



ERA-MIN 2

RESEARCH & INNOVATION PROGRAMME ON RAW MATERIALS
TO FOSTER CIRCULAR ECONOMY

Acronym: ERA-MIN 2

Title: Implement a European-wide coordination of research and innovation programs on raw materials to strengthen the industry competitiveness and the shift to a circular economy

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Report on cooperation with EU initiatives and projects

WP 6: Strengthening the raw materials research community

Task 6.1: Cooperation with European RTD community, including related initiatives, EU projects, platforms.

Co-Task Leader: MINCYT and GSI

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Author(s): Diego Galeano and Alejandra Davidziuk (MINCYT), Dina Carrilho (FCT) and Aoife Braiden (GSI)

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ERA-MIN 2 comprises a progressive, pan-European network of 21 public research funding organisations from 17 countries/regions (Argentina, Belgium-Flanders, Brazil, Chile, Finland, France, Germany, Ireland, Italy, Poland, Portugal, Romania, Slovenia, South Africa, Spain, Spain-Castilla y León, Sweden and Turkey).

Built on the experience of the Seventh Framework Programme EU funded project ERA-MIN (2011-2015), Horizon 2020 **ERA-MIN 2** aims to enhance and strengthen the coordination of research and innovation programmes in the field of non-energy, non-agricultural raw materials (construction, industrial and metallic minerals) to support the European Innovation Partnership on Raw Materials, the EU Raw Materials Initiative and further develop the raw materials sector, in Europe and globally, through funding of transnational research and innovation (R&I) activities.

ERA-MIN 2 supports demand driven research on primary and secondary resources, and substitution of critical raw materials under a circular economy approach, to give the opportunity to the R&I community to apply to world-wide coordinated funding, gaining access to leading knowledge and new markets, while reducing fragmentation of R&I funding across Europe and globally. This is achieved through one EU co-funded call for R&I proposals in 2017 and two additional calls, in 2018 and in 2019, designed and developed specifically for the non-energy, non-agricultural raw materials sector.

Publishable summary: The work undertaken contributed to strengthening ERA-MIN 2's connections with external EU stakeholders and related initiatives, EU projects and platforms to promote synergies and avoid duplication of efforts. This has been achieved by several ways: i) inviting research funding organisations from other EU countries and regions to participate in additional Joint calls in 2018 and in 2019; ii) establishing an Advisory Board composed of the relevant initiatives, EU projects and industrial associations to provide advice and guidance on thematic areas of Joint Calls; iii) becoming a member of High Level the EIP on Raw Materials and FORAM Stakeholders; iv) presenting information about existing external stakeholders, initiatives and projects to the ERA-MIN 2 consortium; v) participating in international and national conferences, workshops and meetings to promote awareness of ERA-MIN 2 and its joint calls and organising the Final Conference and Final Seminar of Call 2017 as a virtual event on November 2021 and the Mid- Term Seminar of Call 2018 and 2019 projects as virtual events. ERA-MIN 2 has successfully involved other EU countries and regions and Québec/Canada in additional Joint Calls in 2018 and 2019 and as a consequence the new ERA-NET Cofund on Raw Materials (ERA-MIN3) in 2020 was enlarged to 7 new countries/regions, including Québec/Canada and will continue disseminating the ERA-MIN 2 funded R&I projects at international events.





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1 INTRODUCTION

The objectives of the Work Package 6 “*Strengthening the raw materials research community*” are:

- Systematic mapping of research funding programmes by establishing a forum for regular consultations between national and international funding organisations and an information channel of main research funding, programmes, and projects across Europe and outside Europe.
- Identify overlaps, gaps, good practices and unsuccessful strategies.
- Establish a network with other EU stakeholders and identify the non-EU countries/regions and actors interested in cooperating with ERA-MIN 2 and evaluate the implementation of joint activities.

Under Task 6.1 “*Cooperation with European RTD community, including related initiatives, EU projects, platforms*” co-led by MINCYT and GSI, a good permanent working relationship between the ERA-MIN 2 consortium and external EU stakeholders involved in long term planning and funding initiatives and closely related research was established.

2 OBJECTIVES

The main objective of this report is to present a list of main EU stakeholders and initiatives with which ERA-MIN 2 is cooperating with since the submission of the application on 8th March 2016 and why this cooperation is essential for the ERA-MIN 2 project. In addition, the report will present the next actions to promote engagement of ERA-MIN 2 with other EU countries and existing initiatives and platforms and identify the EU countries/regions and actors interested in cooperating with ERA-MIN 2 and evaluate the implementation of joint activities.

The objective is (i) to broaden the network of research funding organisations to support the network of research performing organisations in the raw materials sector and (ii) to ensure ERA-MIN 2 scope and objectives are relevant and timely.

ERA-MIN 2 aims to be represented at the High-level Steering Group (HLSG) of EIP Raw Materials.

A close link will be established with Horizon 2020 funded CSA VERAM through the ERA-MIN 2 German partner (JUELICH) contributing for the update of the Raw Materials Roadmap.

ERA-MIN 2 will be directly linked to external programmes and initiatives through the ERA-MIN 2 Advisory Board which will include representatives of the major initiatives and projects, related to the sector. Others can be invited for ERA-MIN 2 meetings, when appropriate.

3 EXISTING COOPERATION WITH OTHER INITIATIVES, PROJECTS

ERA-MIN 2 identified relevant on-going projects and initiatives with which direct collaborations were desirable at the beginning of the project, as described in the Description of the Action (Annex 1 of the Grant Agreement) and an update is presented in Table 1.



Table 1 – List of initiatives and projects linked with ERA-MIN 2.

Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)
European Innovation Partnership on Raw Materials (EIP Raw Materials)	Initiative launched by EC. It is a stakeholder platform which main objective is to help raise industry's contribution to the EU's GDP to around 20% by 2020 by securing its access to raw materials. The SIP's EIP RM (2013) addresses R&I actions under three pillars: technology, non-technology and international cooperation.	ERA-MIN 2 through the coordinator institution FCT is represented at the EIP Raw Materials succeeding to ERA-MIN.	ERA-MIN 2 was a member of the of the High Level Steering Group of the EIP Raw Materials for the mandate 2017-2020 and its successor ERA-MIN3 has a mandate for 2021-2024





<p>EIT Knowledge and Innovation Community (KIC) Raw Materials</p>	<p>EIT RM focuses on mineral raw materials. Bio-based and polymer materials are covered in view of their substitution potential. Other materials will also be considered in the context of multi-material product recycling. The KIC will address challenges in the field of raw materials (sustainable exploration, extraction, processing, recycling and substitution). The KIC will integrate multiple disciplines, diversity and complementarity along the three sides of the knowledge triangle (business, education and research) and across the whole raw materials value chain.</p>	<p>ERA-MIN 2 objectives are aligned with EIT RM strategies and R&I topics thus ERA-MIN 2 joint calls will complement the KIC activities by supporting R&I near to the market in the same field. This means that the research funded by ERA-MIN can enter the market with the KIC's support on dissemination and exploitation of projects results. KIC members are potential applicants to the ERA-MIN joint calls which will be disseminated to them. At the same time, ERA-MIN 2 joint call topics will be informed by the industrial view and needs through the KIC.</p>	<p>EIT RM is a member of the ERA-MIN 2 Advisory Board and has participated in two AB meetings. The ERA-MIN 2 joint calls were disseminated among the KIC members which are potential applicants. A 2-hours joint ERA-MIN2, ERA-MIN3 and EIT RM workshop entitled: "From lab to market – opportunities for creating a unique collaborative environment for innovations to address raw materials challenges" was organised on the 24th May and an exhibition stand at the RawMaterials Summit conference 23rd-25th May 2022 in Berlin.</p>
<p>Projects/Initiative relevant for ERA-MIN 2</p>	<p>Projects/Initiative area of focus</p>	<p>Specific interaction with ERA-MIN 2</p>	<p>Update (November 2022)</p>
<p>European Technology Platform on Sustainable Mineral Resources (ETP-SMR)</p>	<p>Aims at modernising and reshaping a fundamental pillar of the European economy: the European Minerals Industries. These include oil, gas, coal, metal ores, industrial minerals, ornamental stones, aggregates, smelters as well as technology suppliers and engineering companies.</p>	<p>ERA-MIN 2 can learn about the R&I needs and gaps of the industry through ETP-SMR. One of its members is EUROMINES.</p>	<p>ERA MIN 2 partner (FCT) has attended 3 ETP-SMR General Assembly to disseminate the Calls and other joint activities. EUROMINES/ETP-SMR as a member of the ERA-MIN 2 Advisory Board joined the two AB meetings</p>





