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Project nº: 2018-1-ES01-KA201-050618

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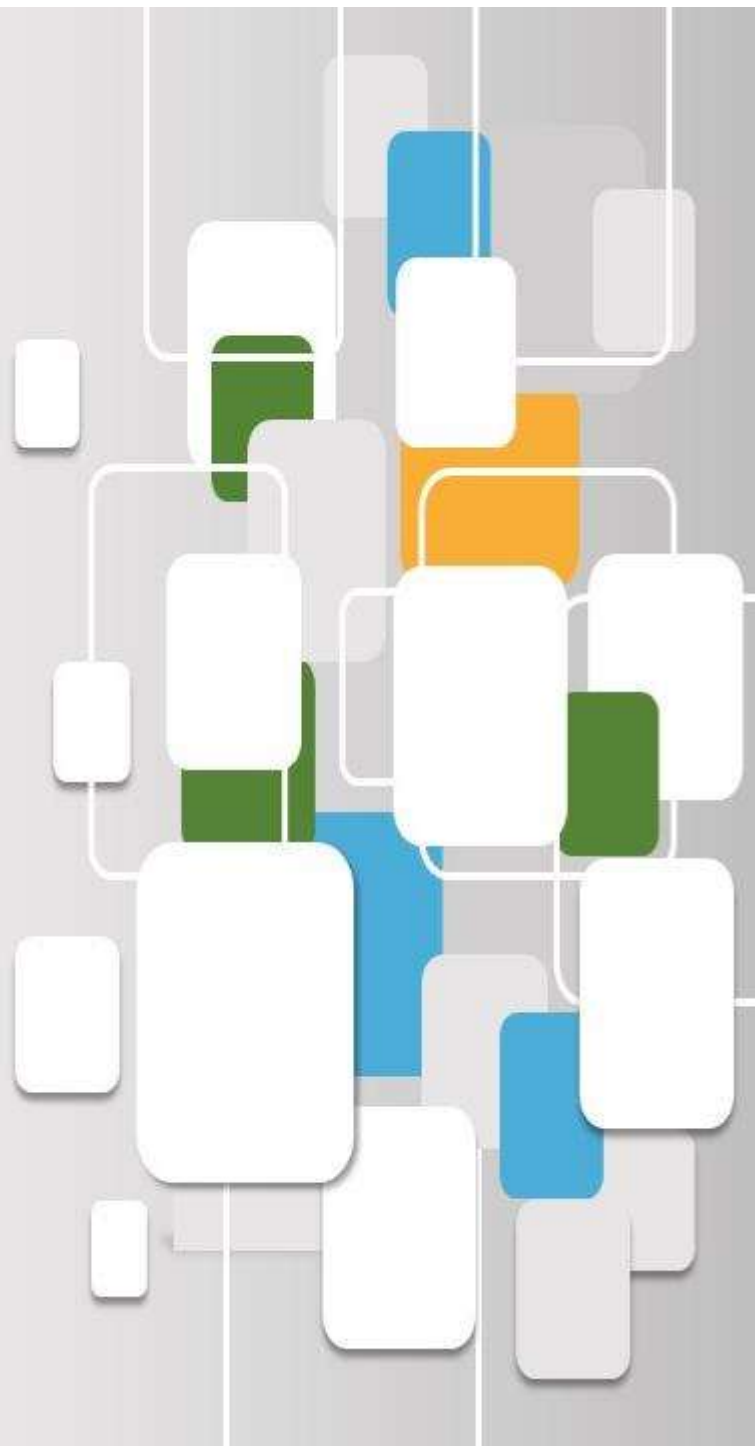
“Ciro – Introducing the importance of the coming European “green” energy model in School Education”

Tracking and monitoring of the CIRO Project

Transnational meeting M2

Coesfeld (Germany) - 16th January 2020

Esperanza Montero & Marina Cárdenas
(ARIEMA)





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- **Meeting's Agenda**
- **Tracking Project Progress**
- **Timetable and next steps**
- **Interim Report**



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Meeting's Agenda

Thursday, 16th January 2020- h 09:00-21:30 (whole day activities)

09:00-11:00h Tracking and monitoring. Project interim report issues.

Promoted by: ARIEMA, project coordinator

Subject: Joint review of the project status respecting the schedule, progress made, next steps, justification to the National Authority and realization of the Interim Report (to be handed by February 2020).

