



Communication, dissemination and exploitation of the results

Mr. Jorge Sotelo & Julio Marchamalo
ERA-MIN 2 & 3 Dissemination & Communication Office



ERA-Min 2Final Conference and Final review of Call 2017 projects, 18-19 November 2021, ONLINE



Communication & Dissemination related to ERA-MIN 2



Main channels



https://www.era-min.eu/



@eranetmin3



https://www.linkedin.co m/in/era-min/



https://www.youtube.co m/channel/UCe8yYzZn RF8KIQUquo6FxSg/fea tured

Co-funded by the Horizon 2020 programme of the European Union

Documents (I)

https://www.era-min.eu/publications

Posters

ERA-MIN: A DECADE SINCE THE INCEPTION OF THE EU LED EFFORT TO SUPPORT THE INTERNATIONAL RAW MATERIALS **RESEARCH COMMUNITY**

ERA-MIN2

ERA-MIN 2 (2016-2022) is on ESIA-MET Columb POP project to-funded under H2020 on "Belearch & Innovation Programme on Rose Materials to Poster Circular Economy"

MIN 2 costs, with **629 million of public**

INTRODUCTION

t Programming Initiatives. The ERA-NET Colund instrument und the substantial call with top-up funding from the Commission, Both ERA-MIN 2 and ERA-MINS correspond to the ERA-NET Calund achieve type, aliming to continue strengthening the mineral raw materials community through the coordination of research and innovation programmes on non-fixed and non-fixed.



ERA-MINS (2020-2025), started officially on 1 December 2020, is a global, innovative and flexible pan ding organisations from IS EU MS countries, 3 EU MS regions, 1 clated country and 2 non-EU countries, supported by EU











ERA-MIN (2011-2015) was an ERA-NET, supp

ESIA-MIN consortium consisted in **15 EU countries** and two non-EU countries (Argentina and South

ARKO)
Three JTCs were Isunched under EBA-NET EBAMAIN Born 2011 to 2015, one per year. A stati of 19
multidisciplinary projects were funded under
one three JTC, with a public funding of 411

THE EU RAW MATERIALS POLICY CONTEXT





RESEARCH & INNOVATION PROGRAMME ON RAW MATERIALS TO FOSTER CIRCULAR ECONOMY

IE SUSTAINABLE DEVELOPMENT RCULAR ECONOMY

- Secure the sustainable and responsible industrial supply of raw materials
- World-wide coordinated funding of demand-driven research on ores.
- Implement 3 Joint Calls for transnational projects (2017, 2018 and 2019)

ERA-MIN JOINT CALLS 2017 & 2018 RESULTS

	CALL 2017	CALL 2018
SUBMITTED PROPOSALS	94	51
APPLICANTS	493	280
ENTERPRISES	27%	22.1%
FUNDED PROJECTS	16	12
CALL SUCESS RATE	17%	23,5%
TOTAL COSTS	16 MILLION	12.7 MILLION
REQUESTED FUNDING	12.3 MILLION	8.8 MILLION

JOINT CALL 2019



ETI, the new Partnerships eturn of the	EU CD UNT RIES, RE GIONS	Andaluzia region Brusse's region Randers region Wallonia region	Czech Republic Finland France Greece	
2007 2020 to	MON-EU COUNTRIES	Chile	Québecstate	
Portnerships sctor will toke		IMPORTA	NT DATES	
s for the first	Novem	ber 28, 2019 - Calf	or proposals opens	

March 12, 2020 - Call for proposals ends April 16, 2020 - Communication to non-eligible applicants June 30, 2020 - Communication of Call results December 1, 2020 - Latest dite for project start

eramin@fct.pt

& INNOVATION PROGRAMME RAW MATERIALS CIRCULAR ECONOMY

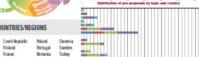
"Reduce the fragmentation of R&I funding across Europe and globally through the implementation of 3 Joint Calls for transnational R&I proposals in 2017, 2018 and 2019, open to participation of

"The ERA-MIN joint calls support needs-driven provide access to leading knowledge and new markets across Europe and world-wide.





