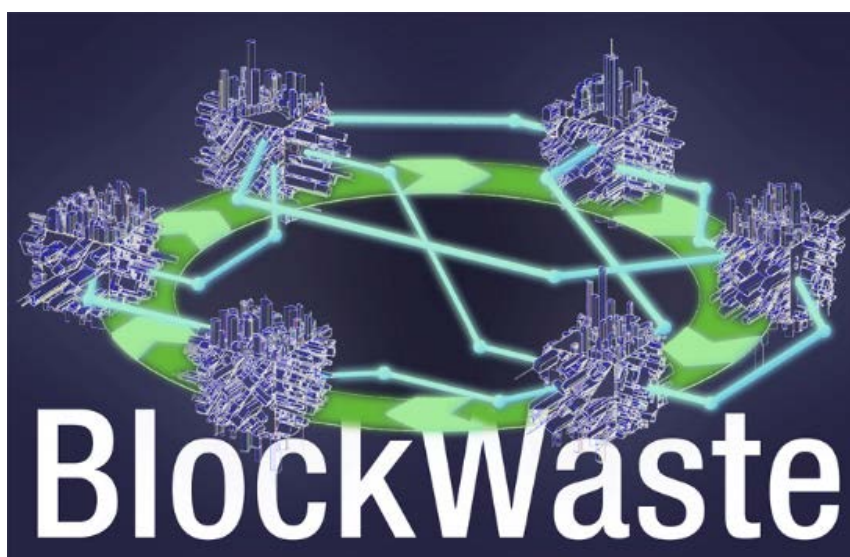


O4.A2 Avatud õpperessursi IT tootmine



Vastutusest loobumine

Seda projekti on rahastatud Euroopa Komisjoni toetusel. See väljaanne kajastab ainult autorite seisukohti ja komisjon ei vastuta selles sisalduva teabe võimaliku kasutamise eest.



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Väljundi teabeleht:

Rahastamisprogramm	Euroopa Liidu programm Erasmus+
Rahastamine NA	EL01 Kreeka riigi stipendiumifond (IKY)
Projekti täispealkiri	Jäätmekäitluses rakendatav uudne Blockchaini tehnoloogial põhinev koolitus – BLOCKWASTE
Väli	KA2 - Koostöö innovatsiooni ja heade tavade vahetamise nimel KA203 – Kõrghariduse strateegilised partnerlused
Projekti number	2020-1-EL01-KA203-079154
Projekti kestus	24 kuud
Projekti alguskuupäev	10.01.2020
Projekti lõppkuupäev:	30-09-2022

Väljundi üksikasjad:

Väljundi pealkiri: O4: BlockWASTE avatud õpperessurs (OER)

Ülesande pealkiri: A2 - Avatud õpperessursi IT tootmine.

Väljundi juht: CTM

Tööülesannete juht: CTM

Autor(id): David Caparros Perez, Centro Tecnológico del Mármol, Piedra y Materiales, david.caparros@ctmarmol.es, Hispaania, Juana Llorente, Centro Tecnológico del Mármol, Piedra y Materiales, juana.llorente@ctmarmol.es, Spainmol.es

Arvustanud: Maria Menegaki, Ateena riiklik tehnikaülikool, menegaki@metal.ntua.gr, Kreeka

Dokumendikontroll

Dokumendi versioon	Versioon	Muudatus
V0.1	29/07/2022	Lõplik versioon – 30.09.2022



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Kokkuvõte

See dokument kirjeldab avatud haridusressursside (OER) platvormi arendamist. Avatud õppematerjal valmistati BlockWASTE projekti 4. intellektuaalse väljundi "BlockWASTE avatud haridusressurss (OER)" raames. Dokumendis kirjeldatakse BlockWASTE projekti veebisaidi ja erinevate jaotiste/lehtede arendamiseks tehtud samme. Lõpuks tutvustatakse analüütiliselt avatud õppeasutuste platvormi ja väljatöötatud koolitusmaterjali.



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1 Sissejuhatus

1.1 Projekti lühikirjeldus

BlockWASTE eesmärk on juurutada rahvusvaheliselt uusi õppesisu eesmärgiga koolitada oma õpilasi partnerriikides ja anda neile vajalikud põhioskused, mis võimaldavad neil selles sektoris tulevaste töötajatena professionaalselt tegutseda, lisades digitaalseid pädevusi, mida vajavad valdkonnaga tegelevad ettevõtted. digitaalse transformatsiooni protsess. Selles mõttes on projekt suunatud:

- Ettevõtted ja VKEd, IT-spetsialistid, urbanistika ja jäätmekäitluse spetsialistid.
- Ülikoolid (professorid, üliõpilased ja teadlased).
- Avalik-õiguslikud asutused

Projekt sisaldab nelja intellektuaalset väljundit:

- O1. Interdistsiplinaarse Blockchain -MSW õppematerjalid
- O2. Euroopa ühtne MSW õppekava, mis rakendab plokiahela tehnoloogiaid ringmajanduse strateegiates
- O3. Blockchainil põhinev e-õppe tööriist - MSW keskendus ringmajandusele
- O4. BlockWASTE avatud õpperessurss (OER)

1.2 Dokumendi eesmärgid

See aruanne sisaldub ülesandes „O4-A2. Avatud õpperessursi IT tootmine”, mis vastab BlockWASTE projekti 4. intellektuaalsele väljundile "BlockWASTE avatud haridusressurss (OER)".