Estimated time: 2 hours

11:00-11:15h Short break

Estimated time: 15 minutes

11:15-13:00h Visiting Heriburg School facilities

Promoted by: HERIBURG

Subject: guided tour along the school facilities, showing the partnership the activities, materials and training workshops that Heriburg is carrying out within the framework of Ciro project.

Estimated time: 1 hour 45 minutes

13:00-14:30h Lunch break

Estimated time: 1 hour 30 minutes

14:30-19:30h Visiting Saerbeck

Promoted by: HERIBURG

Estimated time: 5 hours

19:30- 21:30 Dinner

Estimated time: 2 hours

Friday, 17th January 2020 – h 09:00- 13:30 (morning)

09:00-11:00h Discussion CIRO competition rules

Promoted by: All partners

Subject: Discussion about the CIRO competition rules and definition of a first draft of the document of guidelines to be followed by students and teachers participating. Definition of the CIRO competition awards.

Estimated time: 2 hours

11:00-11:15h Short break

Estimated time: 15 minutes

11:15-12:30 h Setting CIRO video contents

Promoted by: All partners

Subject: Setting the contents of CIRO competition video: a hand draw animation aiming to be explanatory and motivating to engage participation along the students of the schools participating.

Estimated time: 1 hour 15 minutes

12:30-13:30 h General discussion and conclusions

Promoted by: All partners

Subject: To summarize the conclusions of M2 and next activities that should be done by project partners.

Estimated time: 1 hour



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Tracking Project Progress

Activities (A)

A1. GENERAL COORDINATION

A2. DATA RESEARCH:
introducing renewable
energies and energy
storage systems



**A3. FROM PERCEPTION TO
KNOWLEDGE:** training
contents and Moodle
platform



**A4. FROM KNOWLEDGE TO
ENFORCEMENT:** e-learning
tools and pilot tests

A5. DISSEMINATION AND COMMUNICATION OF RESULTS



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Tracking Project Progress

Tracking Project Progress

TIMETABLE																																	
2018					2019												2020												2021				
S O N D J F MA A MY J J A S O N D J					F M A MY J J A S O N D J					F																							
Months	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30			
Project activities																																	
A1																																	
A2																																	
A3																																	
A4																																	
A5																																	
O1																																	
O2																																	
O3																																	
M1																																	
M2																																	
M3																																	
M4																																	
E1																																	
C1																																	
C2																																	



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Tracking Project Progress

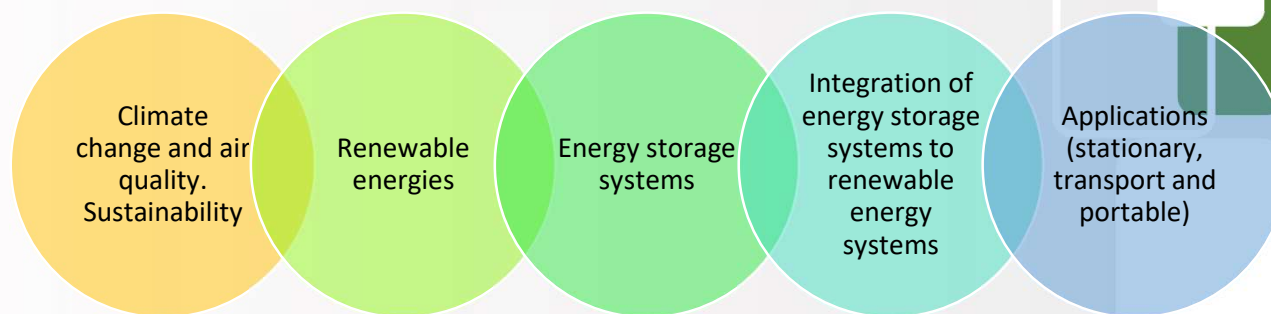
A.3.1 Development of training contents

O1. Definition and development of training contents about the coming European “Green” energy model. All materials developed will be available in a Moodle platform (multimedia, MOOCs, podcasts, educational multimedia: animations, 3D, ebooks,...).