South Africa



munication to project coordinators

Acide servicing services



Flyers

HOW CAN YOU GET INVOLVED



DECEMBER 2019 Launch of the third ERA-MIN Joint Call for international R&I projects

industry, NGO/ UPCOMING SCHEDULE

Communication to project coordinators of proposals selected

Launch of the second joint call for R&I international projects DECEMBER 2019 Launch of the third joint call for R&I international projects

HOW CAN YOU GET INVOLVED

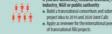
ERA·MIN2

ERA·MIN2





HOW CAN YOU GET INVOLVED



industry, NGO or public authority

of transnational R&I projects

If you are a national or regional Research Funding Organisation (Agency or Ministry) from Europe or beyond

protects to support the internationalization of your universities, research institutes, SME and/or industry

funded project, industrial association or Liaison with ERA-MIN 2 activities to ensure

FOLLOW US www.era-min.es

HOSCO CHORNESS Mrs. Diss Cardino FCT Products per a Chinese

PARTNERS

ERA·MIN2

PAN-EUROPEAN NETWORK

Documents (II): Newsletters

https://www.era-min.eu/publications

Biannual Newsletters

ERA-MIN NEWSLETTER

April 2021

INTERVIEW TO PROJECT COORDINATORS

compared to national or regional funding schemes. Compared to H2020, the expected consortium size and targeted budget volume make project smaller, easier

Jean Cauzi (Université de Lorraine, France) Coordinator of LIGHTS, funded project of ERA-MIN JTC 2017

2 WHAT WERE THE CRITERIA USED TO CHOOSE THE TRANSMATIONAL

We formed a clear idea of the project tasks and activities and consortium me

4 WHAT HAVE BEEN THE MAIN OBSTACLES FACED WHEN IMPLEMENTING THE TRANSMATIONAL AND TRANSDISCIPLINARY

RA-MIN all 2017

OF FUNDED PROJECTS

based on the 2nd year progress reports of 13 (out of 16) projects ll 2017. They are all ongoing projects.

the 1st and 2nd year reports are available at: https://www.era-

s involved

114 Pho Q 50%

Q 42%

ation

Dissemination Activities @00000

publications scientific meetings esulted from the and conferences funded projects Open Access 53%

Of the projects use

social networks as a

Of the projects have a Project website

part of them have applied to l calls

ers to events/networking

proached by companies or



A-MIN 2 Newsletter - May 2020

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TION PROGRAMME ON RAW MATERIALS TER CIRCULAR ECONOMY

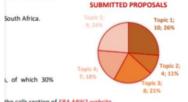
mplement a European-wide coordination of research & innovation on-energy, non-agricultural raw materials (construction, industrial & petitiveness and shift to a circular economy. With this aim, ERA-MIN ve transnational R&I projects between 2017 & 2019 in line with the e & the Strategic Implementation Plan of the European Innovation Economy Package as well as the ERA-MIN Research Agenda. Based upported by the EC Horizon 2020 since 2016 for 5 years.

aterials for sustainable development and the

2th March 2020 and the evaluation results are expected by June 2020. ressing all aspects of the non-energy non-agricultural raw materials y resources under a circular economy approach.

call, from the following Countries:

ium-Flanders; Belgium-Wallonia; Czech Republic, Finland; France; lovenia; Sweden.



the calls section of ERA-MIN2 website.

