



ERA-MIN3

RAW MATERIALS FOR THE SUSTAINABLE DEVELOPMENT
AND THE CIRCULAR ECONOMY

EU co-funded ERA-MIN Joint Call 2021

RAW MATERIALS FOR SUSTAINABLE DEVELOPMENT
AND THE CIRCULAR ECONOMY

CALL TEXT

Link to [«ERA-MIN3 Call»](#)

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1. About ERA-MIN3

ERA-MIN3 is a global, innovative and flexible pan-European network of research funding organisations, supported by EU Horizon 2020, that builds on the experience of the FP7 ERA-NET ERA-MIN (2011 to 2015) and ERA-MIN 2 (2016-2022).

ERA-MIN3 aims to support the European Innovation Partnership on Raw Materials (EIP RM), the EU Raw Materials Initiative and further develop the raw materials (RM) sector in Europe through funding of transnational research and innovation (R&I) activities. This will be achieved through calls designed and developed specifically for the non-fuel, non-food raw materials sector. The network will address five key objectives:

- Support and promote R&I cooperation in Europe, contributing to the objectives and the implementation of both the Raw Materials Initiative and the EIP RM Strategies, maximising the impact of the Technology Pillar of the Strategic Implementation Plan;
- Reduce fragmentation of R&I funding in the area of non-fuel, non-food raw materials across Europe and globally;
- Provide a pan-European support network and financial resources to improve synergies, coordination and collaboration;
- Improve the efficiency and impact of human and financial investment in R&I activities in the area of Raw Materials;
- Improve the competitiveness and the environmental, health and safety performance of non-fuel, non-food RM operations.

These objectives are aimed at fostering sustainable supply of RM from European sources, ensuring a level playing field in access to resources in non-EU countries and boosting resource efficiency and promoting recycling. Moreover, ERA-MIN 3 will liaise with other RM initiatives and projects to promote synergies and avoid duplication of efforts. As an example, ERA-MIN3 calls are intended to pave the way towards upscaling projects supported under the EIT Raw Materials.

The **ERA-MIN3** consortium consists of 24 funding organisations from 15 EU MS countries, 3 EU MS regions (*Hermesfond – Belgium/Flanders; FWO – Belgium/Flanders; SPW – Belgium/Wallonia; BNSF – Bulgaria; TA CR – Czech Republic; Business Finland – Finland; ETAg – Estonia; ADEME – France; ANR – France; JÜLICH – Germany; GSI – Ireland; MUR – Italy; NCBR – Poland; FCT – Portugal; UEFISCDI – Romania; CDTI – Spain; CFNA – Spain/Navarra; AEI – Spain; SAS – Slovakia; MIZS – Slovenia; Vinnova – Sweden*), one EU Associated country (*TUBITAK – Turkey*), and two non-EU countries (*PRIMA-Québec- Canada; DSI - South Africa*).

ERA-MIN3 is fully aligned with initiatives to support the EU's transition to a Circular Economy in many fields, such as the [Circular Economy Action plan](#), the [Battery Action Plan](#), and the [European Green Deal](#), by moreover answering to the United Nations Sustainable Development Goals, by addressing topics which are aiming at retaining the value of the raw materials that are used in products and returning them into the product cycle at the end of their use, keeping in mind the need for a sustainable and responsible industrial supply of primary resources to feed the circular economy.

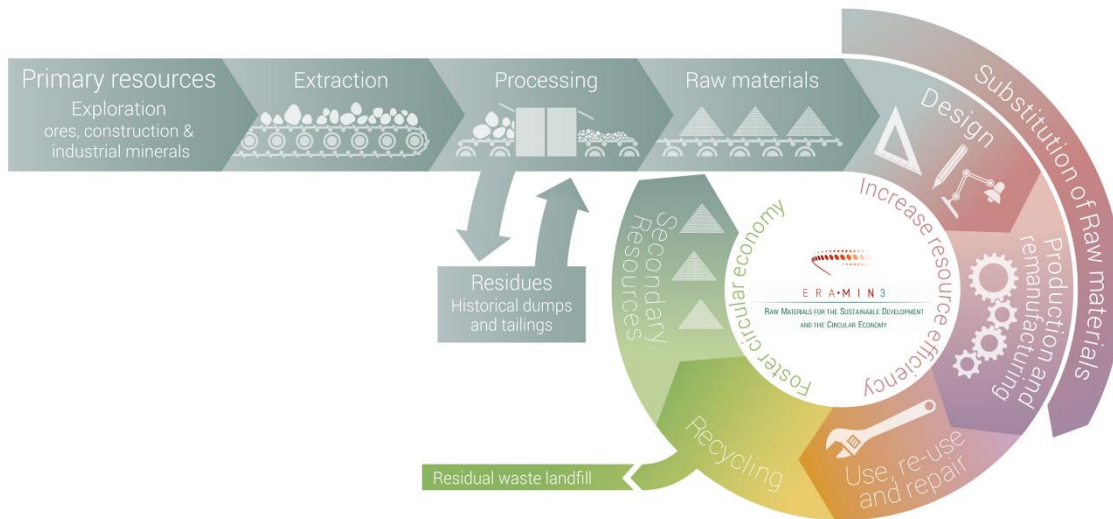


Fig. 1: ERA-MIN3 view on Raw materials within the circular economy.

ERA-MIN3 will cover the entire raw materials value chain, from sustainable exploration, extraction and processing technologies to recycling, as well as substitution of critical raw materials, in particular those contained in the EU Critical Raw Materials (CRM) list, or raw materials in products or production processes that are hazardous or difficult to recycle. There is a focus on resource efficient production and recycling that has low environmental impact and is economically feasible in the short-term. The circularity of the value chain will be ensured by designing products that are easier to maintain, repair, upgrade, remanufacture or recycle. New business models and digital technologies will be crucial for transferring research results to the market.

ERA-MIN3 will also be open to R&I projects on Battery Raw Materials, in particular concerning primary extraction and supply for batteries, as well as recycling of currently operating batteries, to secure access to Raw Materials for batteries, via sustainable sourcing and domestic production, together with resource efficiency and recycling.

Moreover, besides technological innovations, non-technological aspects will play an important role in paving the way to a circular economy: **taking into account environmental impact, policy and regulations, societal impact and public perception, health and safety issues** related to the different stages of the whole Raw Materials value chain, is a crucial challenge. The EU co-funded ERA-MIN Joint Call 2021 is the first joint call of the ERA-NET Cofund ERA-MIN3. Information and statistics on the projects funded in the previous six joint calls of ERA-MIN 2 and ERA-MIN are available at <https://www.era-min.eu/results>.

2. Participating Funding Organisations and budgets

24 Funding Organisations have agreed to allocate national/regional budgets for the ERA-MIN Joint Call 2021, see table 1 below. The total indicative call budget is almost €19.5 million.

Table 1. Participating Funding Organisations.

Country /Region	Funding Organisation	Contact person	E-mail	Budget (Euro)
Belgium/ Flanders	FWO	Toon MONBALIU	eranet@fwo.be	700 000
Belgium/ Flanders	Hermesfond /VLAIO	Elsie De CLERCQ	elsie.declercq@vlaio.be	1 000 000
Belgium/ Wallonia	SPW-Recherche	Pierre DEMOITIE	pierre.demoitie@spw.wallonie.be	500 000
Bulgaria	BNSF	Milena ALEXANDROVA Irena PEYTCHEVA	aleksandrova@mon.bg impeytcheva@gmail.com	230 000
Canada/ Québec	PRIMA-Québec	Michel LEFÈVRE	Michel.lefevre@prima.ca	700 000
Czech Republic	TA CR	Kateřina VOLFOVÁ	katerina.volfova@tacr.cz	1 000 000
estoinEston ia	ETAg	Margit SUUROJA	margit.suuroja@etagee	100 000
Finland	Business Finland	Maarit KOKKO	maarit.kokko@businessfinland.fi	1 000 000
France	ADEME	Rachel BAUDRY Hélène VARLET	rachel.baudry@ademe.fr helene.varlet@ademe.fr	500 000
France	ANR	Nela ROY	nela.roy@agencerecherche.fr	1 000 000
Germany	BMBF/JÜLICH	Holger GRUNEWALD	h.gruenewald@fz-juelich.de	2 000 000
Ireland	GSi/EPA	Aoife BRAIDEN	aoife.braiden@gsi.ie	300 000
Italy	MUR	Aldo COVELLO Maria Chiara NOTO	aldo.covello@miur.it mariachiara.noto@est.miur.it	600 000
Poland	NCBR	Dominika MICKIEWICZ	dominika.mickiewicz@ncbr.gov.pl	600 000
Portugal	FCT	Ana Luísa LAVADO, Dina CARRILHO	Analuisa.Lavado@fct.pt Dina.Carrilho@fct.pt	500 000
Romania	UEFISCDI	Mihaela MANOLE	mihaela.manole@uefiscdi.ro	600 000

Country /Region	Funding Organisation	Contact person	E-mail	Budget (Euro)
Slovakia	SAS	Martin NOVÁK Zuzana PANISOVÁ	mnovak@up.upsav.sk panisova@up.upsav.sk	240 000
Slovenia	MIZS	Doroteja ZLOBEC	doroteja.zlobec@gov.si	420 000
South Africa	DSI	Tugela MATUBATUBA	Tugela.matubatuba@dst.gov.za	400 000
Spain	AEI	Beatriz GÓMEZ	era-mat@aei.gob.es beatriz.gomez@aei.gob.es	700 000
Spain	CDTI	Milvia SOUMBOUNOU	Milvia.soumbounou@cdti.es	800 000
Spain/ Navarra	CFNA	Silvia OJER	sojertor@navarra.es sinai@navarra.es	500 000
Sweden	Vinnova	Anna OTTENHALL	anna.ottenhall@vinnova.se	1 000 000
Turkey	TUBITAK	A. Serhat YILDIRIM	azmiserhat.yildirim@tubitak.gov.tr	500 000

3. Call calendar: Important dates

The following dates apply for this Call for R&I proposal:

Call pre-announcement	30 th November 2020
Publication of the Call	15 th January 2021
Deadline for pre-proposals submission (mandatory)	1 st April 2021, 17:00 (CEST)
Communication of pre-proposals assessment	15 th June 2021
Deadline for full-proposals submission	1 st September 2021, 17:00 (CEST)
Tentative communication of full-proposal assessment	30 th November 2021
Tentative communication of selection of full proposals recommended for funding	14 th December 2021
Latest starting date of selected projects	1 st May 2022

4. Scope and topics of the Call

The **scope** of the Joint Call is needs-driven research on non-fuel, non-food raw materials (primary and secondary minerals and metals) addressing one or several areas of the circular economy, as shown in Figure 1 above. As an overarching objective, the proposed research should clearly demonstrate potential to **promote the sustainable and responsible supply, processing, production, consumption and recycling of primary and secondary raw materials in a circular**

economy, by taking into account also appropriate non-technology aspects as environmental, social, health and circular economy issues.

Proposals should deliver convincing arguments on the potential impact of their innovation and research on the efficient supply, processing, use and recycling of raw materials. They should be able to quantify the expected impact using appropriate metrics and life cycle analysis thinking. A specific work package on the follow up of these metrics should be considered in order to steer the project into the most environmentally beneficial direction.

The ERA-MIN Joint Call 2021 will address three segments of non-fuel, non-food raw materials:

- Metallic minerals
- Construction materials
- Industrial minerals

The research, development and innovation topics to be funded under the ERA-MIN Joint Call 2021 address all aspects of the non-fuel, non-food raw materials life cycle, covering both primary and secondary resources.

