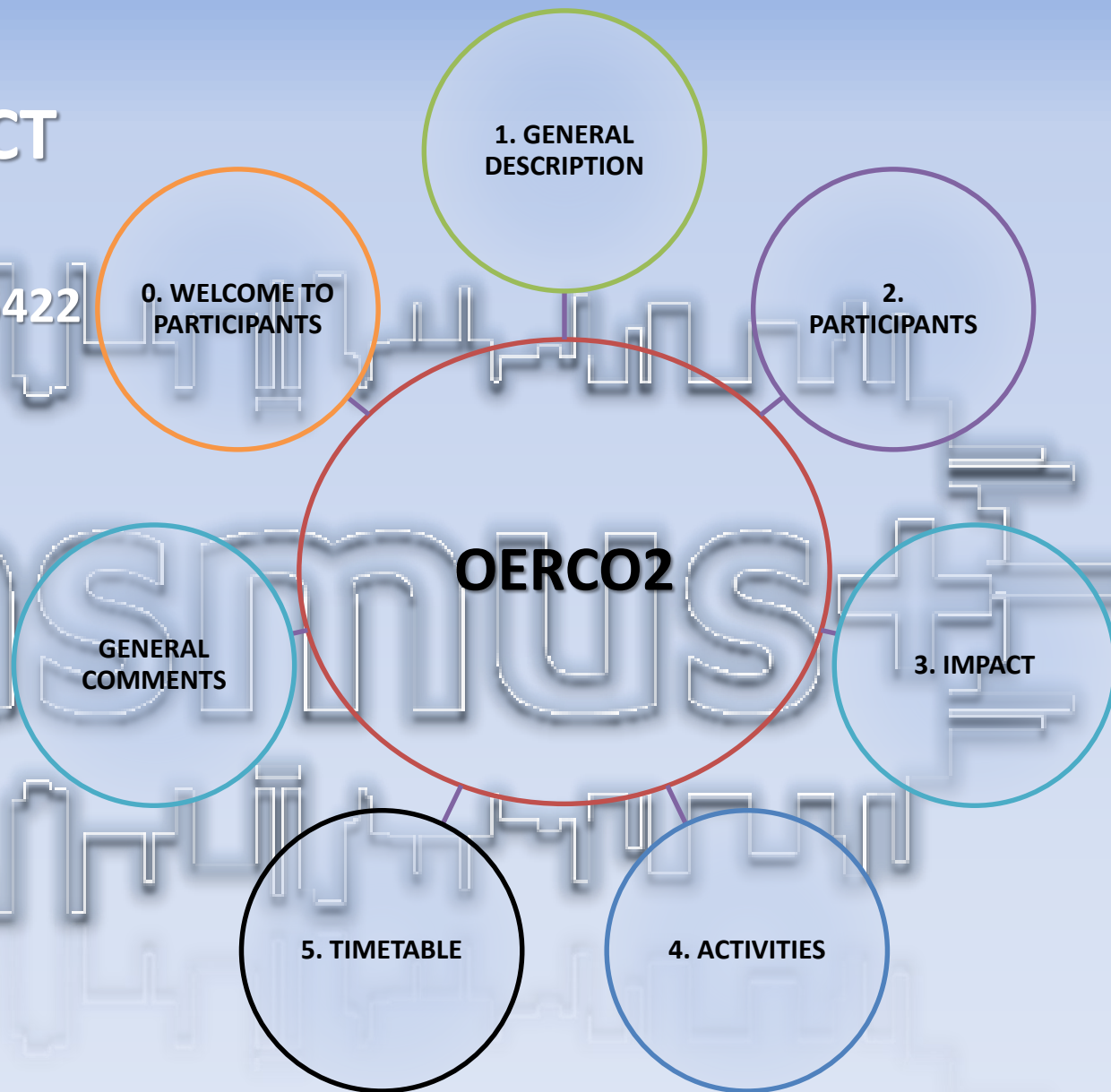


OERCO2 PROJECT PRESENTATION

2016-1-ES01-KA203-025422



**ONLINE EDUCATIONAL RESOURCE FOR INNOVATIVE STUDY OF
CONSTRUCTION MATERIALS LIFE CICLE**



1. General description of the project (I)

BACKGROUND

The awareness and environmental culture of citizens is expanding at same time that the regulations are stricter. Construction sector contributes with a 35-40% of the total of CO₂ emissions, for this, it is the moment to implant the carbon footprint calculation in buildings sector. Calculating carbon footprint enables to value the environmental impact regarding to greenhouse gas emissions in a complete manner, from the cradle to the grave. The first step to manage and reduce CO₂ emissions is calculate it, in order to know the importance of this environmental aspect and implementing measures to improving it. To obtain a better understanding of the impact and work on it, it is important to measure CO₂ emissions from de design and conception of the building, and according to these measures, knowing the different possibilities of reduce the footprint, doing a building more sustainable and lower-carbon.

It is indispensable to make aware of the emissions from the first phases of the project for taking early actions and choosing between the different materials, transports, constructive methods, use during the life of the building, deconstruction systems, reuse, etc., and examine how to contribute to increase or decrease the emissions of the building.