Organisations allocated national/regional budgets for this Joint call with a total public funding of € 8.8 million and total costs of € 12.7 ir in these projects was of 28%. The R&I projects have started in late

ERA-MIN 2 Newsletter - July 2019

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ATION PROGRAMME ON RAW MATERIALS STER CIRCULAR ECONOMY

sed on the FRA-NFT Cofund scheme supported by Furnnean Commission's to implement a European-wide coordination of research and innovation he industry competitiveness and the shift to a circular economy.

and strengthen the coordination of research and innovation programmes, ergy, non-agricultural raw materials (construction, industrial and metallic EU Raw Materials Initiative and the Strategic Implementation Plan of the erials. With this aim, ERA-MIN 2 will implement 3 joint calls for collaborative

ts are funded under ERA-MIN Joint Call sted public funding of € 8.8 million

nmended for funding by the Call Steering Committee, involving 61 lion of public funds and with total costs of €12.7 million.

in-EU countries/regions have committed €14.5 million for the joint call in all aspects of the non-energy non-agricultural raw materials (ores, le, covering both primary and secondary resources and substitution of y approach

ition and mining

acturing

n this topic were expected to propose non-technological innovations

lata for environmental impact assessment, ublic perception of raw materials.

tober 2018 until 31st January 2019. 51 proposals were submitted and national eligibility check before the independent assessment by the s composed of international experts in the field. The results were ERA-MIN 2 Newsletter - April 2019



TION PROGRAMME ON RAW MATERIALS. TER CIRCULAR ECONOMY

d on the ERA-NET Cofund scheme supported by European Commission's implement a European-wide coordination of research and innovation industry competitiveness and the shift to a circular economy.

and strengthen the coordination of research and innovation programmes, ay, non-paricultural raw materials (construction, industrial and metallic EU Raw Materials Initiative and the Strategic Implementation Plan of the rials. With this aim, ERA-MIN 2 has the goal to implement 3 joint calls for

ted to the ERA-MIN Joint Call 2018

ted by the deadline, involving 280 applicants of which 62 enterprises funds and with a total cost of €49 million.

fing organisations from EU and non-EU countries/regions, the one-step ber 2018 until 31st January 2019 and was focused on needs-driven R&I tural raw materials (ores, construction, industrial minerals) life cycle, rces and substitution of critical raw materials in a circular economy call were:

and mining

this topic were expected to propose non-technological innovations

or environmental impact assessment, perception of raw materials

o a general and a regional/national eligibility before the independent , which will be composed of international experts in the field. The Call cts will receive funding based on the ranking list and the available ected to be sent to the proposal coordinators in May 2019.



and their publishable abstracts are available on the results section of ERA dilable at www.era-min.eu/joint-call/era-min-joint-call-2018

Events (I)

Chamada Pública conjunta ERA-MIN 2017



Logo ERA-MIN 2

ERA-MIN 2 KICK-OFF



The ERA-MIN 2 launch event was held in Brussels on the 1st December 2016 to kick-off the ERA-MIN 2 activities, with particular emphasis on the upcoming Joint Call for transnational R&I projects on the 1st February 2017 with a total budget of 15 million Euro. More than 50 representatives of ministries, funding organisations, research and industry from EU and non-EU countries and the European Commission, have participated in a networking cocktail to welcome the official start of ERA-MIN 2.

ERA-MIN 2 SEMINAR AT FINEP (BRAZIL) ON 14TH **MARCH 2017**







On 14th March 2017, the ERA-MIN 2 seminar was held by Finep (Brazil). The Workshop was opened at 9.30 a.m. by the Director of Innovation of Finep, Márcio Girão. The ERA-MIN 2 project was presented during this seminar by Ms. Dina Carrilho, ERA-MIN 2 Coordinator. The presentation of ERA-MIN 2 can be found in section Publications on ERA-MIN 2 webpage. The Workshop was broadcasted only in Portuguese and the video is available on YouTube.

ERA-MIN 2 Joint Call 2017 - Webinar on 30th March 2017







The Webinar on ERA-MIN Joint Call 2017 will take place on 30th March at 12:00 (Lisbon time) for one hour, to provide information of the topics and detailed explanations on the submission, evaluation, selection and funding procedures.