The call focuses on four steps of the raw materials life cycle¹, plus one horizontal cross-cutting topic on non-technology issues. The inclusion of the cross-cutting topics in proposals addressing scientific and technological developments will be considered as a strong added value for each proposal. Moreover, proposals addressing more than one topic are expected, taking into account a holistic view of the value chain in a clear circular economy approach.

Projects focusing on the following subjects are particularly encouraged:

- One, or more, of the 30 Critical Raw Materials listed in 2020 by the European Commission².
- R&I on Battery primary Raw Materials supply, such as better data on geological resources and mineral exploration, extraction and production, including by- and co-products. For example, proposals may support the evolution of processing and refining capacity for Cobalt (Co), Nickel (Ni), and graphite, together with an effort to fully exploit the European potential for Zinc (Zn) and Lithium (Li) extraction and production; towards battery-qualified grade materials, for instance, via innovative mixed metallurgical processes. Moreover, the interest of recycling crucial elements such as Co from Li-ion batteries is nowadays strong, due to the lower cost of reusing secondary RM.
- The inclusion of Big Data and ICT based tools, like robotics and automation, and the evaluation of their impact, for the important role of these new technologies to close product and materials cycles, to increase the efficiency of raw materials supply (e.g. inventories, supply chain management, automation) and foster innovative business models, open innovation and digitalisation.

¹ Nevertheless, following a systemic approach, also other parts of the production cycle which are not mentioned explicitly (e.g. distribution, use, collection) can be included within project proposals.

² [COM\(2020\) 474 - Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability](#)



- Special attention will be paid to proposals reconnecting raw materials to society. Non-technology issues will reflect the need for improvement of frameworks for the minerals industry: policy development, **public acceptance**, workflows, life-cycle analysis indicators and design of **new business models**. Therefore, applicants should describe how their project will engage with the public, **taking into account environmental, social impact and health & safety issues** related to the different stages of the RM value chain: for instance, focusing on innovative extraction techniques with a lower environmental impact, less energy- and water-intensive separation processes, substitution of chemical elements under REACH regulation or potentially hazardous substances. Proposals should provide technical solutions to overcome these issues or increase social awareness on these themes. These can span complementary technological projects or can focus on an individual aspect identified as a barrier to the development of the sector.

The **objectives and expected impacts** of the main topics supported by ERA-MIN Joint Call 2021 are listed here below:

❖ **Topic 1. Supply of raw materials from exploration and mining.**

The availability of primary resources and waste from exploration and mining activities remains a major prerequisite to satisfy the growing global demand for raw materials. Therefore, exploration and mining will not disappear in a circular economy.

Within this topic we are seeking new techniques, as well as better knowledge for the exploration, assessment and extraction of primary and secondary resources.

Proposals can address new concepts, technologies and improved models to be used in mineral exploration (understanding e.g. geophysical and geochemical techniques), upgrading geological knowledge and databases on the evolution of the lithosphere, especially in Europe. Moreover, they can target comprehensive characterisation, mapping or remediation of abandoned mine sites, including valorisation of by- or co-products in complex mineral matrixes or historical stocks contained in tailings and spoil tips.

Proposals should aim at significant or demonstrable progress towards the goal of responsible and sustainable mine development that addresses environmental and social acceptability concerns. This can be through increased efficiency in the supply of raw materials while reducing impacts on the environment. Within this approach, contributions on the remediation of former mine sites, as well as improved mine remediation solutions, are included.

Both onshore and offshore proposals will be supported (subject to national/regional regulations).

It is encouraged to incorporate for example social science contributions, environmental impact of mines and explorations, new business models, eco-efficient waste management, environmental health and site safety protections, and sustainable management of closed mines and quarries.





❖ **Topic 2. Circular Design.** The circular design of products has a high impact on resource efficiency.

Within this topic we are seeking for proposals focusing on circular product design that contribute to the efficient use of raw materials (eco-design), or the substitution of critical materials in products and components, e.g. innovative materials for green technologies, resistance in extreme conditions, use in bulk applications or in electronic devices.

Proposals aiming at the sustainable use of raw materials through innovative design and production of products and assets might include aspects like increased resource efficiency, durability, functionality, modularity, upgradability, easy disassembly and repair or the use of materials that are reusable or recyclable.

The substitution of critical raw materials provides another focus within this topic. Attention should be paid to strategies and technologies for the substitution or substantial reduction of 'substances of very high concern' (SVHCs) of the REACH regulation or substances for which a scarcity may be foreseen.

The design and production of products takes place early in the lifecycle. However, their impact becomes evident during and after use. Applicants should therefore be able to address this challenge and to quantify the expected impact of the new product design on resource efficiency, using appropriate metrics and life cycle thinking.

❖ **Topic 3. Processing, Production and Remanufacturing.** Production efficiency and remanufacturing processes in a circular economy provide a high potential to increase resource efficiency for primary and secondary sources. A major potential to increase the efficient use of raw materials is provided by resource intensive processes.

Within a circular economy vision, waste occurring during the production phase could be recycled and therefore become a resource. As an alternative to the production of new products, used products can be remanufactured and therefore contribute to a higher efficiency of the raw materials use. To adapt the circular economy approach to production may require a re-design of complete industrial processes including new business models, e.g. for remanufactured products.

In this topic we are looking for innovative technologies or methods re-designing industrial processes. For instance, proposals could address challenging subjects like metallurgical processes for low-grade or non-conventional ore deposits, bio-leaching, advanced purification/extraction processes based on bio-, hydro- or pyro-metallurgy, or a combination of them. Therefore, a full understanding of the innovation and research needs across the life cycle is required to ensure that the greatest environmental benefits can be obtained.

Proposals should address reduction of waste and/or recycling of waste, like scraps, ashes, or industrial effluents, for more direct and less energy- and resource consuming processes.

Additionally, energy efficiency, environmental, and social impact could be considered.

Proposals should be of high impact both in terms of the market opportunity they address, and the



environmental/societal and health & safety benefits they will enable.

Topic 4. Recycling and Re-use of End-of-Life Products (e.g. waste of electric and electronic equipment (WEEE), batteries, permanent magnets, complex metal alloys etc.).

It is essential to turn the raw materials value chain into a materials cycle, where dissipation and waste are avoided as much as possible. A specific challenge is the recycling of raw materials from complex products. In this topic we are seeking for proposals to address this challenge through new concepts, technologies and services which increase the supply of raw materials, especially critical raw materials, recovered from products and components at the end of their life.

To address this challenge a variety of strategies like reusing, repairing, refurbishing, repurposing, remanufacturing and recovery of raw materials are currently discussed for end-of-life or products and immovable assets (e.g. buildings, infrastructures). Nevertheless, research efforts are needed in order to provide support for applying the strategy with the highest impact on resource efficiency.

Proposals could, for instance, focus on collection and (reverse) logistic methods; efficient and innovative separation, physical sorting and pre-treating techniques; innovative and efficient hydro- and pyro-metallurgical processes for critical raw materials separation and recovery from end-of-life products. Although there is a focus on critical raw materials projects are encouraged to consider the whole range of raw materials contained in a material flow in terms of developing a working business model.

The marketing of used products or products made from recycling material may face economic, legal or psychological barriers which should be addressed if needed. Innovative business models (e.g. product-as-a-service, reuse and sharing models) will be a major driver to overcome these barriers.

At this stage decisions taken earlier during the life cycle, e.g. on design show their effects. Therefore, it is expected that the assessment of the potential impact of the proposed innovation on raw materials efficiency considers the whole life cycle of products and may include aspects of topic 2, e.g. recommendations for improved product design.

❖ **Topic 5. Cross-cutting topics** indirectly contribute to raw materials efficiency. They aim at tools, applications and services that are relevant to any part of the raw materials life cycle but can also be specifically addressed.

Therefore, within this topic we are looking for proposals addressing innovations, also non-technological, that supports the transformation to a circular economy by increasing the economic, environmental and social sustainability in the raw materials sector regarding:

- **New business models,**
- **Improvement of methods or data for environmental impact assessment,**
- **Social acceptance and trust/public perception of raw materials**
- **Environmental, social, and health & safety issues**

Proposals should address the potential presented for new, high-impact and potentially transformative

business models, environmental and/or societal benefits, or solve health & safety issues, in the raw materials sector.

For instance, a major challenge in the raw materials sector is that entrepreneurs, with novel, high-impact and potentially transformative approaches to raw materials supply, may face barriers, such as substantive investments in existing infrastructure, making the system resistant to change. Applicants are therefore encouraged to respond to this challenge and to develop new business models which may include the collaboration between various actors of the life cycle for a successful implementation of the developed technologies. Within this context digital tools are a major enabler for the exchange of information within these newly established networks of businesses and consumers.

Development of new, efficient methods of Life Cycle Analysis and stock flows, also for environmental monitoring (including real time monitoring), are encouraged.

Moreover, studies for understanding the public perception of raw materials related activities are supported, as gaining public trust in industrial activities is increasingly important in securing the raw materials supply in Europe from primary and secondary sources. For this purpose, adequate expertise both from social scientists and geoscientist/engineers/industry is essential.

The inclusion of cross-cutting topics in proposals addressing the other topics will be positively evaluated, although topic 5 can be selected as the main topic as well.


The topics and sub-topic areas are shown in Appendix I. Some examples of project ideas under each sub-topic are presented but the proposals can address other ideas not mentioned in the sub-topics.

Background information on the research needs per topic and sub-topic areas was identified by the **ERA-MIN Research Agenda**, which can be downloaded from the ERA-MIN 2 website at the following link:

https://www.era-min.eu/sites/default/files/publications/era-min_research_agenda.pdf,

and are in line with the **Strategic Implementation Plan of the European Innovation Partnership on Raw Materials**³.

Please note that not all topics are supported by all Funding Organisations, see summary in Table 2.

 means that there are some related restrictions. Always check with the corresponding national/regional Funding Organisation for restrictions.

³ https://ec.europa.eu/growth/sectors/raw-materials/eip/strategic-implementation-plan_en

Table 2: Summary of the main call topics supported by the Funding Organisations.

Country/region	Funding Organisation	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5
Belgium/ Flanders	FWO	YES	YES	YES	YES	YES
Belgium/ Flanders	Hermesfond /VLAIO	YES	YES	YES	YES	NO
Belgium/ Wallonia	SPW-Recherche	YES	YES	YES	YES	YES
Bulgaria	BNSF	YES	YES	YES	YES	YES
Canada/Québec	PRIMA-Québec	YES	YES	YES	YES	⚠
Czech Republic	TA CR	YES	YES	YES	YES	YES
Estonia	ETAg	YES	YES	YES	YES	YES
Finland	Business Finland	YES	YES	YES	YES	YES
France	ADEME	NO	YES	YES	YES	YES
France	ANR	⚠	YES	YES	YES	⚠
Germany	BMBF/JÜLICH	NO	YES	NO	YES	⚠
Ireland	GSI/EPA	YES	YES	YES	YES	YES
Italy	MUR	YES	YES	YES	YES	YES
Poland	NCBR	YES	YES	YES	YES	NO
Portugal	FCT	YES	YES	YES	YES	YES
Romania	UEFISCDI	YES	YES	YES	YES	YES
Slovakia	SAS	YES	YES	YES	YES	YES
Slovenia	MIZS	YES	YES	YES	YES	YES
South Africa	DSI	YES	YES	YES	YES	YES
Spain	AEI	YES	YES	YES	YES	NO

Country/region	Funding Organisation	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5
Spain	CDTI	YES	YES	YES	YES	NO
Spain/Navarra	CFNA	YES	YES	YES	YES	YES
Sweden	Vinnova	YES	YES	YES	YES	YES
Turkey	TUBITAK	YES	YES	YES	YES	YES

5. Who may apply

This call for proposals is aimed at all actors in the raw materials value chain, including universities, research institutes, companies, non-governmental organisations (NGOs) and public authorities that can contribute to the objectives of ERA-MIN3 and who meet the eligibility criteria in section 7, as well as national/regional regulations (see Appendix IV).