Valmistatud BlockWASTE kursuse elluviimise toetamiseks on loodud ja toodetud avatud õppematerjal. Avatud õpperessursi (OER) jaoks on koostatud koolitusmaterjalid.

REA jaoks on loodud spetsiifilised multimeedia materjalid, mis on informatiivseks aluseks, et kõigil asjaomaste sektorite üliõpilastel ja spetsialistidel oleks olemas vajalikud õppemetoodikad plokiahela tehnoloogia rakendamiseks jäätmekäitluses.

Koolitusmaterjalid on avatud kõigile kasutajatele. See on täiesti intuitiivne, et kasutaja saaks võimalikult palju õppeprotsessist osa võtta.

BlockWASTE OER ja kogu teave projekti kohta on saadaval järgmisel URL-il:

- BlockWASTE projekti veeb: <https://blockwasteproject.eu/>

- BlockWASTE OER: <https://blockwasteproject.eu/oer/>

Selle dokumendi sisu leiate veebisaidilt partnerite kõigis keeltes.



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2 BlockWASTE veebisait

2.1 BlockWASTE veebisaidi arendamine

Selle BlockWASTE projekti veebilehe lõi CTM projekti esimesel perioodil ning seda kasutatakse ühise kohana projekti toodete jagamiseks ja levitamistegevuste baasiks.

Esimesed sammud selle veebilehe loomiseks tehti projekti esimesel veebipõhisel koosolekul, kus CTM kui veebilehe ja platvormi arendamise eest vastutav partner pakkus välja mõned kehtivad veebiaadressid, projekti jaoks ja mis olid saadaval. Kõik partnerid otsustasid, et see saab olema <https://blockwasteproject.eu/>

Samuti tehti otsuseid veebilehele ilmuva projekti logo osas. Nagu alloleval pildil näha, ilmub veebilehe põhiekraanile projekti logo.



Kui saidi kõik graafilised üksikasjad, menüü ja logod olid otsustatud, kujundatud ja ellu viidud, hakati koguma põhiteavet projekti kohta, nagu kokkuvõtte, eesmärgid, projekti käigus välja töötatud aruannete loetelu jne. kaasatud. Seejärel on üles laaditud projektipartnerite läbiviidud uuringute ja uuringute tulemusena valminud dokumendid.

BlockWASTE veebileht sisaldab projekti peamisi intellektuaalseid väljundeid, nagu e-õppe tööriist (<https://blockwasteproject.eu/elearning-tool/>) ja OER (<https://blockwasteproject.eu/oer/>).

Tuleb märkida, et kogu veebisait on saadaval kõigis projektipartnerite keeltes. Olemasoleva sisu tõlkimisel osalesid kõik projekti partnerid, pakkudes tõlkeid oma emakeelde, samuti tehes parandusi ingliskeelsetes tõlgetes.

2.2 BlockWASTE veebilehe esitus

Järgmisel pildil peaks olema näha erinevat jaotist, millesse BlockWASTE projekti veebisait on jagatud, ja linke nendele jaotistele.

2.2.1 KODU

Link: <https://blockwasteproject.eu/>

The screenshot shows the homepage of the BlockWaste project website. At the top left, there is a logo for BlockWaste and the IKY logo. To the right of the IKY logo is the European Union flag and the text "Co-funded by the Erasmus+ Programme of the European Union". The top navigation bar includes links for HOME, PROJECT, REPORTS, DER, E-LEARNING, NEWS, CONTACT, and a search icon. The main content area features a large, stylized graphic of interconnected nodes and lines, representing a network or data structure. Below this graphic, the word "BlockWaste" is written in large, white, bold letters. Underneath the title, there is a line of text: "You can also find information about the project on partners websites". Below this text are five boxes, each containing a partner's logo and name: National Technical University of Athens, Asociação Empresarial de Investigaçao Centro Tecnológico do Mármore, Pedra y Materiales, Stichting Saxion, Tallinn University of Technology, and Fachhochschule Bielefeld. At the bottom right of the page, the project code "2020-1-EL01-KA203-079154" is displayed.