Participants:



Coordinator: **ariema**



MOODLE








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Tracking Project Progress

A.3.1 Development of training contents

- Course guidelines 
- Course notes 
- Module presentations 
- Practical activities 
- Extra materials, references and bibliography 



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Tracking Project Progress

A.3.1 Development of training contents

■ Course guidelines



Sustainability

- Module 2: Renewable Energies
- Module 3: Energy Storage Systems
- Module 4: Integration of Hydrogen with Renewable Energy Systems
- Module 5: Applications of Hydrogen Technologies

Página Principal
Calendario

Module 1: Climate Change and Air Quality - Sustainability

Guidelines

Notes and contents

Course notes module 1

Course notes of module 1 contain detailed information about the issues of the science of climate and weather, the air quality / air pollution, the Greenhouse effect and the role of CO2 in this phenomenon, the climate change and the energy transition and sustainability

Module 2: Renewable Energies

Guidelines

Notes and contents

Course Notes Module 2

Course notes of module 2 contain detailed information about the different forms of renewable energy sources and their differences from the conventional energy sources. Furthermore, the socioeconomic advantages of RES, the necessity of integrating energy storage with renewables, as well as some typical examples of energy storage in autonomous RES systems are also presented.



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Tracking Project Progress

A.3.1 Development of training contents

■ Practical activities

Deadline: 24-01-2020

Module	Activity	Description	Partner
1	CO2 footprint calculation	Use consumption data from internet to calculate house and your footprint per month for your country and Get use to CO2	CRES
1	What's your footprint?		
1	Climate connection diagram.	Enlarge with pe	
1	Debate non-renewable/renewable	Who wins?	

Please, add the following text in all documents!!

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Partners will translate the practical activities to the developing other languages (Spanish, German or Greek)

Deadline: 24-01-2020



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Tracking Project Progress

A.3.1 Development of training contents

- Practical activities

Module	Activity	Short description	Partner
1	The Chemistry of Climate Change. Everybody is talking about carbon dioxide – but where does it come from?	Understand that the burning of most materials results in carbon dioxide and water.	Heriburg-Gymnasium
1	Test your student's knowledge	Task 1: Lab report for the combustion of pentene. Task 2: Indonesian Fires Cause Problems in Southeast Asia.	Heriburg-Gymnasium
1	Homework: Reading about the burning Amazon	Learn about the burning Amazon and about Brazilian politics. Improve vocabulary.	Heriburg-Gymnasium
1	TED talk by Greta Thunberg Listening activity	Listening activity to improve language skills .	Heriburg-Gymnasium

Partners will translate the practical activities they are developing to other languages (Spanish, German or Greek) **Deadline: 30-01-2020**



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Tracking Project Progress

A.3.1 Development of training contents

■ Practical activities

Deadline: 30-01-2020

Module	Activity	Short description	Partner
2	Solar energy oven	Build your own solar oven basing on a carton box	CRES ✓
2	Solar energy kit	Exercise to practice with a solar energy didactic kit (house)	CRES
2	Parts of wind turbine	Recognize the different parts that a wind turbine is consisted of	CRES ✓
2	Wind energy experiment	Experiment or video to show the movement of air masses	IES Diego de Guzmán
2	Build your own system	Group activity: Each group of students will build its own renewable energy system and explain it. Explanation will be recorded, and video results will be uploaded in e-twinning.	Heriburg-Gymnasium
2	Solar water heater	Solar water heater and PV toys experiments	Colegio Jesús Nazareno
3	Variation of energy production by different renewable sources	Check how renewable energy production discharged into electricity grid varies during day hours. Explain the reason of the variability. For Spain, use link : https://demanda.ree.es/visiona/peninsula/demanda/total	ARIEMA
3	Video	Make your own video/ animation explaining H2 production	ARIEMA ✓
3	Hydrogen storage volume	Calculation exercise to estimate hydrogen storage volumen at different conditions	ARIEMA ✓
3	Interview	Get in touch with companies to compile prices, and products details that may compose a hydrogen production and storage system.	ARIEMA ✓

Partners will translate the practical activities they are developing to other languages (Spanish, German or Greek)