Read more

https://www.era-min.eu/all-events



ERA-MIN 2 Calls presented at the Horizon 2020 Societal Challenge 5 Infoday on 9th November





The coordinator of ERA-MIN 2, Ms Dina Carrilho, made a presentation of the ERA-MIN 2 project in the 2017 InfoDay and brokerage event held in Brussels on 9th November 2017. The presentation was focused on three parts: the ERA-MIN 2 network, the first results of the cofunded call and the future calls of the project

Read more



Presentation of ERA-MIN 2 in the METS 2018





On 11th April 2018, the ERA-MIN 2 project was presented by the Ministry of Economy, Industry and Competitiveness of Spain during the Workshop 6: RTD and Innovation.

Read more



ERA-MIN 2 at the EIP Raw Materials Annual Conference during the Raw Materials Week 2017

20/12/2017





Read more



ERA-MIN 2 was presented at the REMIX "Smart and Green Mining Regions of EU" Conference

22/06/2018







Read more

Events (II)



ERA-MIN 2 presented at the 2018 PDAC Convention



The ERA-MIN 2 project was disseminated at PDAC 2018 Convention.

Read more

https://www.era-min.eu/all-events



ERA-MIN 2 presented at the Raw Materials Week 2018





The ERA-MIN 2 coordinator, Ms Dina Carrilho, presented the ERA-MIN Joint Call 2018 during the Horizon 2020 Raw Materials Information and Brokerage Event session on 13 November afternoon. Read more

ERA-MIN 2 project outcomes were disseminated to ETP-SMR







Read more

ERA-MIN session at the Horizon 2020 Technology Success Stories



The event took place on 18th November 2019 in Brussels, in the context of the Raw Materials Week.

It was a perfect opportunity for meeting 9 of the ERA-MIN funded projects, which presented their success stories and the coordinators that lead the international research teams.



ERA-MIN Joint Call 2018 presented at 2018 InfoDays H2020 SC5







The ERA-MIN 2 coordinator, Ms. Dina Carrilho, announced the launch of the ERA-MIN Joint Call 2018 in the 2018 InfoDays H2020 Societal Challenge 5

Read more



Meet ERA-MIN 2 at PDAC 2019





The latest research funded projects by ERA-MIN 2 and the future ERA-MIN joint calls for proposals to which companies could apply will be presented.

Read more



ERA-MIN brokerage event organised by ADEME and ANR







The ERA-MIN Joint Call 2018 was presented in the seminar held in Paris on 28 September.

Read more



ERA-MIN 2 at EuroNanoForum 2019

03/06/2019







Read more

Events (III)

https://www.era-min.eu/all-events



ERA-MIN Joint Call 2019 announced at EU Raw Materials Week 2019





Read more



ERA-MIN AT THE EUROPEAN MINING CONVENTION 2020 -**VIRTUAL EDITION**



y f in

Read more



ERA-MIN2 goes to PDAC 2020



Read more



ERA-MIN Poster at LCM2021







ERA-MIN 2 & 3 at PDAC 2021

12/03/2021





Read more

RawMat2021 International Conference on Raw Materials and Circular Economy Athens I 05-09 September 2021 RawMat 2021

ATHENS, GREECE

05/09/2021 - 09:00 TO 09/09/2021 - 18:00

Call results

https://www.era-min.eu/results



List of funded projects, Call statistics and publishable abstracts



2.1 STATISTICS OF SUBMITTED PROPOSALS

The Joint Call was a one-stage submission process and resulted in the submission of 38 proposals. After an eligibility check for compliance with both ERA-MIN 2 rules and national/regional regulations, 29 proposals were selected and sent to a centralised independent international scientific assessment, the Scientific Evaluation Board (SEB).

The submitted 38 proposals involved 203 applicants, of which 56 were enterprises (28%), requesting around C24 million of total public funds and total costs of C32 million (Figure 2). In the following graphs the different types of organisations applying in the call have been grouped into Academia (universities and research organisations). Enterprises and Other (including consultants and non-profit organisations).