Project code 2020-1-EL01-KA203-079154

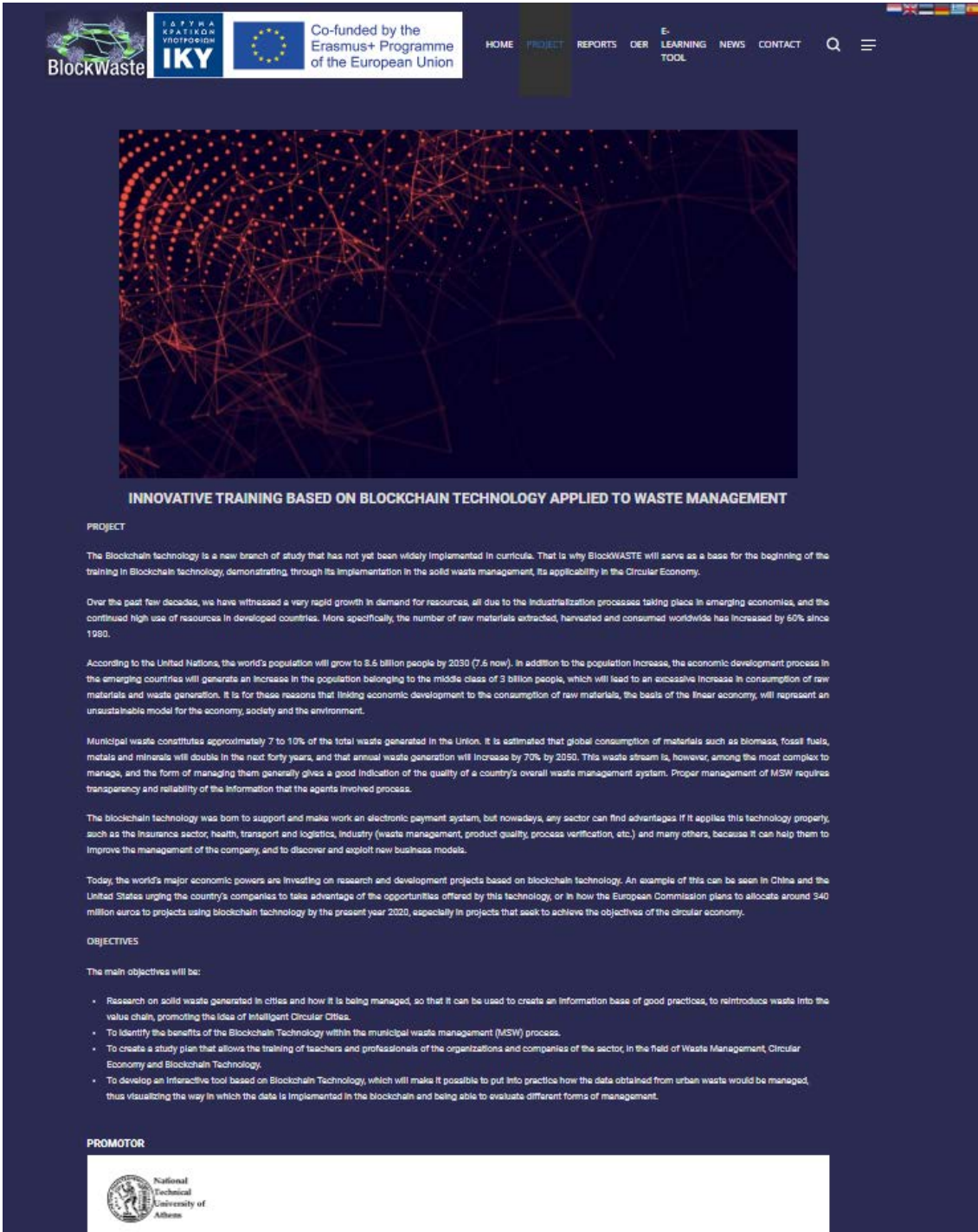




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2.2.2 PROJEKT

Link: <https://blockwasteproject.eu/project/>



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

HOME PROJECT REPORTS DIER LEARNING TOOL NEWS CONTACT Q

INNOVATIVE TRAINING BASED ON BLOCKCHAIN TECHNOLOGY APPLIED TO WASTE MANAGEMENT

PROJECT

The Blockchain technology is a new branch of study that has not yet been widely implemented in curricula. That is why BlockWASTE will serve as a base for the beginning of the training in Blockchain technology, demonstrating, through its implementation in the solid waste management, its applicability in the Circular Economy.

Over the past few decades, we have witnessed a very rapid growth in demand for resources, all due to the industrialization processes taking place in emerging economies, and the continued high use of resources in developed countries. More specifically, the number of raw materials extracted, harvested and consumed worldwide has increased by 60% since 1980.

According to the United Nations, the world's population will grow to 8.5 billion people by 2050 (7.6 now). In addition to the population increase, the economic development process in the emerging countries will generate an increase in the population belonging to the middle class of 3 billion people, which will lead to an excessive increase in consumption of raw materials and waste generation. It is for these reasons that linking economic development to the consumption of raw materials, the basis of the linear economy, will represent an unsustainable model for the economy, society and the environment.

Municipal waste constitutes approximately 7 to 10% of the total waste generated in the Union. It is estimated that global consumption of materials such as biomass, fossil fuels, metals and minerals will double in the next forty years, and that annual waste generation will increase by 70% by 2050. This waste stream is, however, among the most complex to manage, and the form of managing them generally gives a good indication of the quality of a country's overall waste management system. Proper management of MSW requires transparency and reliability of the information that the agents involved process.