Deadline: 30-01-2020

A.3.1 Development of training contents

Deadline: 10-02-2020

■ Practical activities

Module	Activity	Short description	Partner
4	Electrolysis model to build	Build a model to show the process of electrolysis (balls, ventilator, membrane, etc).	Heriburg-Gymnasium
4	H2 didactic kits	Exercise to practice with a hydrogen didactic kit (car)	ARIEMA ✓
4	Burn H2	Experiment: fill balloon of hydrogen and burn it.	Heriburg-Gymnasium
4	Dimensioning H2 system	Dimension exercise to define the hydrogen energy needed depending on final applications.	ARIEMA ✓
5	H2 blended into natural gas grid exercise	Calculate how much CO2 emissions are avoided by blending hydrogen into the natural gas grid. Data from EU demand (large units), and data for your own house natural gas consumption (short units)	ARIEMA ✓
5	How much do you have to wait to refuel your car?	Exercise comparing the time of wait from a FCEV and a BEV	ARIEMA ✓
5	Efficiency and autonomy exercise	Calculate the efficiency of your car, range and how much time could your house get electricity with no grid connection but from FC.	ARIEMA ✓
5	Applications of hydrogen debate	Divide the class into groups of 4. They will have to make a brainstorming about hydrogen applications that come to their minds and present them to the rest of the groups.	ARIEMA ✓

Partners will translate the practical activities they are developing to other languages (Spanish, German or Greek)

Deadline: 10-02-2020



Tracking Project Progress

Activities (A)

A4. FROM KNOWLEDGE TO ENFORCEMENT: e-learning tools and pilot tests

A.4.1 Develop a game as a tablet app (ipad & android)



O2. Build your sustainable city. Web/mobile didactic application as training methodology of sustainable energy concepts, particularly renewable energy systems, hydrogen as energy storage method and fuel cells.



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Tracking Project Progress

Activities (A)

A4. FROM KNOWLEDGE TO ENFORCEMENT: e-learning tools and pilot tests

Coordinator:



Participants: **ariema**



02.

A.4.2 Develop didactic kits



ariema



One teacher of each school centre supports this activity.
The game developed in A.4.1 includes a module explaining how to develop and manage these kits.



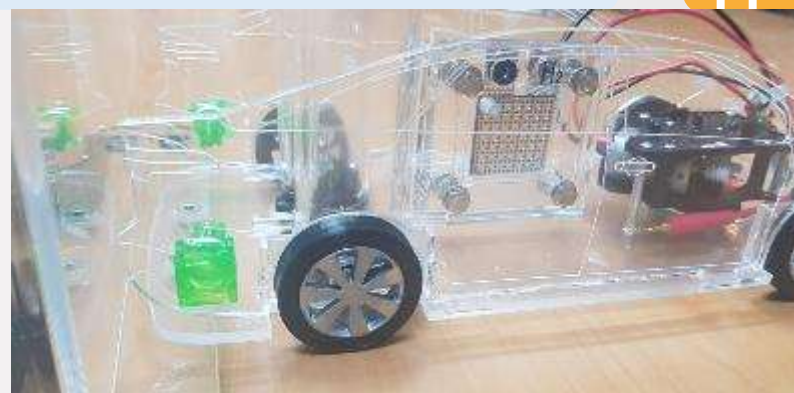
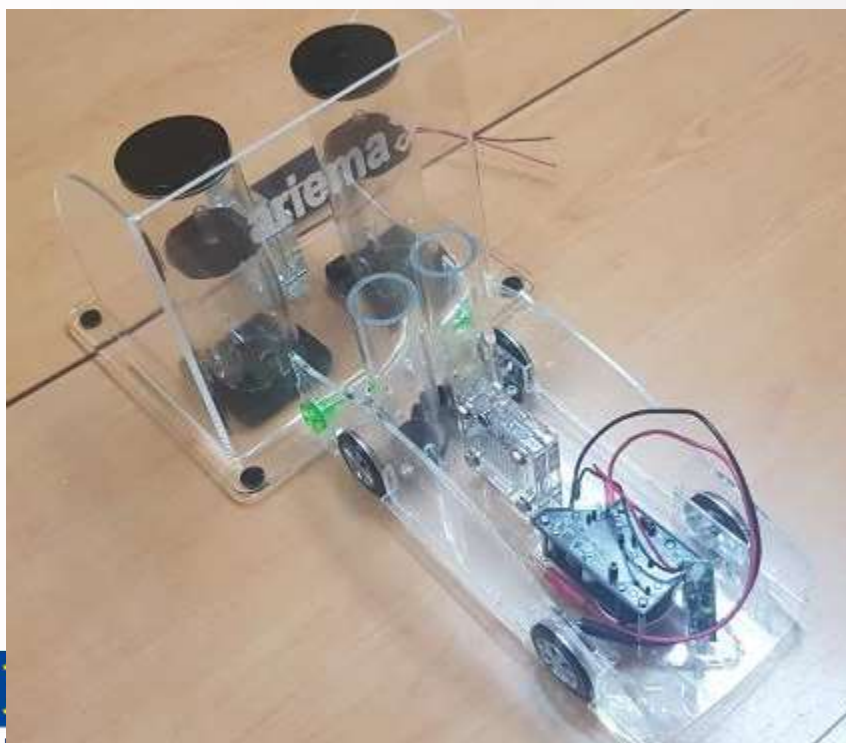
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Activities (A)