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Horizon 2020 CSA VERAM (2016-2018)	Raw Materials Roadmap for Europe	JÜLICH is also a partner in VERAM thus is facilitating the inputs of ERA-MIN 2 to the update of the Roadmap. Invitation of VERAM representatives for ERA-MIN 2 meetings. ERA-MIN is represented by its coordinator (CNRS).	JUELICH on behalf of ERA MIN 2 has maintained connected with VERAM that has joined their kick-off and 2 workshops. The ERA-MIN 2 partners contributed to the VERAM survey.
Horizon 2020 2016 call topic for Cross thematic ERA NET on Applied Geosciences (GeoERA)	Minerals (ICT, Groundwater & Geothermal Energy).	Members of ERA-MIN 2 that are also member of GEO ERA (e.g. GSI) are providing inputs of ERA-MIN 2 at the respective meetings and could inform ERA-MIN 2 on their research interests. Joint calls on a topic of common interest could be considered.	ERA-MIN 2 and GeoERA projects are connected via ERA MIN 2 member GSI - updates of ERA MIN 2 has been presented at GeoERA meetings and vice versa. Through the GeoERA co-funded call, 4 minerals projects were supported: Mintel4EU, FRAME, Eurolithos, MINDeSEA
Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)





<p>Horizon 2020 CSA INTRAW (International cooperation on Raw materials)</p>	<p>INTRAW project has been set up to map and develop new cooperation opportunities related to raw materials between the EU and other technologically advanced countries (Australia, Canada, Japan, South Africa and the United States, addressing: R&I, exploration, extraction, processing and recycling practices, management and substitution of critical raw materials, raw materials policies and strategies, joint educational and skills programmes, etc. INTRAW will launch the European Union’s International Observatory for Raw Materials as a definitive raw materials intelligence infrastructure.</p>	<p>EFG is the INTRAW coordinator and an Observer organisation of ERA-MIN 2 facilitating international cooperation as well as cooperation with other EU funded projects. FCT as partner of INTRAW assures cooperation between both projects.</p>	<p>The INTRAW project finished in 2018 and the main achievement was the establishment of the International Raw Materials Observatory as an international non-profit organisation (AISBL) in which FCT is a full member. Updates of ERA-MIN 2 have been presented at INTRAW meetings and vice-versa. INTRAW has disseminated the ERA-MIN calls in their website and by stakeholders.</p>
<p>Horizon 2020 CSA MIN-GUIDE (Minerals Policy Guidance for Europe)</p>	<p>MIN-GUIDE is a project addressing the need for a secure and sustainable supply of minerals in Europe by developing a ‘Minerals Policy Guide’.</p>	<p>ERA-MIN 2 has partners of the same countries as the MIN-GUIDE network (Portugal, Belgium, Spain, Sweden and Finland) through which links and flows of information have been established.</p>	<p>MIN-GUIDE has finished and project reports on policy were produced as well as country profiles (https://www.min-guide.eu/project-results) that were disseminated among ERA-MIN 2 network</p>
<p>Projects/Initiative relevant for ERA-MIN 2</p>	<p>Projects/Initiative area of focus</p>	<p>Specific interaction with ERA-MIN 2</p>	<p>Update (November 2022)</p>





<p>Horizon 2020 CSA MINATURA 2020 (Developing a concept for a European minerals deposit framework)</p>	<p>The overall objective of the project is to develop a concept and methodology for the definition and subsequent protection of “mineral deposits of public importance” in order to ensure their “best use” in the future and to be included in a harmonised European regulatory/guidance/Policy framework.</p>	<p>ERA-MIN 2 has funding partners of the same countries as the MINATURA 2020 partners (Belgium, France, Ireland, Poland, Portugal, Romania, Slovenia, Spain and Sweden) through which links and flows of information can be established.</p>	<p>MINATURA 2020 has finished and all interested stakeholders are invited to subscribe to the project’s Council of Stakeholders (https://www.linkedin.com/groups/13523850).</p>
<p>European industrial associations (International Mining Association¹, EUROMINES², EUROROC³)</p>	<p>IMA-Europe provides sector-based representation for industrial minerals. EUROROC - European & International Federation of Natural Stone Industries. EUROMINES represents an interface between the European extractive industry and the European authorities and international or intergovernmental bodies.</p>	<p>ERA-MIN 2 interacts with the European industrial associations to learn about the R&I priorities in the sector that will contribute for more focused joint calls on demand side.</p>	<p>Representatives from EUROMINES and IMA-Europe are members of the ERA-MIN 2 Advisory Board.</p>

¹ International Mining Association (<http://www.ima-europe.eu/>)

² European Association of Mining Industries, Metal Ores & Industrial Minerals (: <http://www.euromines.org/>)

³ European & International Federation of Natural Stone Industries (<http://www.euroroc.net/>)





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Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)
CRM Alliance⁴	The CRM Alliance is the representative body of primary producers, traders and associations of CRM (representing 15 out of the 20 listed CRMs) to advocate the importance of CRMs for the European economy and to promote a strong European CRM policy. They oversee an MEP Interest Group on Critical Raw Materials to connect industry with policy-makers through bi-annual political luncheon events.	ERA-MIN 2 learns about the R&I needs and gaps of the industry related to Critical Raw Materials (CRM).	The ERA-MIN joint calls were disseminated to the members of CRM Alliance.
PROMETIA (international non-profit association in mineral processing and extractive metallurgy for mining and recycling of raw materials.	Aims to strengthen European technical skills and industrial know-how in raw materials processing and support industrial and economic development.	ERA-MIN 2 learns about the R&I mining and recycling of raw materials needs and gaps from industry, SMEs and academia in mineral processing and extractive metallurgy. ICE is permanent observer of PROMETIA.	Representative from PROMETIA is a member of the ERA-MIN 2 Advisory Board . ERA-MIN 2 members (FCT, JUELICH and ADEME) have attended PROMETIA annual Scientific Seminars in which ERA-MIN Calls were disseminated. The 9th edition of the PROMETIA Scientific Seminar was organised in cooperation with the Novel Circular Economic Approaches for Efficient Extraction of Valuables from Spent Li-Ion Batteries (NEXT-LIB) ERA-MIN project 1-2 December, 2022 in Barcelona, Spain.