The blockchain technology was born to support and make work an electronic payment system, but nowadays, any sector can find advantages if it applies this technology properly, such as the insurance sector, health, transport and logistics, industry (waste management, product quality, process verification, etc.) and many others, because it can help them to improve the management of the company, and to discover and exploit new business models.


Today, the world's major economic powers are investing on research and development projects based on blockchain technology. An example of this can be seen in China and the United States urging the country's companies to take advantage of the opportunities offered by this technology, or in how the European Commission plans to allocate around 340 million euros to projects using blockchain technology by the present year 2020, especially in projects that seek to achieve the objectives of the circular economy.

OBJECTIVES

The main objectives will be:

- Research on solid waste generated in cities and how it is being managed, so that it can be used to create an information base of good practices, to reintroduce waste into the value chain, promoting the idea of Intelligent Circular Cities.
- To identify the benefits of the Blockchain Technology within the municipal waste management (MSW) process.
- To create a study plan that allows the training of teachers and professionals of the organizations and companies of the sector, in the field of Waste Management, Circular Economy and Blockchain Technology.
- To develop an interactive tool based on Blockchain Technology, which will make it possible to put into practice how the data obtained from urban waste would be managed, thus visualizing the way in which the data is implemented in the blockchain and being able to evaluate different forms of management.

PROMOTOR

 National Technical University of Athens

2.2.3 R ARUANDED

Link: <https://blockwasteproject.eu/reports/>



BlockWaste ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ, ΕΡΕΥΝΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ **IKY** Co-funded by the Erasmus+ Programme of the European Union

HOME PROJECT **REPORTS** OER E-LEARNING TOOL NEWS CONTACT

HERE YOU WILL FIND ALL DOCUMENTS AND REPORTS OF THE BlockWASTE PROJECT

01. Learning materials for interdisciplinary Blockchain-MSW

- 01/A1. Comparative study of municipal solid waste (MSW) management regulations in each country.
- 01/A2. Comparative study of Information technologies applied to waste management at international level.
- 01/A3. Handbooks of Circular Economy strategies applied to Municipal Waste Management using Blockchain technology.

02. European common curricula on MSW applying Blockchain technologies for Circular Economy strategies

- 02/A1.1. Comparative study of the curricula focused on Blockchain technology in the participating countries.
- 02/A1.2. Comparative study of the curricula focused on municipal waste management (MSW) in the participating countries.
- 02/A2. Production of a municipal waste management curriculum using blockchain technology.

03. E-Learning tool based-on Blockchain-MSW focused on Circular Economy

- 03/A1. Production of the database for the E-Learning Tool.
- 03/A2. Guideline notes and functional specifications.
- 03/A3. Interactive BlockWASTE Tool.
- 03/A4. Technical test and implementation of IT improvements Interactive BlockWASTE Tool.
- 03/A5. Pedagogical test and implementation of IT improvements of Interactive BlockWASTE Tool.

04. BlockWASTE Open Educational Resource (OER)

- 04/A1. Building the Collaborative Platform.
- 04/A2. IT production of Open Educational Resource.
- 04/A3. Pilot BlockWASTE Course implementation: environment test and technical improvements.

2.2.4 OER

Link: <https://blockwasteproject.eu/oer/>

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

HOME PROJECT REPORTS OER E-LEARNING TOOL NEWS CONTACT

OPEN EDUCATIONAL RESOURCE

In this open-access platform, you can access all the information collected during and beyond the end of the project. The platform provides more information for self-learning education.

COLLABORATIVE PLATFORM

DIRECT ACCESS PRIVATE AREA

National Technical University of Athens Centro Tecnológico del Mármol, Piedra y Materiales SAKION UNIVERSITY OF APPLIED SCIENCES TAL TECH FH Bielefeld University of Applied Sciences

Project code 2020-1-EL01-KA203-079154



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2.2.5 E-ÖPPEAINE

Link: <https://blockwasteproject.eu/elearning-tool/>

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

HOME PROJECT REPORTS DIER E-LEARNING TOOL NEWS CONTACT

E-LEARNING TOOL

LOG IN

National Technical University of Athens Centro Tecnológico del mármol, piedra y materiales SAXION UNIVERSITY OF APPLIED SCIENCES TAL TECH FN Waterford University of Applied Sciences

Project code 2020-1-EL01-KA203-079154



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2.2.6 N UUDISED

Link: <https://blockwasteproject.eu/news/>



The screenshot shows the news section of the BlockWaste project website. At the top, there are logos for BlockWaste, IKY (Ελληνική Δημοκρατία), and the Erasmus+ Programme of the European Union. The navigation menu includes HOME, PROJECT, REPORTS, DIER, E-LEARNING TOOL, NEWS (highlighted), and CONTACT. A search icon and a hamburger menu icon are also present. The main content area features a large blue and purple abstract image with a globe and circular patterns. Below this, the section is titled "NEWS AND EVENTS".