A4. FROM KNOWLEDGE TO ENFORCEMENT: e-learning tools and pilot tests

A.4.2 Develop didactic kits





Tracking Project Progress

Activities (A)

A4. FROM KNOWLEDGE TO ENFORCEMENT: e-learning tools and pilot tests

A.4.2 Develop didactic kits



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Tracking Project Progress

Activities (A)

A4. FROM KNOWLEDGE TO ENFORCEMENT: e-learning tools and pilot tests

Progress teaching Ciro concepts in class



HERIBURG
GYMNASIUM
COESFELD



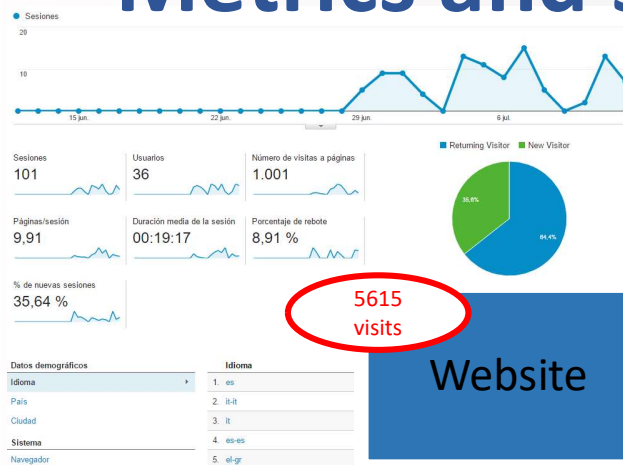
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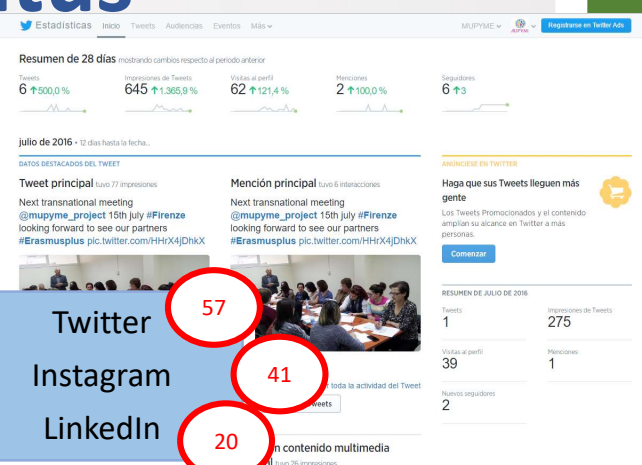
Tracking Project Progress

Communication. Metrics and status



5615
visits

Website



57

Twitter

Instagram

LinkedIn

41

20

Press Release

3

Events

38 informative publications and media appearances

- 10 in different newspapers,
- 5 publications and / or interviews on the radio/ tv
- 24 news on the internet



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Communication. Metrics and status



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Introducing the importance of
the coming European "green" energy
model in School Education

LOGO



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Tracking Project Progress

Communication. Metrics and status

Press Room

Press Clipping

 ciroproject Published on the 22nd of October 2019	 ciroproject Published on the March 8th, 2019	 ciroproject Published on the January, 18th 2019
 inewsggr.com Published on the 20th of February 2019	 energypres.gr Published on the 20th of February 2019	 b2green.gr Published on the 20th of February 2019
 energia.gr Published on the 20th of February 2019	 20minutos.es Published on the 12th of February 2019	 huelvainformacion.es Published on the 2nd of February 2019



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Communication. Metrics and status