⁴ CRM Alliance (<http://criticalrawmaterials.org/>)





Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)
EuroGeoSurveys (EGS)	Minerals and Raw Materials Expert Group	ERA-MIN 2 partners (e.g. GSI) and Observer organisations that are also members of EGS I represent the network at EGS activities.	GSI has connected EGS and ERA-MIN 2 activities including feedback to Horizon2020 planning. GSI and AEI joined one EGS workshop.
Expert network on Critical Raw Materials (SCREEN)	This CSA will build an expert network for critical raw materials, covering all three pillars of primary, secondary and substitution.	ERA-MIN 2 links with this Expert network not only to raise awareness and promote the joint calls but also to find experts for peer-review of proposals. ERA-MIN 2 participates in meetings and workshops, shares ideas and contributes with the needs of funding organisations.	Representatives from ERA MIN 2 (FCT, JULICH and ADEME) have attended SCREEN workshops and webinars. FCT has translated to Portuguese the 10 visuals of the communication campaign on the EU 27 CRM.
ERA-NET Cofund on marine and maritime technologies (MarTERA)	Open maritime and marine topics in line with the Strategic R&I Agenda and its Implementation Plan under the Joint Programming Initiative "Healthy and Productive Seas and Oceans" (JPI Oceans) and will contribute to the implementation of the European Blue Growth Agenda and marine and maritime-related Directives	Deep sea mining is one topic of common interest. Goal of cooperation would be to avoid overlapping and to identify possible synergies. This will be facilitated by the participation of some ERA-MIN 2 partners in this network (e.g. JÜLICH would be the coordinator and FCT a partner).	FCT and the MarTERA coordinator discussed the future call topics in order to avoid duplication. Even if ERA-MIN 2 is not excluding deep sea mining in the call topics so far no project was selected in this area. MarTERA Call 2019 addresses the topic deep sea mining on sensors, automation, monitoring and observations.





Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)
<p>M-ERA.NET 2 - ERA-NET for materials research and innovation (2016-2021)</p>	<p>Network of 42 funding programmes for the coordination of European research programmes and related funding in materials science and engineering</p>	<p>Secondary raw materials and substitution are topics of common interest and 10 ERA-MIN 2 partners (Business Finland, JÜLICH, NCBR, FCT, Vinnova, TUBITAK, AEI, ICE, MIZS and UEFISCDI) are also M-ERA.NET 2 partners to avoid duplication of efforts and facilitate synergies and joint activities.</p>	<p>FCT has invited partners of M-ERA.NET 2 to associate to the ERA-MIN Joint Calls considering the topics of common interest. FCT has suggested to include the circular economy approach in the M-ERA.NET Call topics which are not duplicating with ERA-MIN 2. The ERA-MIN call topics were presented by AEI to the Strategic Expert Group meetings of M-ERA.NET 2.</p>
<p>JPI Oceans (Joint Programming Initiative "Healthy and Productive Seas and Oceans")</p>	<p>One of the 10 strategic areas of the JPI Oceans Strategic R&I Agenda is: "<i>Exploring Deep Sea Resources</i>". The JPI Oceans' Member Country representatives launched a joint research activity - <i>JPI Oceans' Pilot Action on "Ecological Aspects of Deep-Sea Mining"</i> that analyses the long-term ecological consequences of deep-sea polymetallic nodule mining to inform the international regulation of deep sea mining activities.</p>	<p>The pilot action is coordinated by DE with partners from 11 countries (BE, DE, FR, IT, NL, NO, PL, PT, RO, SE, UK) out of which eight are also partners of ERA-MIN 2. ERA-MIN 2 offered support to projects to address the strategic areas of JPI Oceans and networking was needed to avoid duplication of efforts and to promote synergies.</p>	<p>The Mining Impact⁵ project will follow up on the results of the first JPI Oceans supported Pilot Action concluded in 2017. FCT through JPI Oceans is supporting this project and will follow the outcomes.</p>

⁵ <https://miningimpact.geomar.de/miningimpact-2>





Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)
EMODNET (European Marine Observation and Data Network)	The geology portal aims to provide free access to (i) geological data and metadata based on international standards and (ii) geological data products. EMODnet Geology data and map products contain information on the sea-bed substrate, including minerals.	GSI is a member of EMODNET and leads the EMODNET Geology WP which is focussed on marine minerals and aggregates. Successful R&I projects will be asked to provide relevant data to EMODNET.	GSI is a WP leader of EMODNET Geology (which includes marine minerals) and GSI staff working closely to connect these projects.
European Regions Research and Innovation Network (ERRIN)	Promotes knowledge exchange between its members, focusing on joint actions and project partnerships to strengthen regional R&I capacities.	ICE is a partner and can facilitate the dissemination of ERA-MIN 2 activities and results to the EU regions and through ERRIN. ERA-MIN 2 can learn about the R&I EU regions needs related to, for instance, circular economy.	The ERA-MIN joint calls were disseminated to the members of ERRIN.
European Federation of Geologists		EFG is an Observer organisation of ERA-MIN 2 contributing for dissemination activities, providing names of potential reviewers, facilitating international cooperation as well as cooperation with other EU funded projects. EFG is coordinating INTRAW.	The ERA-MIN joint calls were disseminated to the members of EFG.





Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)
<p>COST (European Cooperation in Science and Technology) actions, e.g. CA15115 Mining the European Anthroposphere (MINEA), CA15102 Solutions for Critical Raw Materials Under Extreme Conditions (CRM-EXTREME) and ES1407 European network for innovative recovery strategies of rare earth and other critical metals from electric and electronic waste (ReCrew)</p>	<p>COST Actions are science and technology networks. MINEA action aims to actuate the reporting of material resources/reserves in the anthroposphere. The focus is on (1) construction and demolition waste, (2) waste regained from landfills and (3) solid residues from waste incineration. CRM-EXTREME focuses on the substitution of CRMs (like Cr, Co, Nb, W, Y) in high value alloys and metal-matrix composites used under extreme conditions in Energy, Transportation and Machinery manufacturing industries. ReCrew aims to develop concerted collection, pre-treatment and refining processes for an utmost efficient critical metals recovery.</p>	<p>ERA-MIN 2 joint calls can complement the networks established in COST actions through research funding which is not supported by COST.</p>	<p>The ERA-MIN joint calls were disseminated to the members of the 3 COST actions relevant to raw materials.</p>
<p>Strategic Dialogue on Sustainable Raw Materials for Europe (STRADE)</p>	<p>STRADE addresses the long-term security and sustainability of the European raw material supply from European and non-European countries to develop dialogue-based, innovative policy recommendations for a European strategy on future raw-material supplies. The project brings together research, practical experience, legislation, best practice technologies and know-how in the following areas: Strengthening the European raw-materials sector; a European cooperation strategy with resource-rich countries; Internationally sustainable raw-material production & supply.</p>		<p>STRADE has finished and has published synthesis reports and policy briefs of interest to ERA-MIN 2 cooperation with Africa and Latin America</p>





Projects/Initiative relevant for ERA-MIN 2	Projects/Initiative area of focus	Specific interaction with ERA-MIN 2	Update (November 2022)
FORAM "Towards a World Forum on Raw Materials"		ERA-MIN 2 could be a stakeholder of FORAM	ERA-MIN 2 via FCT is a member of the FORAM stakeholders and has answered a survey.
The Near-zero European Waste Innovation Network (NEW_InnoNet)	NEW_InnoNet's main goal is to mobilise stakeholders towards building a circular economy by developing and reinforcing solid foundations for building the European Near-Zero Waste Platform. More concretely, the NEW_InnoNet project has four specific objectives: Set-up and maintain near zero waste stakeholder platform; Analyse selected waste streams and develop innovation roadmaps per waste stream; Develop an integrated near zero waste strategic research and innovation agenda; Stakeholder mobilisation and interaction.		The project has finished in 2017 and Business Finland (former Tekes) and ICE (former ADE) have participated at the Stakeholder Conference.
Horizon 2020 Sustainable Management in the Extractive Industries (SUMEX)	SUMEX is a 36-month project funded by the European Commission that started on 1 November 2020. The project aims to establish a sustainability framework for the extractive industry in Europe, with the involvement of stakeholders from civil society, academia, industry and government backgrounds from all across the EU.	ERA-MIN 2 is already a stakeholder of SUMEX	ERA-MIN 2 via FCT and AEI-FECyT have establish contact with SUMEX representatives and scheduled a meeting (also with MIZS, GSI representatives) to participate in the upcoming SUMEX Clustering Workshop on 15 June 2021, with the participation of 4 selected funded project coordinators

The ERA-MIN 2 partners responsible to establish the link with the projects and initiatives listed in table 1 were first identified in the Communication and Dissemination Plan (public at



ERA-MIN 2 website) and secondly the partners effectively involved in the collaboration are described in the public report D5.4. FINAL DISSEMINATION AND EXPLOITATION REPORT.