Save the date! The BlockWaste consortium holds its first project seminar
November 26, 2021
Recycling your mindset? You can make a difference. On 10 December next, the First International Online Seminar of European common curricular on MSW applying Blockchain technology for Circular Economy strategies

[Read More >](#)

Seguimos trabajando en el proyecto europeo BlockWASTE
April 21, 2021
El pasado lunes 12 de abril, la Asociación Empresarial Centro Tecnológico del Mármol, Piedra y Materiales asistió a la reunión online de seguimiento del proyecto europeo BlockWASTE "Innovative training"

[Read More >](#)

Reunión técnica online del proyecto europeo BlockWASTE
March 9, 2021
La Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales asistió el pasado lunes 1 de marzo a la reunión técnica del proyecto BlockWASTE bajo el título

[Read More >](#)

Celebrada la segunda reunión online del proyecto europeo BlockWASTE
February 9, 2021
La Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales asistió el pasado 1 de febrero a la segunda reunión del proyecto BlockWASTE bajo el título "Innovate"

[Read More >](#)

Celebrado el primer encuentro online del proyecto europeo BlockWASTE
November 30, 2020
La Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales asistió el pasado 26 de noviembre a la primera reunión online del proyecto "BlockWASTE: Innovative training based on"

[Read More >](#)

Comienza el proyecto europeo BlockWASTE del programa Erasmus+
November 1, 2020
La Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales participa en el proyecto "BlockWASTE: Innovative training based on Blockchain technology applied to waste management", que será coordinado

[Read More >](#)

2.2.7 Κ ΚΟΝΤΑΚΤ

Link: <https://blockwasteproject.eu/contact/>

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

HOME PROJECT REPORTS OER E-LEARNING TOOL NEWS CONTACT

CONTACT

Your name (required)

Your email (required)

Subject

Message

Please enter the CAPTCHA code **KFHU**

Send

You consent, by checking this box, to receive commercial and courtesy communications related to our entity through the telephone, ordinary postal mail, fax, email or equivalent electronic means of communication.

National Technical University of Athens Centro Tecnológica del metal, plomo y materiales SAXION UNIVERSITY OF APPLIED SCIENCES TAL TECH FN Waterford University of Applied Sciences

3 BlockWASTE avatud õpperessurs (OER)

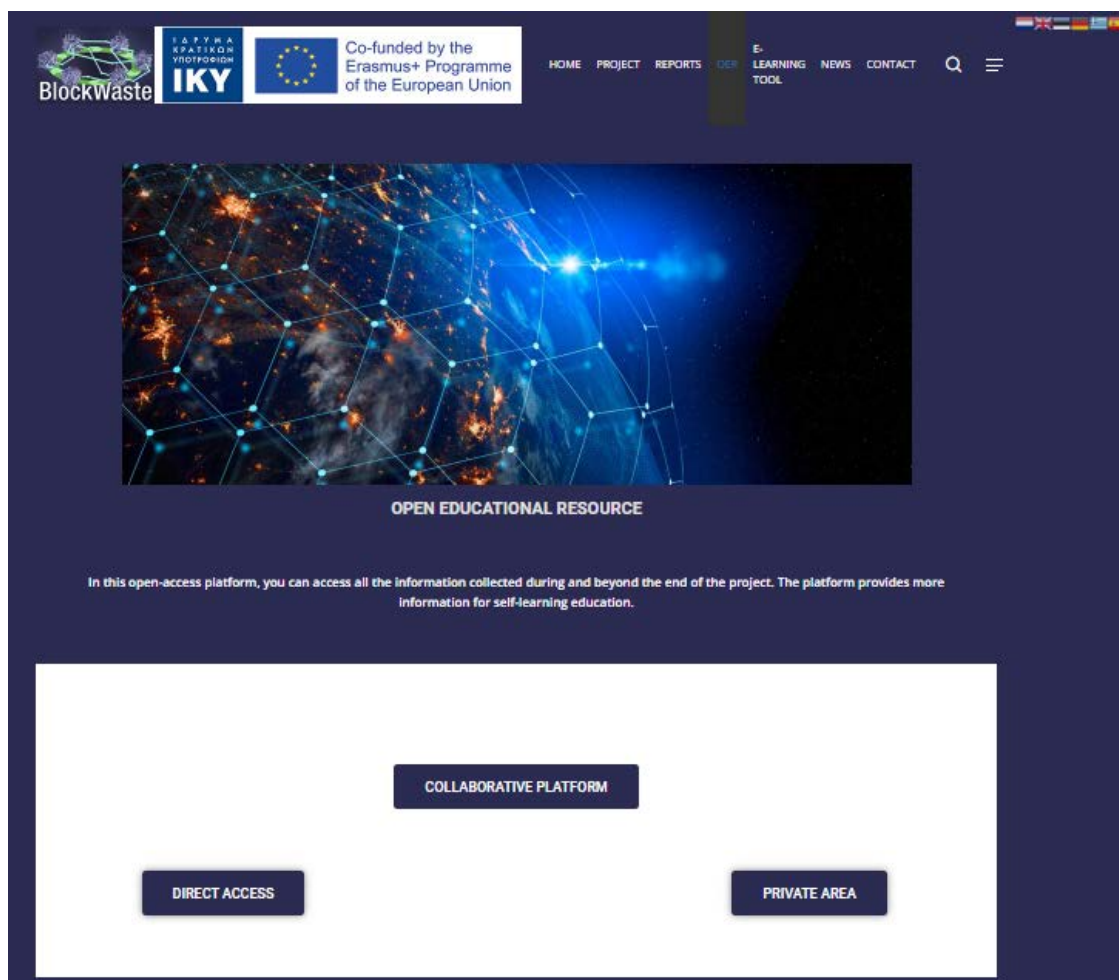
See avatud õppematerjal loodi ja toodeti selleks, et toetada BlockWASTE kursuse ja interaktiivse BlockWASTE tööriista rakendamist. See on projekti veebisaidil tasuta saadaval, et seda saaks kasutada paljudel kursustel abimaterjalina.