EXTERNAL EXPERTS PANEL

- Experts in hydrogen and fuel cells technologies
- From 4 different countries
- No budget
- Tasks:
 - Memorandum of understanding (MOU) ARIEMA
 - Preview documentation
 - Advise/validate Ciro Project tools
 - Disseminate project
 - Visibility as experts (website)



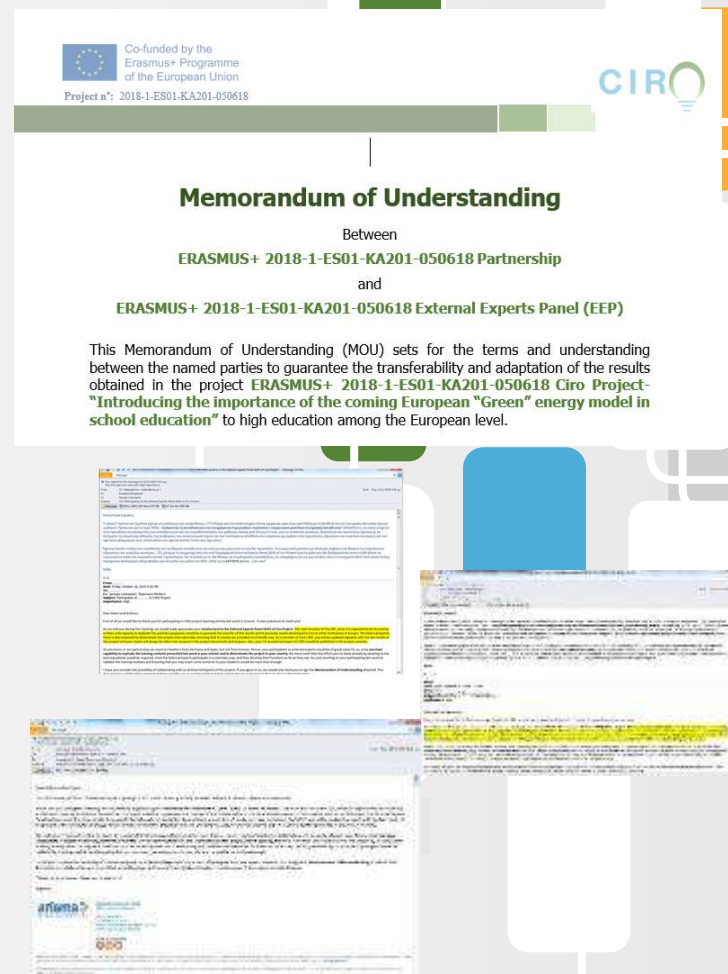


Tracking Project Progress

Communication. Metrics and status

EXTERNAL EXPERTS PANEL

- Spanos Andreas – 5th senior High school of Nea Ionia
- Chavela Helen - 5th senior High school of Nea Ionia
- Dra. Francisca Segura - Universidad de Huelva
- Kiriakos Panopoulos – CERTH (Centre for Research and Technology)
- Dr. Lympelopoulos Nikolaos - Fuel Cells and Hydrogen Joint Undertaking (FCH JU)





Tracking Project Progress

Communication. Metrics and status

E-TWINNING



HOME

CIRO: THINK GREEN, CARE YOUR HERITAGE!

The main aim of this project is to share and compile the advances of our ERASMUS + CIRO. For that reason, the three schools working on the project will be also using twinspace as a way to spread the environmental education that we are developing in our lessons thanks to what we are researching and learning with the enterprises also included in CIRO. With this goal, we will be developing the e-twinning in different phases that will be hand by hand with the process and advances of our CIRO project. Therefore, key words such as Europe Think green, hydrogen, Natural resources, renewable energies, sustainability, recycling, reducing, reusing... will be essential on our etwinning project.

Latest updates



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Tracking Project Progress

Communication. Reporting

The data collected in relation to all elements described in section: **Work distribution** above will be collated and briefly reported to the project team meetings.

ARIEMA, as work package leader for dissemination, should be informed of all activities to feed them into the activity recording and updated communications plans.





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Timetable

	2020		2021
January	Second meeting (M2)	e-learning tools (A4.1, A4.2) - O2	Follow up activity A.4.3.3. - O3
February	Interim Report		
March			Ending of the eligible costs period
April			
May			Final report
June	Third meeting (M3)	Learning activity C2	CIRO competition - O3
July			
August			
September			
October			
November			
December	Fourth meeting (M4)	Multiplier event E1	

Game, didactic kits,
practical activities

Finished before the
Interim report!