3.1 ERA-MIN 2 OBSERVER ORGANISATIONS

As mentioned in the Grant Agreement, at the beginning of ERA-MIN 2 there were 11 Observer organisations of which 9 from Europe. It was expected to be extended to 24 of which 18 across Europe at the end of the project. The 9 Observer organisations were:

- EIT Raw Materials
- Geological Survey of Denmark and Greenland (GEUS)
- Bulgarian Academy of Sciences – Geological Institute (GI-BAS)
- European Federation of Geologists (EFG)
- EUROMINES
- PROMETIA
- CSA INTRAW
- CSA MINATURA 2020
- CSA SCREEN

These have stated that they are willing to explore options for future cooperation with ERA-MIN 2. After the project started, other EU institutions signed the letter of support, namely:

- IGME (Greece)
- MinPol (Austria)
- ETP-SMR

In ERA-MIN Joint Call 2017, the German Ministry BMBF and the Irish Environmental Protection Agency (EPA) has committed funds through partners JUELICH and GSI, respectively.

ERA-MIN 2 has also developed relationships with funding organisations from other EU countries and regions not part of the ERA-MIN 2 consortium and encouraged their association to joint activities (e.g. joint call 2018 and 2019).

As a result, six new funding organisations have joined the ERA-MIN Joint Call 2018, in which a total of 24 funding organisations have participated. Five out of these 6 Observers organisations are from EU Member States countries or regions, namely: Brussels/Belgium (Innoviris), Wallonia/Belgium (SPW-Wallonie), Calabria/Italy (Calabria Regione), Greece (GSRT) and Slovakia (SAS).

In the ERA-MIN Joint Call 2019, TACR (Czech Republic) has participated for the first time in addition to other national and regional funding organisations.

Not only the 21 ERA-MIN 2 partners but also relevant funding organisations as Observers were asked to answer surveys about their research funding programmes to promote the knowledge sharing as well as about the potential interest in thematic areas of future Joint Calls and the new ERA-NET Cofund on Raw Materials (ERA-MIN3) in late 2020.

3.2 ERA-MIN 2 ADVISORY BOARD

The Advisory Board supports a strong working relationship between ERA-MIN 2 and external international stakeholders involved in long term planning and funding initiatives and closely related science and technology. These stakeholders include industry, academia, national/regional research programming organisations, as well as other related platforms and industrial associations. The Advisory Board ensures that ERA-MIN 2 activities throughout the five year programme will remain relevant and positively impact the sector.

The Advisory Board provides ERA-MIN 2 with advice and guidance on the research priorities of the joint calls. It is not responsible for the final decisions made by the Network Steering Committee of ERA-MIN 2.

The Advisory Board comprises a maximum of 10 people. The Board includes representatives of a large group, namely:

- EIT Knowledge and Innovation Community (KIC) Raw Materials
- Horizon 2020 CSA Veram (2016-2018)
- IMA-Europe - International Mining Association
- EUROMINES - European Association of Mining Industries, Metal Ores & Industrial Minerals
 - PROMETIA - International non-profit association in mineral processing and extractive metallurgy for mining and recycling of raw materials
 - EuRIC - organisation for the recycling industries in Europe

Representatives of these organisations were appointed as members of the ERA-MIN 2 Advisory Board, except for IUGS – International Union of Geological Sciences which was invited but no representative was indicated.

The Advisory Board have met once per year before the launch of the joint calls 2017 and 2018.

The Terms of Reference that describe their role and responsibilities, conduct and meetings has been elaborated (Annex 1).

The first Advisory Board meeting took place on 2nd December 2017, where the call topics were discussed for the Joint Call 2017 with the participation of 3 members and HaDEA (ex-EASME) (Table 2).

The second Advisory Board meeting to discuss the topics of the Joint Call 2018 took place in Paris on 27th February 2018 with the participation of representatives from 7 organisations and DG GROW (Table 2).

Table 2 – Participants at the Advisory Board (AB) meetings.

Institution	Representative at the first AB meeting	Representative at the second AB meeting
EIT Knowledge and Innovation Community (KIC) Raw Materials	yes	yes
Horizon 2020 CSA VERAM (2016-2018)	yes	yes



PROMETIA (18 international non-profit association in mineral processing and extractive metallurgy for mining and recycling of raw materials.	yes	yes
SCREEN -	no	yes
EuRIC - Organisation for the recycling industries in Europe	no	yes
EUROMINES – European Association of Mining Industries, Metal Ores & Industrial Minerals	no	yes
IMA-Europe – International Mining Association	no	yes
HaDEA (ex-EASME) - The Executive Agency for Small and Medium-sized Enterprises	yes	no
DG GROW - DG for Internal Market, Industry, Entrepreneurship and SMEs	no	yes

The third Advisory Board meeting was implemented as a public workshop enlarged to more participants by invitation only. On May 24, 2022, in cooperation with ERA-MIN3 and EIT Raw Materials, the joint ERA-MIN 2 and ERA-MIN3 Workshop "From Lab to Market – Opportunities for Creating a Unique Collaborative Environment for Innovations to Address Raw Materials Challenges" (see agenda in Annex 2) took place during the Raw Materials Summit, May 23-25, in Berlin, with 48 participants representing universities, research institutes and enterprises, including the AB members. There were 5 work group discussions facilitated by an ERA-MIN representative from AEI/FECYT, FCT, GSI, MIZS, PtJ and Vinnova and an EIT RawMaterials representative (Fig.1).

The main outcomes keywords from each group discussion were:

- **Social acceptance in raw materials value chains:** Open and transparent dialogue; public awareness, education of people.
- **Work environment in mining:** IT skills, incentivizing education, public awareness (school trips, virtual reality).
- **New business models for the raw materials sector:** Driven by companies, market transfer, cooperation along the value chain
- **Industrial challenges in raw materials value chains:** Technology transfer, relationship of industry and research, attract industrial partners
- **Raw materials critical for EU industry resilience:** Education, dissemination to public, access to data attractive for companies.





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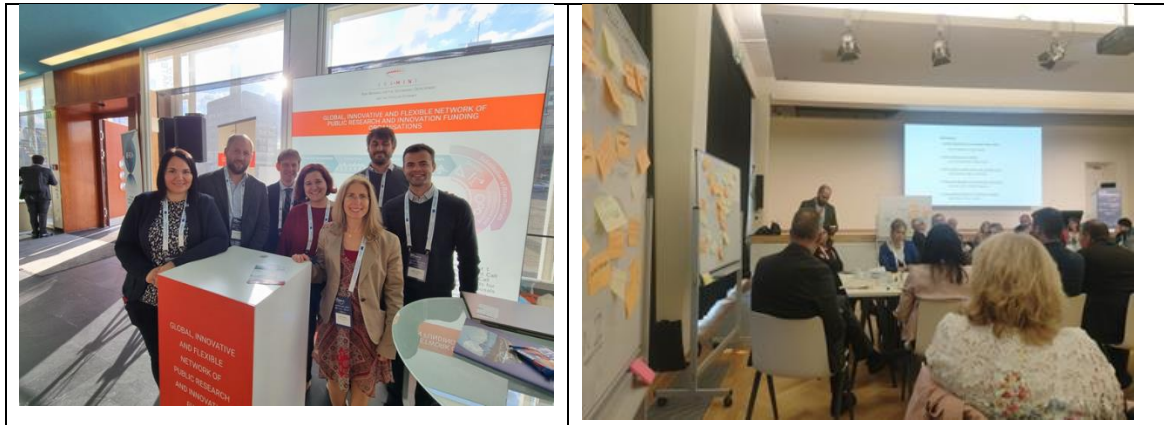


Figure 1 — ERA-MIN workshop group discussions (photo on right side); ERA-MIN Team at the ERA-MIN booth during RawMaterials Summit (left side).