BlockWASTE OER-i peetakse projekti üheks põhiülesandeks ja seetõttu tuleb selle korrektsel väljatöötamisel ja kujundamisel pöörata erilist tähelepanu. Sel põhjusel oli CTM selle OER-loenduse arendajaks koos ülejäänud partnerite toel ja panusega.

3.1 BlockWASTE projekti esitlus

BlockWASTE projekti OER on saadaval lingil: <https://blockwasteproject.eu/oer/>

Selleks, et see avatud õppematerjal sisaldaks kogu projekti teavet ja sisu konsulteerimiseks korrastatult ja intuiitiivselt, otsustati see jagada nii paljudeks osadeks, kui palju see sisaldab erinevat sisu.



Loodud erinevad jaotised olid:

3.1.1 Otsene juurdepääs

Otsese juurdepääsu jaotises leiame 3 alamjaotist:

- **Määrused** (<https://blockwasteproject.eu/oer/regulations/>). See alajaotis sisaldab dokumente, mis sisaldavad projekti teemaga seotud määrusi, olgu selleks siis plokiahel , jäätmekäitlus või ringmajandus.
- **Tehnilised dokumendid** (<https://blockwasteproject.eu/oer/technical-documents/>). Sellest alapeatükist leiame BlockWASTE projekti erinevate ülesannete aruanded.
- **Levitamine** (<https://blockwasteproject.eu/oer/dissemination/>). Selles viimases alajaotuses saate vaadata aruannet BlockWASTE projekti levitamistoimingute kohta.