A consortium must consist of at least **three project partners** eligible and requesting funding from the participating Funding Organisations of at least **three different countries** whereof at least **two are an EU Member State or an Associated Country participating in the Call**. Please note that not all participating Funding Organisations are EU Member States, namely Canada (Québec) and South Africa and the only EU Associated Country participating in the call is Turkey.

Organisations from countries/regions not participating in the Call can be partners of the consortium on the condition that they provide evidence of the availability of their own funds to cover their project activities.

There is no limit in the maximum consortium size, but it should be suitable for the level and complexity of the project and each partner should have a significant contribution for the transnational added value of collaboration.

Consortia involving both academic and industrial organisations are particularly encouraged to apply although purely public or private partnerships are also possible. Please check the funding regulations on national or regional level (Appendix IV).

Consortia may include players from the public and private sector with different backgrounds, e.g. physical scientists, engineers and technology developers, but also social scientists and policy advisors working closely together and covering different parts of the raw materials cycle.

Project consortia covering the entire innovation chain from idea to end-user/market are considered positive as well as consortia with actors traditionally working in other industries, so that more ground-breaking innovations can be created through new approaches.

ERA-MIN Joint Call 2021 supports gender equality, therefore applicants should consider gender equality in, for example:

- Selection of project manager
- Composition of project group
- Division of work, power and influence in the project
- Involvement of target groups

6. What do we fund

ERA-MIN Joint Call 2021 addresses all aspects of the non-fuel, non-food raw materials life cycle, covering both primary and secondary resources. It is encouraged to include cross-cutting topics in topics 1-4, as well as addressing more than one topic to get a more holistic view of the value chain (if allowed by funding organisations).

In line with ongoing efforts within a circular economy approach, ERA-MIN Joint Call 2021 will emphasise the contribution of proposals to the EU's transition to a circular economy by funding projects aiming at retaining the value of the raw materials that are used in products.

Overall, ERA-MIN Joint Call 2021 can fund basic research, applied research and experimental development projects that are 12-36 months long. However, **not all funding agencies can fund all types of research (or TRL) or 12-36 months**, see Table 3.







 means that there are some related restrictions. Always check with the corresponding national/regional Funding Organisation for any restrictions and 'State Aid Rules'.

Table 3: Type of research and entities eligible for funding by the participating Funding Organisations.

Country/region	Funding Organisation	Fundamental/Basic research	Industrial /Applied research	Experimental research	TRL	Type of entities eligible for funding	Project duration
Belgium/ Flanders	FWO	YES		NO	1-4/5	Academia	24-36 months
Belgium/ Flanders	Hermesfond /VLAIO	YES	YES	YES	2-7	Companies	
Belgium/ Wallonia	SPW- Recherche	NO	YES	YES	4-7	All	
Bulgaria	BNSF	YES	NO	NO	1-4	Academia	36 months
Canada/	PRIMA-	YES	YES	YES	1-9	Academia, CCTT, Public	12-36 months

Country/region	Funding Organisation	Fundamental/Basic research	Industrial /Applied research	Experimental research	TRL	Type of entities eligible for funding	Project duration
Québec	Québec					research center	
Czech Republic	TA CR	NO	YES	YES	3-9	All	12-36 months
Estonia	ETAg	YES	YES	YES	1-6	All	
Finland	Business Finland	NO	YES	YES	3-7	All	
France	ADEME	YES	YES	YES	4-7	All	
France	ANR	YES	YES	NO	1-5	All	12, 24, 36 months
Germany	BMBF/ JÜLICH	NO	YES	YES	4-8	All	12-36 months
Ireland	GSI/EPA	YES	YES	YES	1-7	Academic and companies	
Italy	MUR	YES	YES	YES	1-7	Universities , Research institution, Companies	
Poland	NCBR	NO	YES	YES	2-9		
Portugal	FCT	YES	YES	YES	1-8	All	12-36 months
Romania	UEFISCDI	YES	YES	YES	1-9	All	36 months
Slovakia	SAS	YES	YES	YES	1-7	Academia	
Slovenia	MIZS	YES		NO	1-6	All	
South Africa	DSI	YES	YES	YES	1-9	All	
Spain	AEI	YES		YES	All	Academia and R&D Centres	
Spain	CDTI	NO	YES	YES	4-7	Companies	12-36 months
Spain/Navarra	CFNA	YES	YES	YES	All	All	18-36 months

Country/region	Funding Organisation	Fundamental/Basic research	Industrial /Applied research	Experimental research	TRL	Type of entities eligible for funding	Project duration
Sweden	Vinnova	YES	YES	YES	1-7	All	
Turkey	TUBITAK	YES	YES	YES	1-8	All	

TRL – Technology Readiness Level (as defined in Appendix II).

7. Eligibility criteria

The pre-proposals and full-proposals have to meet the following eligibility criteria, as detailed further below, as well as the national/regional funding regulations (see Appendix IV).

ERA-MIN Eligibility Criteria	
Pre-proposal submission deadline	<ul style="list-style-type: none"> ➤ The pre-proposals must be submitted, only via electronic form through the ERA-MIN Electronic Submission System, by the lead researcher of the consortium coordinator no later than 1st April 2021, at 17:00:00 CEST⁴;
Full-proposal submission deadline	<ul style="list-style-type: none"> ➤ Upon invitation, the full-proposals must be submitted, only via electronic form through the ERA-MIN Electronic Submission System, by the coordinator of the consortium no later than 1st September 2021, at 17:00:00 CEST.
Consortium composition	<ul style="list-style-type: none"> ➤ Each consortium must comprise at least three independent legal entities eligible and requesting funding from the participating Funding Organisations of at least three different countries where at least two countries are EU Member States named in this call or EU Associated Country (Turkey). ➤ At least half of the partners in a consortium must belong to countries participating in the Call.
Applicant/Coordinator	<ul style="list-style-type: none"> ➤ The coordinator of the consortium must request funding from, and be established in, a country or region of a Funding Organisation participating in the Call.
Applicant/	<ul style="list-style-type: none"> ➤ A Lead Researcher may only participate as a coordinator in one proposal (i.e. if a Lead Researcher coordinates one proposal, he/she may only

⁴ 17.00 CEST/Central European Summer Time

ERA-MIN Eligibility Criteria	
Lead researcher	participate in other proposals as a lead researcher/key personnel of a consortium partner).
Applicant	➤ Researchers from the participating Funding Organisations or of the Scientific Evaluation Board (SEB) cannot apply to this Call. ⁵
Eligible consortium/ applicant	<ul style="list-style-type: none"> ➤ Each partner requesting funding must comply with the national/regional funding rules and regulations of their respective Funding Organisation to ensure the eligibility of the consortium proposal (see Appendix IV). ➤ Please note that this may include sending additional information/documentation to your national/regional Funding Organisation.
Consortium work effort balance	➤ The total efforts of partners from one country in a proposal cannot exceed 70% of the total project efforts (measured in person-months (PM)). PM per partner should be clearly stated in the respective table of Form A pre-proposal.
Project duration	➤ The project duration should be a minimum of 12 months and should not exceed 36 months (subject to national/regional regulations).
Pre-proposal and full-proposal templates	➤ ERA-MIN Templates must be used, i.e. Forms A, Form B and Form C, Ethics issue table and CV's of lead researcher/key personnel. All fields of the pre-proposal and full-proposal technical descriptions must be filled in. A Guide for Proposal Submission, including all templates, is available at https://www.era-min.eu/joint-call/era-min-joint-call-2021
Pre-proposal length	➤ The total proposal length (Form A) cannot exceed 6 pages, excluding the references. The images and tables must be included in the maximum page length.
Full-Proposal length	➤ The total proposal length (Form A) cannot exceed 30 pages, excluding the Gantt chart, the references, the CVs and the Ethics issues table. All images and tables must be included in the maximum page length.
Applicant requesting funding	➤ All applicants requesting funding must provide a statement of commitment duly signed by the legal representative of the organisation or the Lead Researcher, Form B .

⁵ As an exception Forschungszentrum Jülich GmbH (JÜLICH) is eligible to apply since measures were already established to avoid any possible conflict of interest with Project Management Jülich as a beneficiary of ERA-MIN3, which is a largely independent unit within the research centre Forschungszentrum Jülich GmbH (JÜLICH).

ERA-MIN Eligibility Criteria	
Applicant not requesting funding	➤ Applicants not requesting funding , or not eligible for national/regional funding, can be partners of the consortium on the condition that they provide evidence of the availability of their own funds to cover their costs by providing a signed statement duly signed by the legal representative of the organisation or the Lead Researcher, Form C .
CV template	➤ A maximum of three CVs (of lead researcher and two key personnel) per consortium partner is allowed and the ERA-MIN CV template must be used and cannot exceed two pages per person.
Language	➤ The language of the proposal is English.

Not all Funding Organisations can fund projects related to all topics, and funding eligibility criteria may differ between countries/regions (see Appendix IV).

Applicants are responsible for ensuring that the Funding Organisation for their country/region has confirmed its participation in the relevant topic and sub-topic for their proposal, and to check which type of organisation can be funded at what level of support and the maximum budget available.

A summary of some national/regional funding rules is provided in Table 2 and 3, as well as in the national/regional funding regulations (Appendix IV) but **applicants are obliged to check with their national/regional contact point (Table 1) for their national/regional funding regulations.**

8. Call procedures: submission, evaluation, selection, funding and reporting

There will be a two-stage submission procedure: pre-proposals and full-proposals. All lawful steps will be taken to ensure confidentiality of information and documents obtained during the submission, evaluation and selection procedures of the Call.

8.1. How to apply

Proposal has to be submitted via the ERA-MIN Electronic Submission System. Access to the system will be provided on the website of the EU co-funded ERA-MIN Joint Call 2021: <https://www.era-min.eu/joint-call/era-min-joint-call-2021>.

Registration

1. The coordinator (Partner 1), who will represent the consortium, will have to register at the ERA-MIN Electronic Submission System before submitting a proposal.
2. Once registered, the coordinator will receive a registration email with the login link.
3. The coordinator will need to register the partners of the consortium (name and e-mail).
4. After registration, all the partners will receive an email to activate their account.
5. With his/her account, each partner will enter his/her own profile.

Pre-proposal form

A joint transnational pre-proposal shall be prepared in English by the consortium and submitted via the ERA-MIN Electronic Proposal Submission System by the lead researcher representing the coordinator. The pre-proposal submission is mandatory and must be submitted no later than **1st April, 2021 at 17:00:00 CEST (Brussels time)**.

If required by the national/regional regulations, submission forms or other documents must be submitted directly also to the participating Funding Organisations according with their deadlines. **Please consult your regional/national contact point (Table 1) for further details.**

The pre-proposal must be filled in by the coordinator, except for the partner's profiles. ERA-MIN templates for the technical description of the proposal (6 pages, Calibri, 11pt, single spaced; the template's margins of the page should be kept) and annexes are available at <https://www.era-min.eu/joint-call/era-min-joint-call-2021>

Signed Statement of Commitments from all partners requesting funding (Form B) and Statements of Own Funding (Form C) from partners not requesting funding must be uploaded by each partner as annexes to the proposal. All partners have the duty to ensure that Form B or Form C are signed and uploaded in due time. Resubmitting the proposal before the submission deadline is possible.