3.3 ERA-MIN 2 MEETINGS AND WORKSHOPS

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 reception to welcome the official start of ERA-MIN 2 on Dec. 1st 2016. (<https://www.era-min.eu/news/era-min-2-kick>).

Representatives of two organisations interested in joining the ERA-MIN Joint Call 2018, namely Wallonia/Belgium (SPW-Wallonie) and Slovakia (SAS) have attended the Network Steering Committee in Dublin, Ireland, on June 27th 2018.

Five out of 6 Observers institutions that have associated to the ERA-MIN Joint Call 2018 from Brussels/Belgium (Innoviris), Wallonia/Belgium (SPW-Wallonie), Calabria/Italy (Calabria Regione), Greece (GSRT) and Slovakia (SAS) also attended not only the Call Steering Committee but also the Network Steering Committee meeting in Bled, Slovenia, on May 9th-10th 2019.

During these meetings an interactive workshop was organised to discuss the structure and thematic areas of the future ERA-NET Cofund on Raw Materials (ERA-MIN 3) that will follow the ERA-MIN 2 activities. DG GROW did an introduction on policy landscape and the success of ERA-MIN network since 2011 before the start of the workshop. Representatives from 22 different funding organisations participated in the workshop of which 19 from EU Member States countries/regions and one from EU Associated Country.

On 25-26 September 2019, the Call Steering Committee met in Lisbon in order to consolidate the call documents of the Joint Call 2019 and also meeting with EU funding organisations interested in joining the future ERA-NET Cofund on Raw Materials (ERA-MIN 3).

On 18-19 November 2021, The **ERA-MIN 2 Final Conference and Final Seminar of Call 2017 projects** was organised as a virtual event with the participation of the 16 project coordinators who presented the final results moderated by Scientific Evaluation Board chair and co-chair, the ERA-MIN 2 partners and 4 invited guests (DG GROW, HaDEA (ex-EASME), JRC and EIT RawMaterials).



On 3 March 2022, the **Mid-Term Review Webinar of ERA-MIN 2 Call 2018 projects** was organised as a virtual event with the participation of the 12 project coordinators who presented the public results and discussed the progress of the projects with the funding organisations in a confidential section.

On 8 June 2022, the **Mid-Term Review Webinar of ERA-MIN 2 Call 2019 projects** was also organised as a virtual event as done for Call 2018.

3.4 ERA-MIN 2 MEMBERSHIP

On July 18th, ERA-MIN 2 was nominated as member of the High-Level Steering Group of the European Innovation Partnership on Raw Materials for the period 2017-2020 following the submission of an application. The representative is the FCT's President and the Sherpa representative is the ERA-MIN 2 project coordinator (Dina Carrilho).

ERA-MIN 2 is a stakeholder member of the panel of EU project FORAM - "Towards a World Forum on Raw Materials" and Dina Carrilho as the ERA-MIN 2 coordinator is the representative. The WP2 Questionnaire for Stakeholders has been answered by July 14th 2017.

Holger Grunewald (JUELICH) has represented ERA-MIN 2 together with Elisabeth Kohler, as the official representative of ERA-MIN, in the VERAM consortium. ERA-MIN 2 partners contributed to the VERAM survey on funding programmes in September/October 2016 and have disseminated the ERA-MIN 2 activities at the VERAM meetings.

3.5 ERA-MIN 2 PARTNER SEARCH TOOL

Under this subject, collaboration was established between ERA-MIN 2 and EU project NCPs_CARE⁶.

The partner search tool developed by the EU project NCPs_CARE, that supports potential applicants for the Horizon 2020 Work programme of the Societal Challenge 5 "*Climate action, environment, resource efficiency and raw materials*" in finding partners and building a consortium for a project proposal, has been customised to allow partner searches and partner offers in the specific ERA-MIN 2 call main topics and sub-topics in 2017 and also in 2018.

Six partner searches and 22 partner offers related to topics of ERA-MIN Joint Call 2017 were publicly available at the online partner search. By the end of the proposal submission deadline of the Joint Call 2018 (in January 2019) the number of entries specific for the ERA-MIN call topics has increased to 40, of which 21 aimed to search or reach new partners to build a proposal consortia.

Additionally, other general partner search tools were suggested:

- European Commission's partner search service⁷;
- Enterprise Europe Network (EEN).

⁶ <http://partnersearch.ncps-care.eu/>

⁷



3.6 ERA-MIN 2 PARTICIPATION IN CONFERENCES, WORKSHOPS, MEETINGS

ERA-MIN 2 consortium has been active before and since the official start date of the network. Not only the ERA-MIN 2 project coordinator (FCT) but also many partners, namely ADEME, ANR, AEI, ANID (ex-CONICYT), DSI, GSI, JUELICH, ICE, TUBITAK and Vinnova have presented ERA-MIN 2 at international conferences, workshops, meetings with other projects and initiatives, such as:

- 26 January 2016, Brussels - **Veram kick-off meeting**, the German partner JUELICH has attended (Holger Grunewald).
- 28-29 June 2016, Brussels - **Workshop “Exchange of best practices on mining policies and technologies: challenges in the current state of the global economy”**, ERA-MIN 2 poster
- 28-29 September 2016, Berlin, **Implementing ERA-NET Cofunds – ERA-LEARN workshop**, Holger Grunewald (JUELICH) and Pedro Figueroa (CONICYT) have participated representing ERA-MIN 2
- 19 October 2016, Antwerp, **Veram Stakeholder Workshop**, Elisabeth Kohler (ERA-MIN representative), Jean-Francois Renault and Holger Grunewald (JUELICH) have attended and Elisabeth presented an outlook on ERA-MIN 2.
- 26 Oct. 2016, Stockholm – **Workshop with the coordinators of the 17 ERA-MIN funded projects**, ERA-MIN 2 presentation by Dina Carrilho (FCT)
- 27 October, Burgos - **High Level Conference: European Regions in the CRM strategy and the CE Policy**, participation by partner ICE.
- 29 Nov. 2016, Brussels - **ETP SMR General Meeting**, ERA-MIN 2 presentation by Dina Carrilho (FCT);
- 29 Nov. 2016, Brussels - **Workshop FORAM "Towards a World Forum on Raw Materials"**, participation of Dina Carrilho (FCT)
- 30 November 2016, Brussels, **EGS Raw Materials Week Workshop**, both Aoife Braiden (GSI) and Severino Fálcon (AEI) represented ERA-MIN 2 and made a presentation
- 30 Nov. 2016, Brussels - **“Horizon 2020, EIT Raw Materials and ERA-MIN 2 Information and Brokerage event”** , ERA-MIN 2 Call 2017 presentation by Dina Carrilho, participation by Pedro Figueroa (CONICYT)
- 1 December 2016, Brussels - **4th Annual High Level Conference of the European Innovation Partnership (EIP) on Raw Materials**, participation by Dina Carrilho, Ufuk Atay, Severino Fálcon, Pedro Figueroa, etc. A poster was presented and call pre-announcements were distributed.
- 14-15 Dec. 2016, Berlin - **PROMETIA’s third Scientific Seminar**, Holger Grunewald (JUELICH) presented ERA-MIN 2.
- 14 Feb. 2017, Kiev - **Romanian experience with PPP, JTI and JPI**, rep. UEFISCDI
- 2 March 2017, Lille - **Congress on recycling of strategic metals**, presentation by partner ADEME.
- 6 March 2017, Berlin - **Berlin Conference on Recycling and Raw Materials**, presentation by partner JUELICH.
- 9-10 March 2017, Brussels - **Circular Economy Stakeholder Conference**, Severino Fálcon (AEI) participated and distributed call announcement leaflets.
- 10 March 2017, Brussels -**REFRAM Final Conference (European Project on refractory metals)**, presentation by partner ADEME.