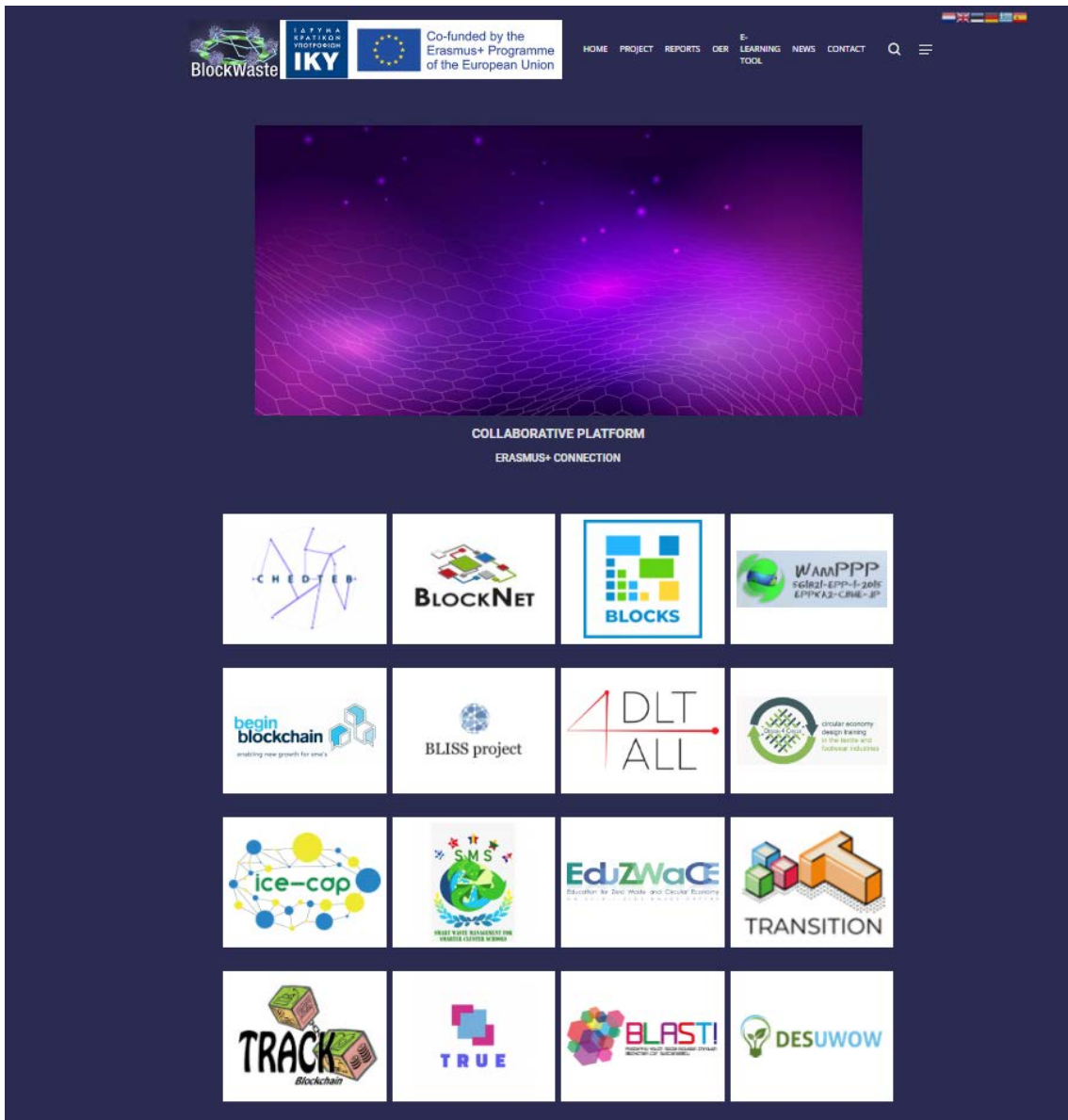
3.1.2 Koostööplatvorm

Avatud õppeasutuste raames korraldatav koostööplatvorm (<https://blockwasteproject.eu/oer/collaborative-platform/>) tutvustab arvukalt projekti põhiteemadega (jäätmekäitlus ja plokiahel) seotud projekte, et luua sünergiat teiste varasemate projektidega. ning kasutada ära nendes projektides välja töötatud koolitusmaterjale, et teadmisi täiendada ja laiendada.



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Logodel klõpsates saate iga projekti kohta lisateavet ja minna nende veebisaidile (kui see on saadaval).



Begin

“Instead of putting the taxi driver out of a job,

3.1.3 MOOC

MOOC (Massive Open Online Course), mida korraldab OER (<https://class.blockwasteproject.eu/>), toetab õpetajaid ja õppijaid kursuste läbiviimisel. See on paindlik õppimisviis, kuna osalejad pääsevad sellele juurde kõikjalt ja igal ajal.



Discover Our Programs



You Can Enroll Wide Range Of Courses In This Canvas To Full Fill Your Dreams.



Test

Municipal waste management using blockchain technology

Prueba

Programmi "Plokiahela tehnoloogiad kasutav olmejäätmete käitlemine" sisenedes näeme nii projektis loodud materjale kui ka täiendavat materjali (regulatsioonid, videod ja seonduvad artiklid jne) kasutajate teadmiste laiendamiseks.



Dashboard / Courses / BlockWASTE Course

Turn editing

Navigation

- Dashboard
- Site home
- Site pages
- Courses
 - BlockWASTE Course
 - Participants
 - Badges
 - Competencies
 - Grades
 - General
 - UNIT 1. Municipal solid waste
 - UNIT 2. Existing MSW management strategies
 - UNIT 3. CIRCULAR ECONOMY
 - UNIT 4. Circular Economy and MSW management
 - UNIT 5. Introduction to the Blockchain
 - UNIT 6. Transforming Municipal Waste Management wi...
 - UNIT 7. Guidance for starting Blockchain based Was...
 - UNIT 8. Blockchain based Waste Management Game
 - handbook 1. Waste management and Circular Economy
 - HANDBOOK 2.

GENERAL

Announcements

Brief project description

Mark as done

UNIT 1. MUNICIPAL SOLID WASTE

Presentation of the unit 1.

Mark as done

Video 1. Environmental impacts of landfill leachate.

Mark as done

Video 2. How does a landfill work?

Mark as done

Video 3. Learn the Principles of Landfill Gas Generation.

Administration

- Course administration
 - Edit settings
 - Course completion
 - Users
 - Filters
 - Reports
 - Gradebook setup
 - Badges
 - Backup
 - Restore
 - Import
 - Copy course
 - Reset
 - Question bank
 - Accessibility toolkit

Site administration

Search in settings

Video 4. How gases and liquids are drained from landfills.

Mark as done

Video 5. Advantages and Disadvantages of Waste Incineration.

Mark as done

Video 6. Impacts and limitations of recycling.

Mark as done

Video 7. What a Waste 2.0: Everything You Should Know About Solid Waste Management.

Mark as done

Video 8. Why don't we just burn our trash?:

Mark as done

UNIT 2. EXISTING MSW MANAGEMENT STRATEGIES

Presentation of the unit 2.