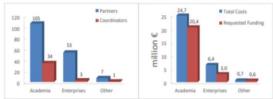
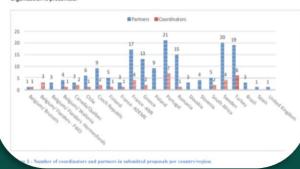


Figure 2. Number of coordinators and partners, total costs and requested funding by type of organisation: academia, enterprises and other for all submitted annications.

In Figure 3, the distribution of the applicants (coordinators and partners) by country or region/funding organisation is presented.

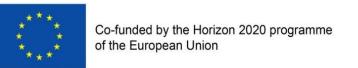


ERA-MINZ RECURS A RECURS PROCESSOR ON SING MICHIELE RECURS A RECURS DECEMBER ON SING MICHIELE

ct acronym	NEXT-LIB
roject title	Novel Circular Economic Approaches for Efficient Extraction of Valuables from Spend Li-lon Batteries
Main topic	Recycling and Re-use of End-of-Life products
Sub-topics	4.2 End-of-life products pre-processing: pre-treatment, dismantling, sorting,
	characterisation
	4.3 Recovery of raw materials from End-of-life products
Keywords	Spent LiBs, Valuable Metals, Graphite Separation, Li Recovery, Recycling
Publishable	The existing dominating technology applied in Europe is the Umicore process which is
abstract	simple and efficient with main focus on recovery the high value metals like Co, Ni and Cu.
	The other critic materials like lithium and graphite are lost. Lithium is diluted in a slag
	phase while graphite and electrolyte are burnt to hazardous gases. The dominating
	technology applied in China consists of shredding, thermal processing for removal of
	electrolyte and binders followed by leaching processes. In both cases, the graphite is not
	just lost it also causes to major difficulties for the subsequent metal recovery processes.
	Shredding of LiB is another major challenging. Though a number of technologies are used
	in commercial scale, they are often slow or have to be operated under a carefully
	arranged inert system (like liquid N2 cooling, shredding in water etc) in order to minimize
	the fire risk due to high content of flammable electrolyte in the LiBs. The NEXT-LIB project
	has the intention to develop a number of new technologies to meet the challenges
	addressed above which will enable safe shredding operation, possible electrolyte
	recovery, graphite recovery and Li-enrichment by pyrometallurgical approaches etc. The
	project aims for developing technologies for an over 20% increased overall recovery
	efficiency comparing to the current processes. The project will be realized via a cross-
	discipline approach with experts in material characterization, mineral processing, pyro-
	and hydrometallurgy, sustainability analysis, from leading universities, research
	institutes, SME, major battery recycler and metal producer located in Sweden, Finland,
	France, Italy and Portugal.
	The project has an economic potential of at least 1 billion €, thereby a possibility to create >2000 jobs for the EU and an energy saving potential of >1000 GWh on a global
	perspective.
rticipating	Swerim AB (Sweden)
anisations	Luleå University of Technology (Sweden)
anisations	Extracthive (France)
	INSTM-RU University Mediterranea of Reggio Calabria (Italy)
	Geological Survey of Finland (GTK) (Finland)
	CEA (France)
	uRecycle Battery Materials Oy Filial i Sverige (Sweden)
	Faculdade de Ciências da Universidade do Porto (Portugal)
	Boliden (Finland)