Competition CIRO



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Timetable and next steps

Comments monitoring visit

- Inclusive measures in the selection of participating students.
- Facilitate information about the methodology they follow in classes.
- Translate the practical activities to other languages, if possible.
- Impact that CIRO is reaching in your entities and cities.
- Obtain the Europass at the end of CIRO competition.



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Deadline: 06-02-2020



Timetable and next steps

Activities (A)

A4. FROM KNOWLEDGE TO ENFORCEMENT: e-learning tools and pilot tests

Coordinator:



Participants: **ariema**



A4.3. Develop CIRO competition

O3. CIRO Competition. Teachers and participants will set up a team for the development of an innovative project based on reducing climate change and enhancing air quality in their city.

Debate about Cirol competition progress and rules on Friday January 17th!



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Timetable and next steps

A4. FROM KNOWLEDGE TO ENFORCEMENT: e-learning tools and pilot tests

A4.3. Develop CIRO competition

C2. Ciro competition

Training activity (C2) - 22nd-24th June 2020			
	22	23	24
	Monday	Tuesday	Wednesday
09:00 - 10:00		09:00 - 9:30 Group 4 Presentation	09:00 - 11:00 Final debate
		9:30 - 10:00 Group 5 Presentation	
10:00 - 11:00		10:00 - 10:30 Group 6 Presentation	
		Break	
11:00 - 12:00		11:00 - 12:00 Soft skills (2)	Coffee break
12:00 - 13:00		12:00-13:00 Soft Skills (3)	12:00-13:00 Winners Announced and Closing Ceremony
13:00 - 14:00		Lunch time	Lunch time
14:00 - 15:00	14:00-15:00 Open Ceremony and Welcome to Final Ciro Competition	14:30 - 17:00 Develop your commercialization plan Workshop	Extra activity
15:00 - 16:00	15:00 - 15:30 Group 1 Presentation		
	15:30 - 16:00 Group 2 Presentation		
16:00 - 17:00	16:00 - 16:15 Break	Extra activity - time to dinner	
	16:15 - 16:45 Group 3 Presentation		
17:00-18:00	16:45 - 18:00 Soft skills (1)		
18:00-20:00	Extra activity - time to dinner		



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Timetable and next steps

Transnational Meetings (M)



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Timetable and next steps

Multiplier Events (E)

E1 Spain Event in Madrid – December 2020

- Forecast:
 - ✓ 100 locals
 - ✓ 40 foreign participants
- Wrap-up event
- International participation

Contact international educational organizations, especially in Madrid. These organizations can disseminate the event and might be interested in attending.

Prepare a database of organizations with potential interest in Ciro Project.

Deadline: M3



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Interim Report

4. Project Management and Implementation

this section asks for information about the state of play of the project

Please provide an overall state of play of your project: what are the achievements of the project at this stage? Are the initial project activities and objectives being carried out and reached so far?

value required

Please describe further in details the project activities supported by the grant for Project Management and Implementation that have been carried out until now.

value required

How is the monitoring of the project being carried out so far and by whom?

value required

How did the project partners contribute to the project so far? Has the distribution of tasks been adjusted since the application stage?

value required

If your project involves other organisations, not formally participating in the project, please briefly describe their involvement.

If relevant, please describe any difficulties you have encountered until now in managing the implementation of the project and how you and your partners handle them.



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Interim Report

9. Follow-up

9.1. Impact

What has been the project's impact so far on the participants, participating organisations, target groups and other relevant stakeholders?

value required

9.2. Dissemination and Use of Projects' Results

In case already applicable, to whom did you disseminate the project results inside and outside your partnership so far? Please define in particular your targeted audience(s) at local/regional/national/EU level/international and explain your choices.



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Interim Report

To do list:

Deadline: 6th February

- Send your timesheets signed until 31th January.
- Send your tickets of Coesfeld's meeting.
- Compilation of your media appearances and your contacts with other entities / public bodies regarding the Ciro Project.
- Send your comments to the Interim Report.
- Send your comments to answer the recommendations of the monitoring visit.



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THANK YOU FOR PARTICIPATING
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We will inspire to the
future scientists



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