- 14 March 2017, Rio do Janeiro – **Workshop “Chamada publica conjunta ERA-MIN 2017 – Matérias-primas para o Desenvolvimento Sustentável e Economia Circular”**, organised by Finep and to promote the Call 2017, rep. FCT
- 13 June 2017, Brussels - **Veram Workshop "Europe 2050 - Preparing a Research & Innovation Roadmap for Raw Materials"**, Holger Grunewald (JUELICH) has represented ERA-MIN 2 together with Elisabeth Kohler as the official representative of ERA-MIN in the VERAM consortium.
- 28-29 June 2017, Brussels - **SCREEN Expert Group workshop on CRM ‘Resources’ issues - and SCREEN clustering event with Horizon 2020-projects** - Jean-François Renault (JUELICH) represented ERA-MIN 2
- 21-22 Sept 2017, Berlin – Implementing and ERA NET Cofund, **ERA LEARN Workshop**, represented by JUELICH and CONICYT
- 29 Sept 2017, Brussels – **9th Sherpa Meeting of the European Innovation Partnership (EIP) on Raw Materials**, rep. FCT
- 24 Oct 2017, Bucharest – **ACT 2** knowledge sharing workshop
- 27 Oct 2017, Paris – Info Day on Raw Materials, **Ministry for Research France**, rep. ADEME and ANR
- 31 Oct 2017, Lisbon – **EIT Raw Materials** promotion event, rep. FCT
- 31 Oct 2017, Lisbon – **Horizon2020 Portuguese** Raw Materials Infoday, rep. FCT
- 8-9 Nov 2017, Brussels – **Raw Materials Week, 5th High Level Conference**, rep. FCT
- 16 Nov 2017, Valladolid, Spain – **Horizon2020 SC5** regional Infoday, rep ICE
- 1 Dec 2017, Brussels – **EIP Raw Materials HLSG** meeting, rep. FCT
- 22 Dec 2017, Valladolid, Spain – **REMIX Interreg** Project, Stakeholder Meeting, rep. ICE
- 20-22 March 2018, Valladolid, **Smart & Green Mining Regions of EU Conference** Rep ICE
- 11 Apr 2018, Madrid – **Ministry of Economy, Industry and Competitiveness of Spain**, rep. AEI
- 16 Apr 2018, - **ETP-SMR General Meeting**, rep. FCT
- 14-15 May 2018, Ispra – **II International Workshop on the EU Raw Materials Information System (RMIS)**, rep. FCT
- 11 July 2018, Madrid – **Materplat** General Assembly, rep. AEI
- 11 Sept 2018, Brussels – **Horizon2020 Env. & Resources information day**, rep. FCT
- 24-25 Sept 2018, Berlin – **Implementing and ERA NET Cofund – ERA LEARN workshop**, rep. FCT, AEI
- 27 Sept 2018, Lulea – **SIP STRIM** programme day, rep. Vinnova
- 9 Oct 2018, Brussels - **Combined Meeting of the Sherpa Group of European Innovation Partnership on Raw Materials and the Raw Materials Supply Group**, rep. FCT
- 11 Oct. 2018, Johannesburg - **ESASTAP 2020: Horizon 2020 Information Sharing Session on Funding Opportunities**, rep DST
- 15 Oct 2018, Berlin – **EIT Raw Materials Brokerage** Event, rep. JUELICH
- 23 Oct 2018, Madrid – **BIOPLAT** General Assembly, rep. AEI
- 25 Oct 2018, Madrid - **MATERPLAT** General Assembly, rep. AEI
- 23-25 Oct 2018, Antalya – **International Mineral Processing Symposium**, rep. TUBITAK
- 29 Oct 2018, Vienna – **Advanced Materials and Related Technologies**, rep. FCT
- 30-31 Oct 2018, Vienna – **Industrial Technologies Conference**, rep. FCT
- 12-16 Nov 2018, Brussels – **Raw Materials Week**, rep. FCT, ADEME, ANR
- 21 Nov 2018, Madrid – **M-ERA NET 2 SEG workshop**, rep. AEI



- 27-29 Nov 2018, Berlin – **European and National Resources Forum**, rep. JUELICH
- 13-14 Dec 2018, Berlin – **PROMETIA 5th scientific Seminar**, rep. JUELICH
- 20-22 March 2018, **REMIX Mining Conference**. Rep
- 1-3 March 2019, Dublin - **Irish Geological Research meeting**, rep GSI
- 15-16 May 2019, Brussels - **ERA-LEARN thematic partnership workshop: towards Horizon Europe**, rep. ANR
- 20 May 2019, Brussels – **Combined Meeting of Sherpa Group of The European Innovation Partnership on Raw Materials and Raw Materials Supply Group**. Rep. FCT
- 12-14 June, 2019 **EuroNanoForum 2019**. Rep. UEFISCDI (Romania)
- 16-17 September 2019, Brussels, **Infoday on Horizon 2020 Societal Challenge 5 “Climate Action, Environment, Resource Efficiency and Raw Materials”**. Rep. FCT
- 18-22 November 2019, Brussels, **Raw Materials Week**. Rep. FCT
- 18 November 2019, Brussels, **Horizon 2020 Technology Success Stories** in the context of the Raw Materials Week. Rep. FCT
- 6 October 2020 - **EFSES 2020 - European Forum on Science & Education for Sustainability (#EFSES2020)**. Rep. PtJ
- 05 Nov 2020, **Salon Metamorphoses**, Liège. Rep. SPW- Recherche
- 3 December 2020, Online, **JRC Conference and Workshop report on RMIS**, rep. FCT
- 9 December 2020, Online, **EUROPEAN MINING CONVENTION 2020 - VIRTUAL EDITION** rep. FCT
- 10 December 2020, Online, **PROMETIA Scientific Seminar: From Horizon 2020 to Horizon Europe**, rep. FCT
- 8 February 2021, Online, **Processes4Planet Event**, rep. FCT
- 30 March 2021, **CICERONE Final Conference**, Rep. AEI
- 21 April 2021, Gothenburg, **Circular Materials Conference 2021**, Rep. Vinnova, ADEME
- 15 June 2021 **SUMEX Clustering Workshop**, rep. FCT, MIZS, GSI, AEI-FECyT and selected 4 project coordinators.
- 17-19 June 2021 Nancy, France **World Materials Forum 2021**, rep. ADEME
- 5-9 September 2021, Online, **RawMat2021- I International Conference on Raw Materials and Circular Economy**, Athens, Rep. FCT
- 5-8 September, 2021 Online, **The 10th International Conference on Life Cycle Management**, Rep FECYT/AEI
- 30 September, 2021, Online, **2nd Virtual SUMEX Clustering Workshop**. Rep FCT, MIZS and AEI
- 28 October 2021, online, **ECOMONDO**. Rep FCT
- 23-25 May 2022, Berlin, **RawMaterials Summit 2022**. Rep FCT, Julich, Vinnova, SFI, MIZS and AEI
- 1-2 December, 2022, Barcelona, **9th edition of the PROMETIA Scientific Seminar**. In cooperation with the Novel Circular Economic Approaches for Efficient Extraction of Valuables from Spent Li-Ion Batteries (**NEXT-LIB**) **ERA-MIN project Workshop**. Rep ADEME

The majority of the events were announced at the ERA-MIN 2 website.