Main call topic	Sub-topic areas	Project acronym/ abstract	Project title	Coordinator (partner 1) and consortium partners	Participanting countries - Funding organisations	Duration	Total Costs	Total Requested Funding
	1.1: AMTEG Exploration ENAMIN 2 Prosects' a sharrae		Gradiometer	1. Supracon AG	Germany - BMBF/PtJ	36 months (2018 -2021)	1 366 733 €	952 149 €
				Nordika Geophysics	Sweden - Vinnova			
				Leibniz Institute of Photonic Technology	Germany - BMBF/PtJ			
		Projects's abstracts		Ingenieur-Gesellschaft für Interfaces mbH	Germany - BMBF/PtJ			
				5. Geognosia S.L.	Spain - CDTI			
				6. Nordic Iron Ore AB	Sweden - Vinnova			
	1.1: Gold_Insight Exploration Final Example Projects's abstracts		Tracing Gold-Copper- Zinc with advanced	1. Trinity College Dublin	Ireland - GSI	24 months	727 550 €	484 550 €
				2. Luleå University of Technology	Sweden - Vinnova			
1.Supply of		microanalysis	Swedish Museum of Natural History	Sweden - Vinnova	(2018-2020)	727 550 €	404 330 €	
raw materials from	1.1: LIGHTS Exploration Froiects's abstracts			1. Université de Lorraine	France - ANR			
exploration and mining		Lightweight Integrated Ground and Airborne Hyperspectral Topological Solution	Faculty of Sciences - University of Porto	Portugal - FCT	36 months (2018 -2021)	1 547 140 €	1 189 919 €	
and mining			3. Laboratoire de Géologie de Lyon - Université Lyon 1	France - ANR				
			Helmholtz-Zentrum Potsdam - Deutsches GeoForschungsZentrum	Germany - BMBF/PtJ				
				5. Beak Consultants GmbH	Germany - BMBF/PtJ			
	and Water consumption of	Reduction of Energy and Water	Fraunhofer Gesellschaft	Germany - BMBF/PtJ	36 months (2018 -2021)	714 840 €	608 340 €	
		consumption of	2. University of Chile	Chile - CONICYT				
	operations	fusion of sorting 5. Lulea technologies LIBS and	3. Luleå University of Technology	Sweden - Vinnova				
			4. SECOPTA analytics GmbH	Germany - BMBF/PtJ				
			INE-XILL	4. SECOPTA analytics GmbH	Germany - Biology			

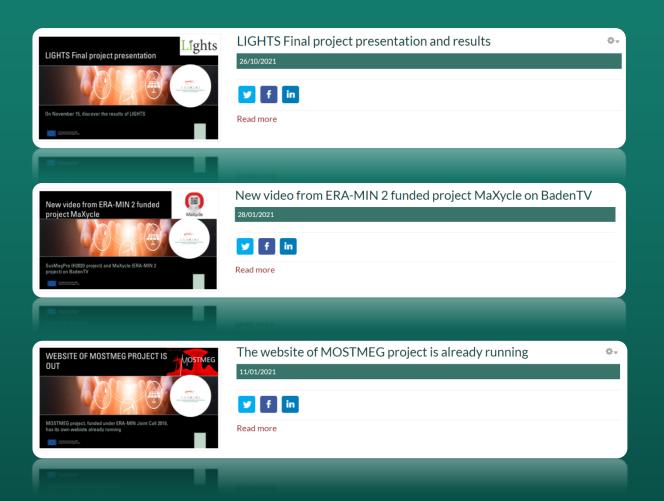




Communication & Dissemination related to the Funded Projects



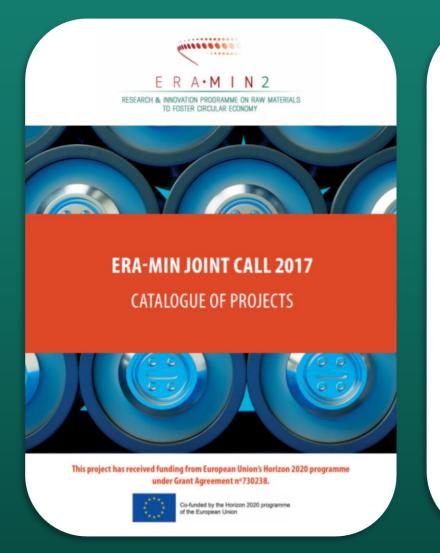
Results of the funded projects (I)





28 Video Testimonials of the ERA-MIN & ERA-MIN 2 funded projects present a good overview about what has been funded under ERA-MIN Calls on Raw Materials (ERA-MIN) and their contribution for the development of the non-energy, non-agricultural mineral raw materials Research Area across Europe and globally.