Full-Proposal form

Full-proposals must be submitted by the coordinator no later than **1st September 2021, at 17:00:00 CEST (Brussels time)**. Full-proposals will be accepted only from those coordinators explicitly invited after communication of pre-proposal assessment.

ERA-MIN templates for the technical description of the full-proposal (30 pages, Calibri, 11pt, single spaced; the template's margins of the page should be kept) and annexes are available at <https://www.era-min.eu/joint-call/era-min-joint-call-2021>

After the pre-proposal selection no major changes are possible (main objective, consortium, and budget). Only under certain conditions after the pre-proposal selection a revision of the overall application is allowed to a certain extent. In any case, all changes from pre- to full-proposal have to be coordinated with all involved Funding Organisations by the coordinator. As some Funding Organisations do not allow changes, partners should be advised to make sure that the major information given in the pre-proposal does not need any revision before submitting the full-proposal.

8.2 Evaluation procedures

The evaluation procedures are designed to identify the best proposals in terms of scientific excellence, impact, quality and efficiency on the implementation, as thoroughly and accurately as possible; and to undertake the assessment in a fair, transparent and homogeneous way for all proposals submitted to the Call.

The quality assessment of the submitted proposals will be performed by the Scientific Evaluation



Board (SEB) composed of international independent expert reviewers that sign Declarations of Confidentiality and Conflict of Interest.

The evaluation process will be monitored by an independent observer who will prepare a report on the assessment process for the European Commission.

Evaluation stage 1: Pre-Proposals

The submitted pre-proposals will be subject to an eligibility check performed at a call level by the Joint Call Secretariat (JCS) and at a national/regional level by the Call Steering Committee (CSC) members to confirm compliance with national/regional priorities, rules and regulations.

Each eligible pre-proposal will be allocated to three SEB experts designated according to their expertise relevant for the topic of the pre-proposal.

Pre-proposals will be assessed based on the three main evaluation criteria: 1) Scientific Excellence; 2) Impact and 3) Quality and Efficiency of the Implementation (see section 9 below)

A ranked list of pre-proposals will be produced with overall rating at, or above, 9 and with all the main evaluation criterion scores at, or above, 3. Proposals not meeting the thresholds will not be recommended to submit a full-proposal.

The selection of pre-proposals for the stage 2 will be decided at a CSC consensus meeting to finalise the stage 1 pre-proposal assessment. A list of eligible proposals will be invited to submit full-proposals for Stage 2.

Evaluation stage 2: Full-Proposals

The submitted full-proposals will be subject to an eligibility check performed by the JCS and by the CSC to confirm compliance with national/regional priorities, rules and regulations.

Each full-proposal will be evaluated based on three main evaluation criteria (see Section 9 below) by a panel of, at least, three independent experts.

At the SEB meeting, a ranking list will be established for eligible full-proposals with overall rating at, or above, 10 and with all the main evaluation criterion scores at, or above, 3. Proposals not meeting the thresholds will not be recommended for funding by the SEB.

8.3. Selection procedures and feedback to applicants

The CSC will strive to ensure that the top-ranked full-proposals are funded to the maximum extent possible. The selection of full-proposals will be based on the ranking list of eligible full-proposals provided by the SEB meeting and the available national/regional budgets until exhaustion of public funds (EU contribution included). A CSC consensus meeting will be organised to finalise Stage 2 and to elaborate the “joint selection list” of projects recommended for funding.

All coordinators will receive feedback on the results of the evaluation process after both Stage 1 and Stage 2, including the Evaluation Summary Reports. The coordinators will be instructed to communicate the decisions to the consortium partners.

Applicants may submit a complaint to the JCS (eramin@fct.pt) until one week after the communication of the full-proposals assessment if any procedural error may be perceived to exist.

Outcomes of the review committee will be provided one week later.

9. Evaluation criteria

Pre-proposals and full-proposals will be evaluated based on three main evaluation criteria: 1) Scientific Excellence, 2) Impact and 3) Quality and Efficiency of the Implementation:

1. SCIENTIFIC EXCELLENCE

- Clarity and pertinence of the objectives;
- Soundness of the concept, and credibility of the proposed methodology;
- Extent that the proposed work is beyond the state of the art, and demonstrates innovation potential (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models);
- Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge **(only for stage 2)**

2. IMPACT

- The extent to which the outputs of the project would contribute at the European and/or International level to the expected impacts mentioned in the ERA-MIN work programme under the relevant topic;
- Any substantial impacts that would enhance innovation capacity, create new market opportunities, strengthen competitiveness and growth of companies, address issues related to barriers/obstacles, and any framework conditions such as regulation, standards, public acceptance, workforce considerations, financing of follow-up steps, cooperation of other links in the value chain, or bring other important benefits for society **(only for stage 2)**;
- Quality of the proposed measures to exploit and disseminate the project results (including management of IPR), and to manage research data where relevant **(only for stage 2)**;
- Quality of the proposed measures to communicate the project activities to different target audiences **(only for stage 2)**;
- Support the development of technological solutions and services for the implementation of the Strategic Implementation Plan of the European Innovation Partnership on Raw Materials and the ERA-MIN Research Agenda;
- Supporting the development of non-technological solutions to address economic, environmental, social impact and health & safety issues, within a life cycle analysis approach, or the development/deployment of tools, applications, and services enabling circular economy strategies **(only for stage 2)**;
- How well the project results will benefit both women and men (or contribute to a gender equal societal development) **(only for stage 2)**.

3. QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

- Quality and effectiveness of the work plan, including extent to which the resources

assigned to work packages are in line with their objectives and deliverables (**only for stage 2**);

- Appropriateness of the management structures and procedures, including risk and innovation management (**only for stage 2**);
- Quality and complementarity of the participants and extent to which the consortium as whole brings together the necessary expertise;
- How well the team (key persons) is composed regarding gender distribution, as well as the distribution of power and influence between women and men (**only for stage 2**);
- Appropriateness of the allocation of tasks, ensuring that all participants have a valid role and adequate resources in the project to fulfil that role (**only for stage 2**).

Evaluation scores will be awarded to the three main evaluation criteria and not for the different sub-criteria. Each main evaluation criterion is rated using the 0-5 scale (half-points are not allowed):

0 — The proposal fails to address the criterion or cannot be assessed due to missing or incomplete information (unless the result of an ‘obvious clerical error’).

1— Poor: the criterion is inadequately addressed or there are serious inherent weaknesses

2—Fair: the proposal broadly addresses the criterion but there are significant weaknesses

3—Good: the proposal addresses the criterion well but with a number of shortcomings

4—Very good: the proposal addresses the criterion very well but with a small number of shortcomings

5—Excellent: the proposal successfully addresses all relevant aspects of the criterion; any shortcomings are minor.

The threshold for individual criterion is 3. The overall rating is the sum of the individual criterion scores (0-15).

For the evaluation of pre-proposals, the three main evaluation criteria will apply but with fewer sub-criteria (those indicated as “only for stage 2” will NOT be considered).

The overall threshold for pre-proposals will be 9.

The coordinators will receive the results of the pre-proposal assessment including the peer-review reports and will be able to address the evaluators’ questions in the full-proposals.

For the evaluation of full-proposals, the overall threshold, applying to the sum of the three individual scores, will be 10. Proposals not meeting the thresholds will not be recommended for funding by the SEB.

10. Terms and conditions for grant agreement

10.1 Funding decisions

The list of funded projects will be published on the ERA-MIN website.

For proposals recommended for funding, the partners will be asked to contact the respective Funding Organisation for further instructions regarding national/regional internal procedures. The grant preparation phase is carried out following the usual rules of each Funding Organisation.

Each beneficiary will have a separate funding contract/ grant agreement according to national/regional regulations with the appropriate national/regional Funding Organisation. Changes to the composition of research consortia or to the budget cannot occur during the contract/letter of grant. The beneficiaries shall inform the JCS and the Funding Organisations of that project of any event that might affect the implementation of the project.

The partners of the projects selected for funding must fix a common project start date, which will be the reference date for annual and final project reports. It is expected that grant preparation may take up to 3-4 months after the notification of results. The latest starting date is **1st May 2022**. All funded projects must be completed and reported back within the lifetime of the ERA-MIN, at least 6 months before the end of ERA-MIN3 (February 2025).

10.2 Consortium Agreement

The beneficiaries of a project selected for funding must sign a **Consortium Agreement (CA)** for cooperation, preferably before the official project start date but no later than six months after the official project start date, considering that some Funding Organisations cannot conclude the grant agreements without a signed CA. Each Funding Organisation will indicate when they expect the CA and how to submit it. A copy of the duly signed CA should be sent to the JCS and the Funding Organisations if required by national/regional regulations (see Appendix IV).

The purpose of the CA is to ensure a well-functioning research collaboration and protection of partners' rights and obligations. Moreover, the CA should provide for a decision making process to deal with all relevant issues during the project lifetime. Models of CA are available (<http://www.desca-2020.eu/>). Nevertheless, the consortium is free to define its own CA subject to applicable legal and regulatory provisions. For guidance, the following items are usually addressed in a CA:

- Purpose of and definitions used in the CA;
- Common start date of the research project;
- Project structure and project management;
- Detailed identification of partners' contributions (financial contributions, Intellectual Property Rights' constitutions, personnel, etc.);
- Role and responsibilities of the project coordinator and the partners among themselves (e.g.; a proper communication and transmission of information within the project consortium) and towards the Funding Organisations and the European Commission, if applicable;
- Decision making process within the consortium properly reflecting the weight of each partner in the consortium (i.e., at proportion of partners' respective contributions);
- Resources and funding (e.g., each partner is responsible of the use of its own funding and must inform officially the whole consortium of resources difficulties in driving the

work);

- Confidentiality and the rules for publishing (e.g., priority to patents as a first option and then requirement of a consortium decision before publication; mandatory information of all the partners before any kind of external communication. Decision to take by the consortium regarding the list of names as authors of the publication (all the names or solely the direct contributors);
- Management of Intellectual Property Rights (IPR): identification of pre-existing IPR/Background; allocation of IPR and access to IPR among partners at proportion of their respective contributions;
- Handling of internal disputes;
- The liabilities of the project partners.

The national/regional Funding Organisations shall have the right to use documents, information and results submitted by the research partners and/or to use the information and results according to their national/regional rules on IPR.

10.3 Monitoring and reporting procedures

Beneficiaries must ensure that all project publications etc. include a proper acknowledgement to ERA-MIN3 co-funded by the Horizon2020 programme of the European Union, and the respective Funding Organisation.

On behalf of the consortium, the coordinators of the funded projects will submit **annual and final reports** in English via an Electronic Monitoring System to the JCS that contain information on scientific and administrative aspects. In addition, each beneficiary in a selected funded project must report to their respective national/regional Funding Organisation, according to their administrative funding rules. The beneficiaries are instructed to immediately contact the coordinator, the Funding Organisations involved and the JCS with any contingency that may arise.

This data base respects appropriate and secure use of material and data according to the application of common standards, following the guidelines on data management in Horizon 2020. The collected data will require a prior informed consent, will be protected and secured, in order to avoid a malevolent use of it.

The mid-term scientific evaluation exercise of funded projects will be based on the annual project reports and presentations made by the coordinators at the mid-term Seminar with the participation of the CSC members and invited stakeholders. As a result, the CSC may propose the continuation, the re-organisation or the suspension of the research project activities. Accordingly, travel expenses to attend this Seminar and the final Seminar should be included in the proposal budget plans, if eligible for the Funding Organisations.

The final scientific evaluation of funded projects will be organised under the ERA-MIN3 Final Conference based on the final project reports and presentations made by the coordinators.