3.7 PUBLICATIONS

An article that analyses the cooperation established in the previous two ERA-MIN calls and increases awareness of the follow-up ERA-NET ERA-MIN 2 has been published at the European Geologist Journal on Dec. 2016 by the ERA-MIN 2 coordinator - *Carrilho, D. (2016) "Stepping up the international cooperation on raw materials for the sustainable supply of raw materials", European Geologist Journal: 42, 33-36 (<http://eurogeologists.eu/journal/>)*, with the objective to make awareness of ERA-MIN activities following the success of ERA-MIN.

As part of the transition to ERA-MIN3 and in order to contextualize the ERA-MIN community as a whole, a scientific paper that summarizes the analyses of the last 10 years of the network, since the first ERA-MIN programme was launched, was published on [Materials Proceedings](#), in January 2022, paper is entitled "*ERA-MIN: A Decade Since the Inception of the EU Led Effort to Support the International Raw Materials Research Community*"⁸

4 FUTURE COOPERATION WITH EU COUNTRIES, INITIATIVES AND PROJECTS

4.1 EU MEMBER STATES/ASSOCIATED COUNTRIES

ERA-MIN 2 identified the following countries for engagement (and specifically for involvement in joint calls in 2018 and 2019): Austria, Bulgaria, Czech Republic, Denmark, Hungary, Netherlands, Norway and Switzerland, among others.

An interest from researchers of Hungary, Norway and Switzerland has been demonstrated in the ERA-MIN Joint Call 2017 and from British researchers in Joint Call 2018 through their participation in applications with own funds. Representatives of the funding organisations of these countries were invited to join the ERA-MIN Joint Call 2019, as well as the future ERA-NET Cofund on Raw Materials. They also attended either an ERA-MIN 2 meeting or a specific dedicated workshop to discuss the topics of the joint calls.

4.2 EU INITIATIVES AND PROJECTS

In addition to the EU initiatives and projects listed in Table 1, ERA-MIN 2 has also identified other projects and initiatives of interest with which cooperation was desirable, namely:

- ERMA – The European Raw Materials Alliance
- CICERONE EU project
- DG JRC – Raw Materials Information System (RMIS)
- CRM Recovery - LIFE project
- GEOTHERMICA
- European Regions Research and Innovation Network (ERRIN)
- Synergic Circular Economy across European Regions (SCREEN)
- European Resource Efficiency Knowledge Centre (EREK)

⁸ <https://www.mdpi.com/2673-4605/5/1/110>



- Ideas accelerator for European Projects (UP2Europe)
- BREAKIT (Bringing Research Knowledge to Exploitation: A T-Shape Itinerary Approach) proposes a training path to help researchers and other technical professionals to transform knowledge generated in R&D projects into innovations in the market in the area of Raw materials with support of the EIT Raw materials <https://breakitproject.eu/>
- Vision 2050 looks to the future economic development of the European Union (EU) and will deliver a long-term 2050 vision and roadmap to achieve economic growth and restructuring and technological leadership along relevant value chains. <http://veram2050.eu/> and https://www.etpsmr.org/wp-content/uploads/2018/04/Broch.Veram_180328_LR.pdf

Cooperation with ERRIN and SCREEN facilitates the integration of more regions in the ERA-MIN network.

UP2Europe has promoted the ERA-MIN Joint Calls and made available a partner search tool as well as a database of EU funded projects.

5 CONCLUSIONS

ERA-MIN 2 has successfully engaged 5 new EU research funding organisations in the additional calls in 2018 and in 2019 who are willing to join as partners of the future ERA-NET Cofund on Raw Materials in 2020.

To ensure that activities throughout the five year programme will remain relevant and positively impact the sector, the two Advisory Board meetings provided ERA-MIN 2 with advice and guidance on the research priorities of the joint calls 2017 and 2018.

In respect to joint calls, the collaboration with EU projects such as, NCPs_CARE and ERA-LEARN was important for the call implementation.

The Joint Calls were disseminated through the external stakeholders and many of them have published and announced the ERA-MIN Calls in their institutional websites.

ERA-MIN 2 has successfully achieved the objective of establishing cooperation with near 30 EU initiatives, projects and industrial associations in order to promote synergies and avoid duplication of efforts.

In summary, ERA-MIN 2 has established collaboration with the following EU initiatives, projects :

- EIP Raw materials – ERA-MIN 2 was member of HLSG for period 2017-2020
- FORAM – ERA-MIN 2 was a stakeholder Forum member
- EIT Raw Materials, Veram, IMA-Europe, EUROMINES, PROMETIA, SCREEN, EURIC – were ERA-MIN 2 Advisory Board members.
- NCPs_CARE – provided their partner search tool for ERA-MIN Joint Calls 2017 and 2018
- ERA-LEARN – the ERA-MIN Calls were announced in their Call calendar, the information on funded projects was provided, and ERA-MIN 2 has participated in their several workshops
- ETP-SMR – ERA-MIN 2 has participated in their meetings to share information on activities and joint calls

- INTRAW - FCT is a full member of the International Raw Materials Observatory (AISBL) to ensure a close cooperation.
- EFG - was an Observer organisation of ERA-MIN 2
- two COST Actions – the joint calls were disseminated to these research networks
- EGS – ERA-MIN 2 participation in a workshop
- Joint workshop ERA-MIN2/ERA-MIN3 and EIT RawMaterials during the Raw Materials Summit in Berlin, May 2022.

Having established cooperation with almost 30 European initiatives, networks or EU projects since 2016, ERA-MIN will continue strengthening this EU cooperation and also expects to collaborate with other EU projects related to raw materials recently supported by Horizon 2020 (e.g. CICERONE). It would be necessary to explore the new work programs of the recently launched Horizon Europe framework program to follow up on the next calls that will be launched in the areas related to ERA-MIN2

ERA-MIN 2 would like to contribute for the Knowledge gate of the Raw Materials Information System (RMIS) developed by JRC. The results of the 40 funded projects under ERA-MIN 2 should be promoted in this platform.

ANNEX 1 – Advisory Board – Terms of Reference



ERAMIN 2

RESEARCH & INNOVATION PROGRAMME ON RAW MATERIALS
TO FOSTER CIRCULAR ECONOMY

Advisory Board

Terms of Reference

Version 1 | 23.11.2016



1. Background

ERA-MIN 2 is a pan-European network of the main R&I funding organisations consisting of 21 public funding organisations from 18 countries/regions: 13 EU Member States countries/regions (Belgium-Flanders, Finland, France, Germany, Ireland, Italy, Poland, Portugal, Romania, Slovenia, Spain, Spain-Castilla y León, Sweden), one EU Associated Country (Turkey) and four third countries (Argentina, Brazil, Chile and South Africa).

Building on the experience of the EU FP7 ERA-MIN (2011-2015), the main objective of the Horizon 2020 ERA-NET Cofund on Raw Materials (ERA-MIN 2) is to enhance and strengthen the coordination of national and regional European research and innovation (R&I) programmes in the field of non-energy, non-agricultural raw materials, namely, construction, industrial and metallic minerals, through the implementation of three joint calls for transnational collaborative R&I projects.

In line with the integrated strategy proposed in the EU Raw Materials Initiative and the Strategic Implementation Plan of the European Innovation Partnership on Raw Materials, ERA-MIN 2 aims at supporting the research and innovation co-ordination; improving synergy, co-ordination and coherence between regional, national and EU funding in the relevant research fields through international collaboration; reducing fragmentation of raw materials research and innovation efforts across Europe; and improving use of human and financial resources in the area of raw materials research and innovation.

As measures to maximise impact, ERA-MIN 2 will cooperate with the existing initiatives, projects and associations, by establishing an effective communication to assure that all dissemination activities, including the promotion and follow up of project results, will reach out to a wider audience of stakeholders, therefore strengthening the raw material community.

To further increase its impact and to better fulfil the overarching objectives, ERA-MIN-2 will implement a first joint call in 2017 with EU co-funding and further develop and implement at least two joint calls without EU co-funding, in topics of common interest between the participating funding organisations and considering the advice of the Advisory Board.