Currently, there are numerous studies about the footprint calculating of materials with their Environmental Product Declaration (EPD) and Energy Efficiency (EE) during the useful life of the building, but not during the construction and deconstruction process of it.

The idea of this project is to create an Open Educational Resource (OERCO₂) where the calculations of CO₂ emissions in each phase of the building are unified so that get an overall picture about footprint from the conception of it and decide on each variable of the construction.



1. General description of the project (II)

OBJECTIVES

To contribute to overcome the situation described above, the main objectives of OERCO2 are:

- Introduce the calculation of the CO2 emissions at all phases of the construction processes as well as concepts related to recycling and reuse.
- Increasing the awareness about the climate change.
- Provide information about emissions of each element.
- Free access to OERCO2 to agents involved in the construction sector (students, AEC professionals, etc.)



1. General description of the project (III)

PRODUCTS

The main results of this project are:

- Compilation of European and national regulations of participant countries on CO2 emissions in construction sector.
- Report on CO2 emissions and EPD (Environmental Product Declaration) in industries related to construction sector, where they are measured according to a product unit or constructive element (m3, m2, ml, ud, etc.).
- Interactive tool for calculation of CO2 emissions for construction processes, where different options, materials, constructive/deconstructive methods, etc. can be chosen.
- Web page of the project and OER (Open Educational Resource) where the interactive tool will be hosted, scientific articles, updated information, calculation methodology, related products, European common curricula for a specialised course, training materials, etc.

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2. Participants

CONSORTIUM

P01. Universidad de Sevilla (US). SPAIN

www.us.es

P02. Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales (CTM) . SPAIN

www.ctmarmol.es



P03. CertiMaC Soc. Cons. a r. L. (CertiMaC). ITALY

www.certimac.it



P04. Centro Tecnológico da Cerâmica e do Vidro (CTCV). PORTUGAL

www.ctcv.pt



P05. Universitatea Transilvania Din Brasov (UTBV). ROMANIA

www.unitbv.ro



ROMANIA
GREEN
BUILDING
COUNCIL

P06. Asociatia Romania Green Building Council (RoGBC). ROMANIA

www.rogbc.org



3. Impact

Universidad de Sevilla (USE) and UNIVERSITATEA TRANSILVANIA DIN BRASOV (UTBV) will guarantee impact of the results among students, enterprises related to construction sector, as well as they will resolve the technical issues of the project. On the other hand, there are large connection between technology centres of the project and business structure, which it will be another important element of the OERCO2 project where all partners will focus on. In addition, technology centres of OERCO2 project has also broad experience in methodologies, CO2 emissions calculation and EPD (Environmental Product Declaration) in its countries, what it is very useful to have a local vision of different procurements.

The Romania Green Building Council can make use of its close relationship with national Green Building Councils throughout Europe who would be eager to incorporate best-in-class learning on Lifecycle assessments for materials into their education programs. RoGBC was also a founding partner of Construction21.org - a social media platform for the sustainable construction and real estate practitioners that now includes over 14,000 registered members.

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4. Activities of the project



IO A		ACTIVITIES OF THE PROJECT	
O1		Study of the methodology for calculation of CO2 of constructive processes and analysis of life cycle. Common European Curricula	
	A1	Study of environmental regulations in all of the sectors involved related to construction and level of implementation in participant countries of the project.	
		Report about compilation of regulations	
		Report of level of implementation in each county and related sector	
		Report about level of acceptance of professional in the International Seminar of Murcia	
	A2	Study of Environmental Product Declaration (EPD) of construction sector in participant countries.	
		Report of materials of construction and constructive processes	
		Report of EPD in participant countries	
	A3	Study of methodologies applied in calculation of CO2 emissions in construction processes.	
		Report of level of implementation in universities, architects and engineers, etc.	
		Report of methodologies for calculation of CO2	
		Report of ecological and carbon footprint	
		Report of reusing and recycling.	
	A4	Production of common European curricula on specialisation of methodology for calculation of CO2 emissions of construction works throughout the entire life cycle of buildings (construction-maintenance-deconstruction) and techniques for its mitigation.	
Cross specialisation in university degrees related to AEC (Architecture, Engineering and Construction)			
Continuous training for professionals and enterprises			
O2		OER (Open Educational Resource)	
	A1	Production of the OER	
	A2	Testing of the OER	
	A3	Implementation of a pilot course on specialisation based on the OERCO2 project.	
O3		Interactive Tool OERCO2 to apply methodologies for calculation of CO2 emissions in construction works.	
	A1	Production of the Online Tool for calculation of CO2 emissions in construction works.	
	A2	Testing of Interactive Tool	

IO A		ACTIVITIES OF THE PROJECT
		National dissemination of project and project results
		International dissemination of project and products
		Dissemination through the Internet
		Overall management of the project
		Organisation of meetings
		Attendance to the meetings
		Interim and final reports
		Financial management
		Quality management of the project
		Quality assesment of Report and Web site
		Quality assessment of course (Technical content)
		Quality assessment of course (IT quality)
		General evaluation of the project

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5. Timetable



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Thank you very much for your attention!

1st OERCO2 INTERNATIONAL SEMINAR