Results of the funded projects (II)





EU co-funded ERA-MIN Joint Call 2017

First year Project reports
Publishable summaries

https://www.era-min.eu/results



EU co-funded ERA-MIN Joint Call 2017

Second year project progress reports
Publishable summaries

September 2020

Dissemination of project results at events



ERA-MIN funded projects present at the Horizon 2020 Technology Success Stories







Read more



Launch Event for the EU Co-funded ERA-MIN Joint Call 2021







Read more



ERA-MIN 2 Presentation on the event Ecomondo

28/10/2021







ERA-MIN AT SUMEX CLUSTERING WORKSHOP

15/06/2021







SUMEX project Clustering Workshop is taking place from 15 to 16 June 2021.

We are glad to share with you that today 15 June from 10:00-11:30 (CEST) the ERA-MIN projects session will be taking place.

The session will count with an **introductory presentation** by ERA-MIN 3 ERA-NET Cofund Coordinator **Dina** Carrilho, followed by some interesting presentations of good practices on sustainability in the extractive industry by project coordinators and/or WP leaders from 4 ERA-MIN funded projects:

- Alexandre Lima and Ana Claudia Moreira Teodoro from LIGHTS project, funded under ERA-MIN Joint Call 2017
- Nicolas Kalogerakis and Georgios Kolliopoulos from nanoBT project, funded under ERA-MIN Joint Call 2019
- Lina Hällström from ReminE project, funded under ERA-MIN Joint Call 2015
- Paula Morais and Rita Branco from REVIVING project, funded under ERA-MIN Joint Call 2019



ERA-MIN 2 Final Conference and Final Seminar of Call 2017 projects

https://www.era-min.eu/event/era-min-2-final-conference-and-final-seminar-call-2017-projects

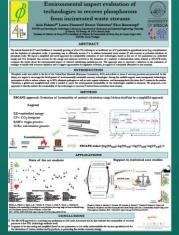


- The <u>ERA-MIN 2 Final Conference</u> will show the achievements after 5 years bridging with the recent successor pan-European network on raw materials ERA-MIN3 (2020-2025).
- The <u>Final Seminar of Call 2017 projects</u> will gather all the funded projects
 representatives from the ERA-MIN 2 Research
 Programme to disseminate their project results to stakeholders and promote the uptake of project results by end-users, civil society or policymakers

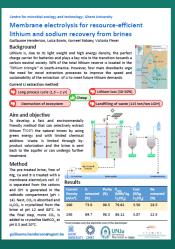


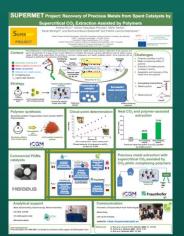
Poster Competition

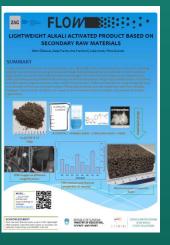
https://www.era-min.eu/event/era-min-2-final-conference-and-final-seminar-call-2017-projects

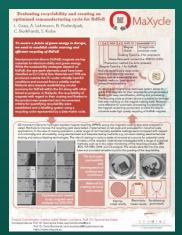


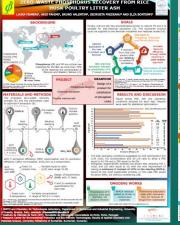


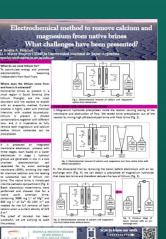


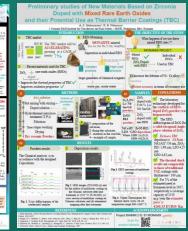


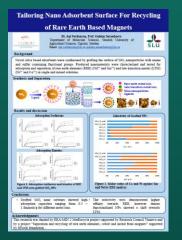














Thank you for your attendance / Muchas gracias por su atención

Mr. Jorge Sotelo & Julio Marchamalo

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