The final assessment of results will be made available on the ERA-MIN website and a wider dissemination through other relevant means will be carried out.

The representative of the coordinator should attend a minimum of two meetings organised by ERA-MIN3 (mid-term and final seminars). In addition, the beneficiaries are expected to participate and contribute to any communication activity initiated by ERA-MIN3 in the funding period and beyond.

11. Open Access and Open Data

The optimisation of the impact of publicly-funded scientific research is of fundamental importance to improve conditions to i) minimise the time spent searching for information and accessing it, ii) be able to speed up scientific progress, and iii) make it easier to cooperate across and beyond the European Union.

Open Access recommendations for all scientific publications produced by the funded projects will support Green Open Access (immediate or delayed open access provided through self-archiving), and/or Gold Open Access (immediate open access provided by a publisher) only depending on cost eligibility. In the case of Green Open Access, partners will (as soon as possible and at the latest on publication) deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a repository for scientific publications. In addition, partners will ensure open access to the deposited publication and bibliographic metadata.

In relation to Open Data, the funded projects will be recommended to submit metadata on all the data resources directly generated by the project on the Raw Material Information System (RMIS) of JRC (<https://rmis.jrc.ec.europa.eu/>), as well as additional information on how these data will be exploited, if and how data will be made accessible for verification and re-use, and how it will be curated and preserved. Additionally, we encourage the researchers to register online at “The Green Best Practice Community” of JRC (<https://greenbestpractice.jrc.ec.europa.eu/>) and propose case studies and best practices. Metadata and additional information will be made publicly available via the ERA-MIN website. ERA-MIN3 will comply with the Protection of Personal Data Requirements by following the ethical standards and guidelines of Horizon 2020 and applicable EU and national law.

APPENDIX I - Sub-topic areas for R&I. Some examples of project ideas under each sub-topic are presented but the proposals can address other ideas not mentioned in the sub-topics.

1. Supply of raw materials from exploration and mining	
1.1	Exploration, e.g. <ul style="list-style-type: none"> • Improved understanding of primary and secondary raw materials resources for securing the supply chain, • Non-invasive exploration techniques • Tools for identifying resources and improving mineral resource modelling, • Innovative approaches and tools for ore characterization • Concepts and methodologies for assessing mineral resource supply risks
1.2	Mining operations, e.g. <ul style="list-style-type: none"> • Smart and eco-efficient technologies for mining • Extraction of raw materials from historical dumps and tailings • Enhanced landfill mining • Technologies for more efficient and safer extraction of resources incl. intelligent mining
1.3	Mine closure and reclamation, e.g. <ul style="list-style-type: none"> • Remediation after mine closure with field demonstration at real scale • Predictions of mine closure long-term performance • Long-term monitoring systems
2. Circular Design	
2.1	Product design for increased raw material efficiency
2.2	Product design for reuse or extended durability of product, e.g. <ul style="list-style-type: none"> • Increase modularity, easy disassembly • Increase durability, upgradability, easy repair • Use of materials that facilitate reuse



2.3	<p>Product design to promote recycling, e.g.</p> <ul style="list-style-type: none"> • Easy disassembly • Use of materials that are recyclable
2.4	<p>Product design for critical materials substitution, e.g.</p> <ul style="list-style-type: none"> • Developing products, services and technologies with same functionalities avoiding critical materials, or by substituting the functionality itself • Replace 'substances of very high concern' (SVHCs) of the REACH regulation • Reduce or avoid the use of materials with low abundance and/or difficult/risky supply • Substitution of primary raw materials with secondary raw materials
<p>3. Processing, Production and Remanufacturing</p>	
3.1	<p>Increase resource efficiency in resource intensive production processes, e.g.</p> <ul style="list-style-type: none"> • Increase material and energy efficiency of ore processing • Overcome metallurgical challenges for metal production from primary and secondary sources • Valorisation of by-products, co-products • Re-design production cycles, networks and cascades
3.2	<p>Increase resource efficiency through recycling of residues or remanufacturing of used products and components, e.g.</p> <ul style="list-style-type: none"> • Scrap metals • Residues from manufacturing • Tailings from mining • Innovative technologies and business models for remanufacturing
3.3	<p>Increase resource efficiency using information and communication technologies (ICT), e.g.</p> <ul style="list-style-type: none"> • Supply chain management across the whole life cycle • Management of production cycles, networks or cascades • Smart technologies for processing, production and remanufacturing (e.g. sensor-based sorting of metals scrap, efficient characterisation of used products)
<p>4. Recycling and Re-use of End-of-Life products and assets</p>	
4.1	<p>End-of-life products collection and (reverse) logistics</p>



4.2	End-of-life products pre-processing: pre-treatment, dismantling, sorting, characterisation, e.g. <ul style="list-style-type: none">• Efficient characterisation and separation of products and components for re-use or recycling
4.3	Reuse, repair, refurbishing, repurposing and remanufacturing of End-of-Life products, e.g. <ul style="list-style-type: none">• Decision support for choosing the strategy with highest impact on a lifecycle basis• Overcome barriers for second-life products• New business models, e.g. product-as-a-service, reuse and sharing models
4.4	Recovery of raw materials from End-of-life products, e.g. <ul style="list-style-type: none">• Recover metals and rare earth elements from urban mines via innovative, clean and environmental-friendly processes (hydrometallurgy, pyrometallurgy...) and separation techniques• Develop comprehensive strategies to increase the recovery of raw materials from relevant material flows containing different raw materials
4.5	Recovery of raw materials from End-of-life immovable assets, e.g. buildings <ul style="list-style-type: none">• Recover materials with high mass flows, e.g. construction materials, ashes
4.6	Increase recycling or reuse through information and communication technologies (ICT), e.g. <ul style="list-style-type: none">• Databases and models on raw materials in buildings, infrastructure and products• IT-based tools for efficient management of supply chains across the whole life cycle• Smart recycling technologies (e.g. sensor-based sorting)• Simulation of different re-use and recycling pathways applying a life cycle perspective
5. Cross-Cutting Topics	
5.1	New business models (implementing circular economy aspects), e.g. <ul style="list-style-type: none">• New business models for resource recovery, remanufactured products, product life extension, sharing platforms, etc• Tools, applications and services that enable circular economy business models• Development of digital tools for enabling new collaborations within the product life cycle.
5.2	Improvement of methods or data for environmental impact assessment (e. g. LCA - life-cycle analysis) <ul style="list-style-type: none">• Studies on flows of mineral resources (e. g. MFA - material-flow analysis)



5.3	<i>Social acceptance and trust/public perception of raw materials, e.g.</i> <ul style="list-style-type: none">• <i>Public perception for activities associated with raw materials supply</i>• <i>Standardized social science methodologies for gathering/analysing data in different countries</i>• <i>Case studies</i>
5.4	<i>Health and safety issues</i> <ul style="list-style-type: none">• <i>Avoid pollution issues in mine operations or mine recoveries</i>• <i>Pollutants recovery</i>• <i>Eliminate hazardous materials or toxic substances</i>



ERAMIN 3

RAW MATERIALS FOR THE SUSTAINABLE DEVELOPMENT
AND THE CIRCULAR ECONOMY

APPENDIX II Technology Readiness Level (H2020 definition)

TRL 1 – basic principles observed

TRL 2 – technology concept formulated

TRL 3 – experimental proof of concept

TRL 4 – technology validated in lab

TRL 5 – technology validated in relevant environment

TRL 6 – technology demonstrated in relevant environment

TRL 7 – system prototype demonstration in operational environment

TRL 8 – system complete and qualified

TRL 9 – actual system proven in operational environment



APPENDIX III Definitions

Applicant: is a legal entity, represented by a Lead Researcher that forms a consortium at the stage of proposal submission.

Beneficiary: is a legal entity, represented by a Lead Researcher, member of a consortium selected for funding that receive financial support from the respective national/regional Funding Organisation.

Call: Refers to the EU co-funded ERA-MIN Joint Call 2021 opening on January 15, 2021 with a total budget of nearly € **19.5 million**.

Call Steering Committee (CSC): Comprises representatives of the Funding Organisations that have committed national/regional funds to support the selected R&I projects. It supervises the whole Call procedure and agrees on the final list of proposals recommended for funding. It supervises the activities of the Joint Call Secretariat.

Consortium: Group of legal entities, each represented by a Lead Researcher, that are part of a joint collaborative transnational R&I project proposal submitted to the Call or a project selected for funding.

Coordinator: One partner of the consortium represented by a Lead Researcher, who will be responsible for the internal scientific management of the project, intellectual property rights management, project reporting towards the JCS and CSC and will represent the consortium externally.

Funding Organisations: are responsible for providing funding under relevant rules and regulations to the beneficiaries from the respective country/region.

Joint Call Secretariat (JCS): Is responsible for the implementation of the Call and the follow-up phase until the funded projects and all reporting requirements have ended. All submitted proposals are collected by the JCS, which makes them available to the CSC and the reviewers of the Scientific Evaluation Board. The JCS handles the communication with the applicants, reviewers, CSC and beneficiaries. The JCS is hosted by FCT (Foundation for Science and Technology), in Lisbon (Portugal) with the support of Ptj (Germany) regarding the ESS.

Key Personnel: is a team member person of an applicant or a beneficiary.

Lead Researcher: is the main responsible person of a legal entity and is the contact point with the corresponding national/regional Funding Organisation and the JCS.

Partners: legal entities, each represented by a Lead Researcher within a department or institute from universities, research organisations, companies etc., forming a consortium.

Scientific Evaluation Board (SEB): Panel of internationally independent recognised scientific experts responsible for the quality assessment of the submitted proposals. SEB members will not submit or participate in proposals within this Call and must sign declarations of confidentiality and of conflict of interest.

APPENDIX IV National/regional funding regulations

Belgium/Flanders -- FONDS VOOR WETENSCHAPPELIJK ONDERZOEK-
VLAANDEREN (FWO)

a) Regional eligibility criteria

Regional Contact Point	Name: Toon Monbaliu Advisor research affairs Tel: +32 2 550 15 70 e-mail: eranet@fwo.be www.fwo.be
Eligible entities	Both the FWO Strategic Basic Research (SBO) and junior/senior research project (FO) funding channels are integrated in this call, each with specific regulations. It is, in the light of the projects eligibility, of utmost importance to respect their particular regulations. For example when it comes to the mandatory valorisation aspect for the SBO projects (see 'Additional eligibility criteria'). <u>Who can be eligible for FWO funding?</u> The eligibility of institutions and its researchers can be verified in the relevant regulations: → For junior/senior research projects, see articles 10-12 → For Strategic Basic Research, see articles 4-8
Eligible topics	All
Eligible type of research and TRL	A TRL range from 1 to 4/5 is accepted, whereas TRL 5 will be the absolute upper limit and has to be acceptable within the scope of an SBO project. Consequently, this aspect is linked to the acceptable scope and type of research from the integrated FWO funding channels in this call, with very low TRLs for the junior/senior research project funding channel (FO) and higher TRLs for the strategic basic research channel (SBO). The FWO funds basic research, which has to form the core of a research proposal. But within the SBO projects some 'applied' elements can be accepted, if required and justifiable.