Mark as done

Video 1. Video on Waste Hierarchy

Mark as done

Video 2. Brief introduction to landfills


Mark as done

Video 3. Organics Decomposition in a Landfill


Mark as done

Video 4. Landfill leachate


Mark as done

 Video 5. Landfill gas


Mark as done

 Video 6. Waste to Energy - process explanation


Mark as done

 Video 7. Waste to Energy: Inside the SYSAV Plant in Malmo, Sweden


Mark as done

 Video 8. Waste-To-Energy Pyrolysis Conversion Process


Mark as done

 Video 9. Waste to Energy by Advanced Gasification


Mark as done

 Video 10. Lecture "RDF from municipal solid wastes" by Dirk Lechtenberg

Mark as done


 Video 11. Organic waste treatment

Mark as done


 Video 12. Recycling municipal waste


Mark as done


UNIT 3. CIRCULAR ECONOMY


 Presentation of the unit 3.


Mark as done


 Video 1. Linear Economy Model.

 Video 2. Explaining the Circular Economy and How Society Can Re-think Progress | Animated Video Essay:


 Video 3. Circular Economy: Beyond Recycling.


 Video 4. What is a linear economic model?


 Video 5. Defining linear vs circular economy.


 Video 6. How to move from a linear economy to a circular economy.


UNIT 4. CIRCULAR ECONOMY AND MSW MANAGEMENT


 Presentation of the unit 4.

 Video 1. Webinar: Introduction to Smart Waste Management | WasteHero


 Video 2. Circular Economy and solid waste management.

 Video 3. Circular Economy in Waste management.


 Video 4. Can A Circular Economy Make Trash Obsolete?

 Video 5. Towards a circular economy - waste management in the EU.


Mark as done

 Video 6. Waste management and Circular Economy at POLIMI (Part 1)


Mark as done

 Video 7. Waste Management 4.0 and Tech Trends – Waste Metering Powered by AI.


Mark as done

 Video 8. Recycling Robots - Companies Turn to Robots to Help Sort Recyclables & Waste - Waste Robotics.


Mark as done

 Video 9. Robotics & AI Innovation Network | Using RAI to support waste management.

Mark as done


 Video 10. Case study: IoT based waste management for Santander smart city.

Mark as done

 Video 11. A Novel IOT and AI based Smart Waste Management System.

Mark as done

UNIT 5. INTRODUCTION TO THE BLOCKCHAIN

 Presentation of the unit 5.


Mark as done

 Video 1. Blockchain In 7 Minutes | What Is Blockchain | Blockchain Explained | How Blockchain Works | Simplilearn

Mark as done

 Video 2. How does a blockchain work - Simply Explained.


Mark as done

 Video 3. What is A Smart Contract? | Smart Contracts Tutorial | Smart Contracts in Blockchain | Simplilearn.


Mark as done

 Video 4. Types of Blockchain Explained | Blockchain Types

Mark as done


 Video 5. What is a dApp? Decentralized Application on the Blockchain

Mark as done


 Video 6. Bitcoin SV massive open online course

Mark as done

UNIT 6. TRANSFORMING MUNICIPAL WASTE MANAGEMENT WITHIN THE CIRCULAR ECONOMY


 Presentation of the unit 6.

Mark as done

 Video 1. Circular economy in waste management | ACCIONA.


Mark as done

UNIT 7. GUIDANCE FOR STARTING BLOCKCHAIN BASED WASTE MANAGEMENT PROCESSES


 Presentation of the unit 7.

Mark as done

UNIT 8. BLOCKCHAIN BASED WASTE MANAGEMENT GAME


 Guideline notes and functional specifications

Mark as done


 Description of the interactive tool.

Mark as done

HANDBOOK 1. WASTE MANAGEMENT AND CIRCULAR ECONOMY

 Handbook 1.


Mark as done

 BlockWASTE Handbook No1 FV

Mark as done


Hidden from students

HANDBOOK 2. BLOCKCHAIN

 Handbook 2.

Mark as done

HANDBOOK 3. BLOCKCHAIN BASED MUNICIPAL WASTE MANAGEMENT

 Handbook 3.

Mark as done

Kasutajad saavad programmi läbi töötada, lugedes teemasid ja esitades kaasnevaid videoid.



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Presentation of the unit 1.

Mark as done

UNIT 1. Municipal Solid Waste

BlockWaste

1.1. Definition
1.2. Classification
1.3. MSW st...

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Erasmus+ BLOCKWASTE

Last modified: Monday, 6 June 2022, 9:20 AM



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





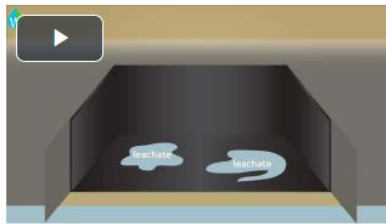
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Video 1. Environmental impacts of landfill leachate.

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◀ Presentation of the unit 1.

Jump to...

Video 2. How does a landfill work? ▶