The total call budget for the ERA-MIN joint call 2017 is circa EUR 15 million, including the EU co-funding. The main joint call topics are based on the three technological themes of the ERA-MIN Research Agenda, namely: (a) Primary Resources, (b) Secondary Resources and (c) Substitution of Critical Raw Materials under a circular economy approach. In addition, the projects may address a number of cross-cutting themes, environmental and social impacts, policy and public perception.

2. Objectives

The Advisory Board will support a strong working relationship between ERA-MIN 2 and external international stakeholders involved in long term planning and funding initiatives and closely related science and technology. These stakeholders include industry, academia, national/regional research programming organisations, as well as other related Platforms and industry associations. Representatives of those relevant initiatives and projects will comprise the ERA-MIN 2 Advisory Board. They may be invited to participate in the Network Steering Committee and Call Steering Committee meetings but without voting rights (Figure 1).

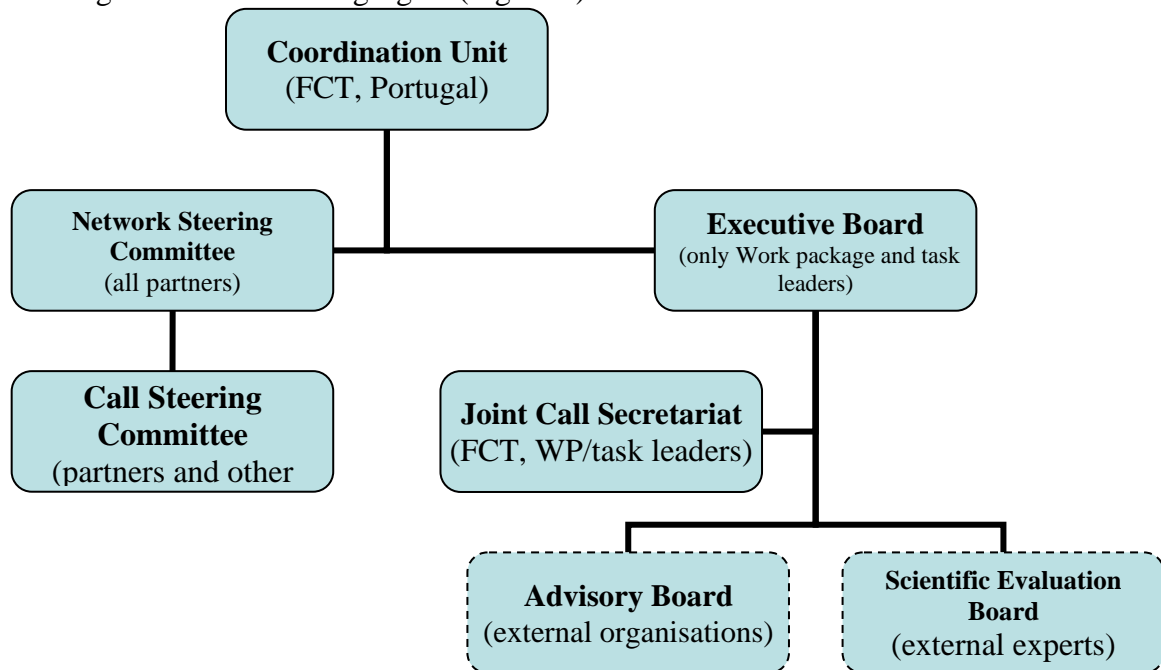


Figure 1 – Organisational structure of ERA-MIN 2.

The Advisory Board will ensure that activities throughout the five year programme will remain relevant and positively impact the sector.

3. Scope

ERA-MIN-2 joint transnational calls for R&I proposals will support demand driven research in exploration, extraction, processing/refining, recycling and substitution of raw materials covering the whole innovation chain, from basic to applied research and innovation. Thus, the research, technology development and innovation community has the opportunity to apply not only to coordinated funding in Europe but also world-wide, gaining access to leading knowledge and new markets.

The Advisory Board will provide ERA-MIN 2 with advice and guidance on the research priorities of the joint calls. It will not be responsible for the final decisions made by the Network Steering Committee.

4. Membership

4.1 Members,

Chair & Proxies

The Advisory Board (AB) will comprise a maximum of 10 persons. The Board will comprise representatives of large group, namely:

- EIT Knowledge and Innovation Community (KIC) Raw Materials
- Horizon 2020 CSA Veram (2016-2018)
- IMA-Europe - International Mining Association
- EUROMINES - European Association of Mining Industries, Metal Ores & Industrial Minerals
- PROMETIA - International non-profit association in mineral processing and extractive metallurgy for mining and recycling of raw materials
- EURIC - organisation for the recycling industries in Europe
- IUGS – International Union of Geological Sciences

Members may appoint proxies for any individual meeting but any proxy must be from the organisation represented by the Board member and must adhere to the rules and procedures outlined herein.

Any change to the Board must be approved by the ERA-MIN 2 Network Steering Committee.

4.2 Conduct

Members of the Board must;

- adhere to the highest standards of fairness, honesty and integrity and act with sound, unbiased judgement
- allocate sufficient time to fulfil their role and responsibilities;
- respect confidentiality rules;
- declare any conflict of interest and abide by ERA-MIN 2 rules and regulations
- not be personally involved in an application submitted to ERA-MIN 2 joint calls

5. Roles and responsibilities

Members of the Board will be required to provide advice and guidance on issues related to the implementation of joint calls for transnational R&I projects throughout the ERA-

MIN 2 project. In particular, the Board will advise on Scientific Evaluation Board members.

Their role is to help ensuring that international and European organisations' views and needs are included/taken into account in the definition of the topics in the joint calls, and thus guarantee an effective two-way communication.

Each member will represent the stakeholder organisation within their sector/sub-sector. Members of the Board will receive the documentation (i.e. draft call topics) by email by the Coordinator in advance of the meeting and all information provided must be kept confidential.

The Advisory Board will comment on the documents (i.e. call topics) proposed by the Call Steering Committee and other relevant committees within one week of receiving the documentation.

The members are expected to attend a meeting per year before the launch of a joint call.

6. Meetings

6.1 Agenda, Minutes and meeting procedures

The Executive Board will convene and steer the Advisory Board meetings. The ERA-MIN 2 coordinator will chair the Advisory Board meeting or appoint a representative.

The agenda and documentation for any individual meeting will be provided at least one week before any meeting. Members of the Board may include agenda items under Any Other Business (AOB).

The Advisory Board will meet once per year before the launch of a joint call once they receive the documentation (i.e. draft call topics) although inputs are also expected by email upon request.

ERA-MIN 2 will cover the costs associated to travel and accommodation of members to attend the Advisory Board meetings, if requested.

It is anticipated that the first meeting of the Advisory Board will take place on 2nd December 2016 in Brussels, taken advantage that Kick-off meeting is also scheduled for that date.



ERA-MIN 2

RESEARCH & INNOVATION PROGRAMME ON RAW MATERIALS
TO FOSTER CIRCULAR ECONOMY

ANNEX 2 – JOINT ERA-MIN 2, ERA-MIN3 AND EIT RAW MATERIALS WORKSHOP AGENDA

Welcome and Introduction to the workshop (25 minutes)

- Presentation by ERA-MIN (Dina Carrilho)
- Presentation by EIT RM (Tina Benda)

Work group discussions (35 minutes) – Moderator (Doroteja Zlobec)

Topics (Participants will join only one group)

1. Social acceptance in raw materials value chains
2. Work environment in mining
3. New business models for the raw materials sector
4. Industrial challenges in raw materials value chains
5. Raw materials critical for EU industry resilience

Results from work group discussion (45 minutes)

- Presentation and plenary discussion (5 per group, 10' discussion)

Closing remarks (5 minutes)