<p>Additional eligibility criteria</p>	<ol style="list-style-type: none"> 1) No submission at the national/regional level is required. However, if SBO, a valorisation plan has to be submitted (see point '2'). 2) When the strategic basic research channel (SBO) would be the appropriate source of funding, we ask researchers to provide us with a 'valorisation plan' before the pre-proposal submission deadline. There is no fixed format and one A4 page should suffice. What the FWO wants to know is i) how the valorisation within Flanders - and potentially internationally - will take place and ii) which Flemish actors are involved in this. This information can be submitted to the general eranet@fwo.be email address. 3) SBO projects aiming at the development of a spin-off company are not eligible here. 4) Non-eligible partners/parties/actors for FWO funding can potentially be involved within a consortium through subcontracting, when linked to an eligible institution/researcher. The FWO administration should be contacted in that regard. 5) Researchers have to inform the central research coordination units, at their host institutions, about their participation. 6) One and the same researcher can only participate in 2 different research projects/consortia when applying for FWO funding, within the same call. 7) Double funding is not allowed. 8) Projects may last up to 36 months, which implies the funding has to be budgeted and spent accordingly. <p>ERA-NET participation does not interfere with the 'regular' project submission framework, and is consequently not taken into account for calculating the max. available number of new applications and running projects combined.</p> <p>It is always strongly advised to contact the FWO before submission, in order to verify the eligibility of the researchers and avoid ineligible projects/research consortia.</p>
<p>Eligible costs</p>	<p>The regular FWO cost categories from the (junior/senior) 'research project' or SBO project funding channels are eligible:</p> <p>The maximum requested budget per partner amounts to 350.000 EUR (incl. overhead) per project. Beware, the funding rules differ</p>



	<p>per FWO funding channel (FO and SBO):</p> <ul style="list-style-type: none"> - FO: a 6% structural overhead should be calculated on the direct costs. E.g., a practical example: when the sum of all costs (personnel, consumables, travel, etc.) amounts to 300.000 EUR, then the overhead will be 18.000 EUR (6% of 300.000 EUR) and the total requested cost 318.000 EUR. This total requested cost may never exceed 350.000 EUR (for further detailed financial information, see chapters 6, 7 and 8 in the project regulations). - SBO: The SBO cost model applies. Generally a 17% overhead rate is applicable.
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b) Funding rates

Maximum funding percentages:

Type of research	Universities and research organisations
Fundamental/Basic Research	100

Belgium/Flanders - FONDS FLANKEREND ECONOMISCH EN INNOVATIEBELEID (Hermesfond)

a) Regional eligibility criteria

Regional Contact Point	Name: Elsie De Clercq E-mail: elsie.declercq@vlaio.be Tel: +32 2 432 42 78
Eligible entities	Any enterprise, from a Flemish SME to the Flemish branch of a multinational company may request funding. The only condition is that the enterprise should have a legal personality upon signing the agreement. Furthermore, the enterprise should have the capacity to exploit the result to a sufficient extent in Flanders and hence create enough economic impact in the form of employment and investments. Note: Flemish research centres cannot apply, but they can be subcontractor of the Flemish enterprise.
Eligible topics	1-4



Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research and Experimental Research TRL 2-7
Additional eligibility criteria	<ul style="list-style-type: none"> At least € 25.000 funding Before initiating a funding request for international projects, the applicant should contact VLAIO – Flemish applicants need to provide a regional ERA-NET addendum to VLAIO (through the VLAIO electronic application system see www.vlaio.be “Subsidies & financiering” – “Onderzoeksproject” or “ontwikkelingsproject” The maximum amount of funding for one project is € 500.000
Eligible costs	The budget of the Flemish industrial partner consists of own payroll costs, other costs (i.e. direct and indirect costs), costs large subcontractors, large costs, costs research partners

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Fundamental/Basic Research	Maximum 60	Maximum 60	Maximum 60	Subcontractor of the Flemish enterprise
Industrial/Applied Research	Maximum 60	Maximum 60	Maximum 60	Subcontractor of the Flemish enterprise
Experimental development	25 + 10 cooperation bonus	25 + 10 cooperation bonus + 10 ME bonus	Maximum 50	Subcontractor of the Flemish enterprise

Belgium/Wallonia – Service Public de Wallonie (SPW-Recherche)

a) Regional eligibility criteria

Contact Point	Name: Pierre Demoitié E-mail: pierre.demoitie@spw.wallonie.be Tel: 32 81 33 45 40
Eligible entities	Universities Companies Research centres



Eligible topics	All
Eligible type of research and TRL	Industrial/Applied Research and Experimental Research 4-7
Additional eligibility criteria	Universities must work together with a SME or a Research Centre
Eligible costs	Personnel costs Equipment Materials and supplies costs Subcontracting Dissemination Travel expenses according the Walloon rules

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities (1) and research organisations (2)
Industrial/Applied Research Experimental development	Depending from the TRL, from the number of partners and from the type of cooperation according the Walloon rules			(1) 100 (2) 75

Bulgaria – Bulgarian National Science Fund (BNSF)

a) National eligibility criteria

National Contact Point	Name: Prof. Irena Peytcheva E-mail: impeytcheva@gmail.com Name: Mrs. Milena Aleksandrova E-mail: aleksandrova@mon.bg Phone: +359 884 171 363
Eligible entities	1) Accredited universities as defined in Art.85 para.1, p. 7 of the Higher Education Act; 2) Research organizations as defined in Art. 47, para 1 of the Higher Education Act. http://lll.mon.bg/uploaded_files/zkn_visseto_obr_01.03.2016_EN.pdf
Eligible topics	All
Eligible type of research and	Basic Research

TRL	TRL 1-4
Additional eligibility criteria	<p>Applicants under this procedure shall be directly responsible for the implementation of the activities under the project proposal and shall not act as intermediaries, but they shall carry out activities under the project proposal on their behalf and at their expense.</p> <p>Applicants to this procedure must be entities:</p> <ul style="list-style-type: none"> - Carrying out fundamental research studies; and - Whose activities are entirely of a non-profit nature; or - Whose activities are of both for-profit and not-for-profit nature, but these activities are clearly distinguished and their organization allows tracking of revenue and expenditures connected with their implementation, including by keeping analytical accounting. In the event that an applicant is involved in both for-profit and not-for-profit activities, the funding, expenditures and revenues shall be taken into account separately for each type of activity and on the basis of consistently applied principles of accounting of expenditures being justifiable.
Eligible costs	<p>Eligible costs are specified in "National requirements and eligibility conditions" of Bulgarian National Science Fund available at:</p> <p>https://www.fni.bg/sites/default/files/competition/12_2016/ERA/BNSF_International_Programs-2017_ENG.pdf</p>
Additional information	<p>Applicants have to submit an application form for national eligibility when submitting the proposals. The form, entitled „Administrative description of the project“ should be filled in both Bulgarian and in English and signed. Application forms can be obtained at:</p> <p>https://www.fni.bg/?q=node/578</p> <p>They have to be sent it back by post or in person to BNSF Registry Office before the deadline of 1stage proposal submission.</p>

b) Funding rates

Maximum funding percentages:

Type of research	Universities and research organisations
Fundamental/Basic Research	Up to 100
Industrial/Applied Research	Up to 100
Experimental development	Up to 100



Canada/Québec - Pôle de recherche et d'innovation en matériaux avancés au Québec (PRIMA-Québec)

a) National eligibility criteria

National Point	Contact Name : Michel Lefèvre Directeur des programmes et collaborations internationales E-mail : michel.lefevre@prima.ca Tel : +1-514-284-0211 poste 227
Eligible entities	Applications must be submitted by Québec research establishments. Universities, CCTTs or public research centers are eligible (If the research center is not on the list please contact a PRIMA advisor to check the status (public or private) with the MEI). They must allow the training of highly qualified personnel (HQP).
Eligible topics	All
Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research and Experimental Research TRL 1-9
Additional eligibility criteria	<p>In keeping with its strategic plan, PRIMA Québec recommends the submission of files dealing with the development of advanced materials applied to such key Québec sectors as transportation and infrastructure, energy, the environment, electronics, health and chemistry.</p> <p>Technologies targeted by this call for projects include primarily:</p> <ul style="list-style-type: none"> • New materials or amelioration of materials • Integration of advanced material in semi-finished or finished product • Implementation processes, scaling and new characterization techniques around advanced material like : Additive manufacturing and 3D printing, modification and surface treatment, micro/nanofabrication, tools, new characterization tools, modeling and simulation, shaping processes, quantum calculus etc. • Use of artificial intelligence with advanced materials for production, integration or implementation processes or characterization technique. <p>It is necessary to have at least one company (primarily an SME) with a presence in Quebec (production or R&D). Businesses outside Quebec are not eligible in the Quebec application.</p> <p>The financing of the project is based on cost sharing :</p> <ul style="list-style-type: none"> • Min 20% from the industrial partner • Max 50% from PRIMA Quebec • 30% of complementary funding: other public money (Federal, Provincial, Municipal) that doesn't come from The Ministère de



	<p>l'Économie et de l'Innovation)</p> <p>The applicant can go to the PRIMA website (https://www.prima.ca/) to download the guideline of the program for more information.</p>
<p>Eligible costs</p>	<ul style="list-style-type: none"> • Salary expenditures for the R&D personnel hired to complete the project (by organization type): <ul style="list-style-type: none"> ○ For universities and institutions in the health and social services network where research activities are conducted: Salary expenditures for graduate students, research assistants, research professionals and technicians; ○ For College Technology Transfer Centres (CTTCs), NPOs and public research institutions: Salary expenditures paid out to researchers and R&D personnel hired to complete the project without any other financial support from the MEI. • Student scholarships; • The purchase or leasing of project-related equipment⁶; • Research-related consumables and supplies; • Animal facilities and platform-related costs; • Travel and living expenses for Quebec researchers and students (airfare, local transportation, accommodations, meal expenses and visa costs); • Consulting fees and subcontracting costs; • Management costs for the use of intellectual property; • Knowledge dissemination costs; • Costs related to the use of research and innovation results and intellectual property protection (publication costs, scientific and technological dissemination costs, workshop and seminar administration costs, international patent fees, etc.); • Legal document translation and design costs for partnership consolidations (maximum \$10,000).

⁶ Expenses regarding small equipment purchases or equipment leasing will be limited to a maximum of 25% of all eligible expenses. The purchase value of each piece of equipment must be equal to or less than \$15,000 before taxes.



Maximum amount of requested funding	The financial assistance will be provided over a three-year period and represents a non-repayable, non-recurring financial contribution. It may reach 50% of eligible cash expenses related to the performance of activities in the Quebec portion, but it will not exceed CAD\$500,000 over three years. The CAD\$500,000 amount will include direct research costs, MEI management fees (2%), as well as indirect research costs, where applicable. The MEI financial contribution will be non-repayable and non-recurring.
Additional information	Candidates are encouraged to contact an advisor at PRIMA to help them to mount the proposal. The candidates need also to fill the PRIMA form.

b) Funding rates

Maximum funding percentages:

Type of research	Universities and research organisations
Fundamental/Basic Research	50
Industrial/Applied Research	50
Experimental development	50

Czech Republic – Technologická Agentura České Republiky (TA CR)

a) National eligibility criteria

National Contact Point	Name: Kateřina Volfová, Project Manager Phone: +420 234 611 629 E-mail: katerina.volfova@tacr.cz www.tacr.cz/en/
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<p>Eligible entities</p>	<p>1) Enterprises (according to Annex 1 of the Regulation)</p> <p>2) Research organizations (according to Article 2 paragraph 83 of the Regulation)</p> <p><u>TACR excludes the disbursement of individual aid to an enterprise:</u></p> <ul style="list-style-type: none"> - against which, following the decision of the European Commission under which the funding received from a provider from the Czech Republic was declared as illegal and incompatible with the internal market, a recovery order has been issued which is unpaid, - meeting the definition of an “enterprise in difficulties (only in Czech)” referred to in Article 2(18) of the Regulation⁷, - which has not met the obligation to publish the financial statements for the years 2017, 2018, 2019 in the relevant register - the so-called “Veřejný rejstřík”.
<p>Eligible topics</p>	<p>All</p>
<p>Eligible type of research and TRL</p>	<p>Applied research (i.e. industrial research / experimental development). For definitions of applied research see the Framework and the Regulation. TRL 3-9</p>
<p>Additional eligibility criteria</p>	<p>Czech applicants are requested to submit:</p> <ul style="list-style-type: none"> - <i>Sworn statement of the applicant;</i> - <i>TACR Application Form</i> Excel file; - if the applicant plans to achieve the “NmetS” type of result, the “Confirmation of the Certification authority for NmetS results” needs to be attached; - if the applicant plans to achieve the “Patent” type of result, patent search must be substantiated. <p>All documents proving the eligibility of the Czech partner stated above are available on TACR’s website and shall be submitted via the TACR data box (TACR data box ID: afth9xp) within the same deadline as a project pre-proposals.</p> <p>Please fill in the subject line as: „Horizon2020 – ERA-MIN 3 Call 2021 - prokázání způsobilosti - <i>project acronym</i>“.</p> <p>TA CR will check following eligibility criteria at the national level:</p> <ul style="list-style-type: none"> • the project meets the definition of applied research • the aim of the project is relevant to the overall aim of the EPSILON programme • the research results correspond to the national rules (see below) and are applicable / exploitable (the project proposal has to include a

⁷ Commission Regulation (EU) No 651/2014 of 17th June 2014 (as amended – Commission Regulation 2017/1084) declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty – Official Journal of the European Union L 187, 26th June 2014 (hereinafter “the Regulation”).



	<p>clear description of the exploitation plan and results)</p> <ul style="list-style-type: none"> • the industrial research and experimental development share corresponds to the activities of the Czech partner as described in the project proposal • the applicants are eligible • the costs are eligible • the requested funding meets the national regulations for aid intensity (see below) • the applicants have published the financial statements for the requested years 2017, 2018, 2019 <p>Czech applicants will be financed from the “EPSILON” Programme - <i>subprogramme 2: “Energetika a materiály.”</i> Relevance to the programme/subprogramme objectives is examined as a part of the eligibility check.</p> <p>Supported results Projects that achieve at least one of the following types of results can be supported in this Call. The type of the result has to be clearly described in the project proposal: P - patent; G - technically realized results - prototype, functional sample; Z - pilot plant, proven technology; R - software; F - results with legal protection - utility model, industrial design; N - Certified methodologies and practices, treatment, conservation methods, procedures and specialized maps with professional expert content; O - Miscellaneous</p> <p>Results not to be recognized as a single result of a given project, but only in combination with at least one other result listed in the list of result types above: H - results reflected in non-legislative directives and regulations binding within the competence of the respective provider and results reflected in the approved strategic and conceptual documents of the state or public administration.</p> <p>Czech candidates are obliged to sign an agreement with their foreign partners (i.e. Consortium Agreement), which will define the modalities of cooperation on the project and the distribution of intellectual property rights.</p> <p>Please note that following the national legislation, Czech applicants must start within 120 days from the funding decision being communicated by the Call Management (60-day period to make a contract + 60-day period to start the project).</p>
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<p>Eligible costs</p>	<p>The maximum permissible aid intensity for the Czech part of the project is 85 % of eligible costs. The aid intensity for each Czech candidate in the project is determined based on the type of entity and type of research according to the Regulation (see table below).</p> <p>The eligible costs are:</p> <ul style="list-style-type: none"> - personnel costs (including scholarships) - subcontracting costs (max. 20% of total eligible costs throughout the whole project period) - other direct costs (write-offs, protection of intellectual property, operating expenses, travel costs) - indirect costs (overheads) - full cost/flat rate 25% (indirect costs in the respective year are calculated as 25% of the sum of the personnel costs and other direct costs in the same year) <p>These specific categories of eligible costs are defined under Article 17 of the General Terms & Conditions. Investment costs are NOT eligible in this joint call.</p>
<p>Additional information</p>	<p>Useful links: TA CR International Calls EPSILON programme (in Czech) TACR Partnering Tool Definitions of supported outcomes (in Czech)</p> <p><i>The Guide for Czech Applicants and Funding rules for the Czech applicant for ERA-NET cofunds will be available on the TA CR website in Czech.</i></p>

b) Funding rates

The aid intensity for each Czech applicant in the project is determined based on the type of entity according to [the Regulation](#) (see table below) and at the same time must not exceed the maximum permissible aid intensity for the Czech part of the project, which is **85 % of the total eligible costs**.

Maximum funding percentages:

Beneficiary	small enterprise*	medium enterprise*	large enterprise*	research organization**	organisational unit of the state
Activity category					
Industrial research	70	60	50	100	100
Industrial research in case of effective cooperation***	80	75	65	-	-
Experimental development	45	35	25	100	100



Experimental development in case of effective cooperation***	60	50	40	-	-
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* An SME is defined in Article 2 paragraph 2 and Annex 1 of the Regulation; a large enterprise is defined in Article 2 paragraph 24 of the Regulation.

** A research organization is defined under Article 2 paragraph 83 of the Regulation. The indicated funding rate is intended for non-economic activities of the research organisations (see also items 19 and 20 of [the Framework](#)⁸).

*** Effective cooperation - the aid can be increased by up to 15% if the applicant fulfils the conditions according to the Regulation Article 25

⁸ Framework for State Aid for Research and Development and Innovation – Official Journal of the European Union C 198, 27 June 2014 (hereinafter “the Framework”)



Estonia – Sihtasutus Eesti Teadusagentuur (ETAg)

a) National eligibility criteria

National Contact Point	Name: Margit Suuroja Estonian Research Council Tel : +372 731 7360 E-mail: margit.suuroja@etag.ee
Eligible entities	1.1 The Host Institution is the institution to which the grant will be allocated. The Host Institution must be a legal entity that is registered and located in Estonia. The Host Institution must declare that the project can be carried out within their premises and that it will employ the Principal Investigator during the proposed project, should the project receive funding. For enterprises EU Regulations on State Aid for Research and Development must be taken into account when requesting funding from the Estonian Research Council. The state aid form must be filled in. No tax arrears are allowed on the proposal submission date.
Eligible topics	All
Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research TRL 1-6
Additional eligibility criteria	1.2 The Principal Investigator is the researcher who submits the project proposal and who will be responsible for the use of the grant and for the implementation of the project. The Principal Investigator: 1.2.1 must have an updated public profile in the Estonian Research Information System (ETIS); 1.2.2 must hold a doctoral degree or an equivalent qualification. The degree must be awarded by the submission deadline of the grant application, at the latest; 1.2.3 must have published at least three articles which comply with the requirements of clause 1.1 of the ETIS classification of publications, or at least five articles which comply with the requirements of clauses 1.1, 1.2, 2.1 or 3.1, within the last five years prior to the proposal submission deadline. International patents are equalled with publications of clause 1.1. A monograph (ETIS clause 2.1) is equalled with three publications mentioned in clause 1.1 if the number of authors is three or less. If the applicant has been on pregnancy and maternity or parental leave or in the compulsory military service, or has other serious grounds, the publication period requirement will be extended by the respective time.



	<p>1.3 Senior research staff of the project participates in the substantial performance of the project. They must hold at least master's degree or an equivalent qualification.</p>
<p>Eligible costs</p>	<p>2.1 Research expenses consist of direct costs (personnel costs incl. scholarships, travel costs and other direct costs) and subcontracting costs. The research expenses must be used to carry out the project and be respectively identifiable.</p> <p>2.2 Direct costs</p> <p>2.2.1 Personnel costs are monthly salaries with social security charges and all other statutory costs of the participants of the project calculated according to their commitment and proportionately to their total salary cost at their Host Institution.</p> <p>2.2.2 Scholarships equal to the state doctoral allowance may be paid out of the grant to doctoral students not receiving any salary from the Host Institution. Should a doctoral student participate in several projects financed by the Estonian Research Council, the total amount of the scholarship from these projects may not exceed the nationally determined amount of doctoral allowance.</p> <p>2.2.3 Travel costs may cover expenses for transport, accommodation and daily allowances.</p> <p>2.2.4 Other direct costs are:</p> <ul style="list-style-type: none"> - consumables related to the project; - costs for publication and dissemination of project results; - costs for organising meetings, seminars or conferences; - fees for participation in scientific forums and conferences; - all other costs that are identifiable as clearly required for the implementation of the project. <p>2.3 Subcontracting costs should not be included in the overhead calculation and should cover only additional or complementary research related tasks (e.g. costs for translation, analyses, etc.) performed by third parties. Core project tasks should not be subcontracted. Subcontracting costs may not exceed 10% of the total costs.</p> <p>2.4 Overhead may not exceed 20% of eligible direct research costs and should cover general expenses of the Host Institution. Costs for equipment and services intended for public use (copying machine or printer publicly used, phone bills, copying service, etc.) should be covered from the overhead.</p> <p>2.5 Double funding of activities is not acceptable.</p>

For more information see: https://www.etag.ee/wp-content/uploads/2020/03/Vastavusno%CC%83uded-RV-u%CC%88hiskonkurssidel_kinnitatud-12.03.2020.pdf



Finland - INNOVAATIO RAHOITUSKESKUS BUSINESS FINLAND (Business Finland)

a) National eligibility criteria

National Contact Point	Name: Maarit Kokko E-mail: maarit.kokko@businessfinland.fi Tel. +358 40 7619555
Eligible entities	SME's and Large companies, Universities, R&D institutes. Organisations must be legal entities registered in Finland.
Eligible topics	All
Eligible type of research and TRL	Industrial/Applied research and Experimental development TRL 3-7
Additional eligibility criteria	<ul style="list-style-type: none"> ○ Industrial organisations can participate directly in consortia. ○ Research organisations must work parallel with industrial organisations. Consortia must include at least three industrial partners of which at least two are Finnish industrial partners (SMEs or large companies) to be eligible for funding. The Finnish industrial partner can either apply for BF funding or act as an in-kind partner in the consortium.
Eligible costs	<p>The following costs are eligible:</p> <ol style="list-style-type: none"> 1. personnel costs 2. indirect costs 3. costs of equipment and devices 4. subcontracting 5. travel expenses <p>For more information see: https://www.businessfinland.fi/suomalaisille-asiakkaille/etusivu/</p>

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organizations
Industrial/Applied Research	40	65	65	70



France - AGENCE DE L'ENVIRONNEMENT ET DE LA MAITRISE DE L'ENERGIE (ADEME)

a) National eligibility criteria

Contact Point	Name: Rachel BAUDRY E-mail: mailto:mrachel.baudry@ademe.fr Tel: (33) 2 41 91 40 70 Name: H�el�ene VARLET E-mail: helene.varlet@ademe.fr Tel: (33) 4 93 95 79 18
Eligible entities	Universities, R&D institutes, SME's and Large companies, NGOs (associations, foundations, etc.). Organisations must be legal entities .
Eligible topics	2-5
Eligible type of research and TRL	Fundamental/Industrial/Applied Research and Experimental development TRL3-7
Additional eligibility criteria	All French applicants must submit a national funding application, including financial information, immediately after the submission of the proposal. The national application form will be sent by ADEME to the coordinator of each submitted proposals.
Eligible costs	ADEME's eligible costs are detailed in the following documents (available in French): <ul style="list-style-type: none"> • R�egles g�en�erales d'attribution et de versement des aides de l'ADEME • R�egime d'aides de l'ADEME � la recherche, au d�veloppement et � l'innovation It includes salaries, overheads, travel expenses, devices, equipment and operational costs.

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Fundamental/ Basic Research	Not applicable	Not applicable	Not applicable	100
Industrial/Applied Research*	Max. 50	Max. 60	Max. 70	Max. 50
Experimental development*	Max. 25	Max. 35	Max. 45	Max. 50



France - AGENCE NATIONALE DE LA RECHERCHE (ANR)

a) National eligibility criteria

National Contact Point	Name: Nela ROY Chargé de mission scientifique ANR Tel : +33 1 73 54 83 05 E-mail: nela.roy@agencerecherche.fr
Eligible entities	Universities and research organizations Large, medium and small enterprises Private non-profit organisations This list is not comprehensive. Please consult the ANR funding regulations for more details https://anr.fr/fr/rf/
Eligible topics	Projects concerning the following topics and sub-topics: Topic 1: only sub-topics 1.1 and 1.3 Topic 5: only sub-topic 5.1, 5.2, 5.3 Topics 2, 3, 4, : all sub-topics Projects concerning the following subjects for all topics are not eligible: <ul style="list-style-type: none"> - Off-shore exploration - Health & safety issues
Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research TRL 1-5
Additional eligibility criteria	For French partners: see the National annex " Annexe nationale ANR ERA-MIN 3 édition 2021 " available on ANR website EU co-funded ERA-MIN Joint Call 2021: Matières premières pour un développement durable et une économie circulaire - 2021 ANR & https://anr.fr/fileadmin/aap/2021/aap-eramin-2021-annexe-fr.pdf
Eligible costs	See ANR funding regulations ("Règlement relatif aux attributions des aides de l'ANR", in the table below shortly indicated as RF) http://www.agence-nationale-recherche.fr/RF

Germany - FORSCHUNGSZENTRUM JÜLICH GMBH (PtJ) on behalf of Federal Ministry of Education and Research (BMBF)

a) National eligibility criteria

National Contact Point	Name: Holger Gruenewald Project Management Jülich - PtJ Tel. + 49 30 20199 3183 E-mail: h.gruenewald@fz-juelich.de
Eligible entities	Universities, R&D institutes, SME's and Large companies, NGOs (associations, foundations, etc.). Organisations must be legal entities.
Eligible topics	2, 4, 5.1 Applicants are encouraged to apply life cycle thinking and to integrate aspects from other topics into their proposals. Proposals addressing mainly topics 1, 3 or sub-topics 5.2-5.4 are not eligible.
Eligible type of research and TRL	Industrial/Applied Research and Experimental development TRL 4-8 At the end of the project, the technology is expected to have reached a TRL of at least 4 , corresponding to a "technology validated in lab". Information must be provided in the application to substantiate this claim, and the project may be deemed to be ineligible without it.
Additional eligibility criteria	<ol style="list-style-type: none"> All proposals must be aligned with the thematic scope of the research programme "Ressourceneffiziente Kreislaufwirtschaft" (https://www.fona.de/mediathek/pdf/Ressourceneffiziente_Kreislaufwirtschaft.pdf) and the specific national funding regulations (https://www.fona.de/de/massnahmen/foerdermassnahmen/era-min-2-das-era-net-zum-thema-rohstoffeffizienz_copy.php). Each transnational consortium requesting funding from BMBF must comprise at least one German company which is eligible for funding. The BMBF does not have a maximum funding per grant. The amount depends on the scientific needs and justification for the budget. However, in general no projects with a budget smaller than 50.000 € per partner are funded. . To clarify the eligibility of the thematic scope and the funding rates it is necessary to get in contact with the National Contact Point before submitting a proposal.
Eligible costs	Personnel, consumables, equipment, travel, subcontracting, overhead; corresponding to the national BMBF funding rules

b) National funding rates



Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organizations
Industrial/Applied Research	Up to 40	Up to 50	Up to 60	Up to 100
Experimental development	Up to 25	Up to 35	Up to 45	Up to 100

Ireland - The Department of the Environment, Climate and Communications (GSI) /Environmental Protection Agency (EPA)

a) National eligibility criteria

National Contact Point	Name: Aoife Braiden Geological Survey Ireland Tel : +353 1 6782650 E-mail: aoife.braiden@gsi.ie
Eligible entities	Universities and research organizations Large, medium and small enterprises
Eligible topics	All
Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research TRL 1-7
Additional eligibility criteria	Tax clearance certificates are required, State Aid rules will apply. All applicants must check with the NCP to confirm their proposed topic is eligible.
Eligible costs	Eligible costs include: Staff, travel (including fieldwork), consumables, dissemination activities, access to labs, subcontracting (to a max of 10% of total direct costs unless pre-approved) Indirect costs are eligible but limited to 20% of total Direct costs (excluding subcontracting) Durable equipment is not an eligible cost. Contact NCP for budget eligibility queries.

Italy - Ministero dell'Università e della Ricerca (MUR)

a) National eligibility criteria

Contact Point	Aldo Covello Email: aldo.covello@miur.it Maria Chiara Noto Email: mariachiara.noto@est.miur.it Website: http://www.ricercainternazionale.miur.it/
Eligible entities	The following entities are eligible, providing that they have stable organization in Italy: - enterprises, universities, research institutions, research organizations in accordance with EU Reg. n. 651/2014 of the European Commission - June 17, 2014; Any participant, in order to be eligible, must comply with the eligibility criteria listed in the art. 2.4 of the “Linee guida al DM 593/2016”.
Eligible topics	No restrictions
Eligible type of research and TRL	Basic research, Industrial research and Experimental development are eligible for funding. Furthermore, Basic Research and Industrial research activities must be predominant with respect to Experimental development activities (in terms of costs).



<p>Additional eligibility criteria</p>	<p>For the preproposal submission, in addition to the project proposal, which shall be submitted at European level, the Italian participants are requested to submit further documentation to MUR, through the national web platform, available at the following link: https://banditransnazionali-miur.cineca.it</p> <p>These national additional documents must be submitted by the same deadline established for the pre-proposal phase submission as defined in the international joint call. Any participant who does not submit its national documents by the deadline of the pre-proposal phase will be considered not eligible for funding.</p> <p>It is strongly recommended to contact the National Contact Persons already in early stage of project preparation.</p> <p>For the full proposal submission, MUR will require to all Italian participants admitted to the full proposal phase some additional documents describing in more detail the participant and its research activities within the project.</p> <p>The admission for funding is subject to the adoption of the necessary accounting and administrative measures for the allocation of the resources.</p> <p>Funded participants will be requested to submit financial and scientific reports to MUR.</p> <p>The criteria and provisions provided herewith are intended only for informative purposes. The complete list of criteria and provisions legally valid, which must be respected by all the Italian participants, is included in the “Avviso integrativo nazionale”, published on the MUR website, and in the applicable Italian laws.</p> <p>Applicable laws and rules (http://www.ricercainternazionale.miur.it/evidenza/normativa-prog-internazionali.aspx):</p> <ul style="list-style-type: none"> - Decreto legge n. 83/2012 - Decreto Ministeriale n. 593 del 26 luglio 2016 - Linee guida al D.M. del 26 luglio 2016 n. 593 - Procedure operative per il finanziamento dei progetti internazionali ex art. 18 D.M. del 26 luglio 2016 n. 593
<p>Eligible costs</p>	<p>All costs incurred during the lifetime of the project under the following categories are eligible: Personnel, Equipment, Consulting and equivalent services, Consumables and Overheads. Overheads (“Spese generali”) shall be calculated as a percentage of the personnel costs and cannot be higher than 50% of them. Travel expenses, dissemination and coordination costs are to be included in the overheads.</p> <p>The maximum grant that can be awarded to each project proposal, even if it includes more than one Italian participant, is 200.000 euro.</p>



b) Funding rates

Funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Basic Research	20	30	40	70
Industrial/Applied Research	20	30	40	50
Experimental development	10	20	30	25

The amount of funding which can be granted to each beneficiary is calculated multiplying the eligible costs for the funding rate listed in the table above. On request of applicants a pre-payment may be done, equal to:

- 80% of the total contribution for public entities;
- 50% of the total contribution for private entities.

The remaining part of contribute will be paid in instalments after each financial and progress reporting period.

Poland - NARODOWE CENTRUM BADAN I ROZWOJU (NCBR)

a) National eligibility criteria

National Contact Point	Name: Dominika Mickiewicz Email: dominika.mickiewicz@ncbr.gov.pl Tel. +48 22 39 07 139
Eligible entities	Research Organizations; Micro, Small, Medium and Large Enterprises. Polish entities must be registered in Poland The project consortium with Polish participation must contain at least one Polish enterprise (with declared budget and tasks) to be eligible for funding.
Eligible topics	1-4
Eligible type of research and TRL	Industrial/Applied Research and Experimental development TRL 2-9

Additional eligibility criteria	Funding quota of Polish participants can be up to 100% for research organizations. In the case of enterprises, funding quota will be decided on a case-by-case basis depending on the size of the company, type of research/development, risk associated with the research activities and commercial perspective of exploitation, under <i>the Regulation of the Minister of Science and Higher Education of 19 August 2020 on criteria and rules on granting state aid and “de minimis” aid by the National Centre for Research and Development, published in Journal of Laws item 1456, 2020</i>
Eligible cost	<ol style="list-style-type: none"> 1. personnel costs 2. operating costs including costs of instruments, equipment, technical knowledge and patents, buildings and land, costs of materials and supplies 3. costs of subcontracting 4. additional overheads $4 = (1+2) * \text{max } 25\%$. corresponding to the national funding rules <p>Other types of activities (e.g. coordination, dissemination, management) are not eligible for funding as separate tasks. They can be included in an appropriate cost category within research tasks.</p>

b) National funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Industrial/Applied Research	Up to 50+15 (max 65)	Up to 50+10+15 (max 75)	Up to 50+20+15 (max 80)	Up to 100
Experimental development	Up to 25+15 (max 40)	Up to 25+10+15 (max 50)	Up to 25+20+15 (max 60)	Up to 100

Portugal - Fundação para a Ciência e a Tecnologia (FCT)

a) National eligibility criteria



National Contact Point	Name: Ana Luísa LAVADO E-mail: analuisa.lavado@fct.pt Tel: [+351] 21 392 4396 Name: Dina CARRILHO E-mail: dina.carrilho@fct.pt Tel: [+351] 21 392 4381
Eligible entities	The organisations must be registered in Portugal. For detailed information consult the “ Regulation on Projects Funded Solely by National Funds ” at: www.fct.pt/apoios/projectos/regulamentofundosnacionais.phtml.pt
Eligible topics	All
Eligible type of research and TRL	Fundamental/Basic Research; Industrial/Applied Research; Experimental Development TRL 1-8
Additional eligibility criteria	The funding to the Portuguese participation is limited in a transnational proposal as described at: www.fct.pt/apoios/cooptrans/eranets/eramin3/index.phtml.pt Each Portuguese institution must sign a “Declaração de compromisso” which must be sent, by e-mail, to the FCT’s contact person no later than 10 working days after the pre-proposal submission deadline (15 th April 2021).
Eligible cost	The eligible costs are detailed in the Regulation on Projects Funded Solely by National Funds at: www.fct.pt/apoios/projectos/regulamentofundosnacionais.phtml.pt For revision of the budget, send it by e-mail before the submission deadline, to the FCT’s contact person.
Additional information	<p><u>Prior contact with the FCT</u></p> <p>Each applying organisation should send their requested funding and costs justification in the transnational project, in the ERA-MIN Financial plan Excel file, before the pre-proposal submission deadline, to the FCT’s contact person. Refer to the Regulation on Projects Funded Solely by National Funds.</p> <p>Maximum requested funding per Portuguese participation in a project :</p> <ul style="list-style-type: none"> • 250,000 Euros if 24-36 months project duration and consortium coordinated by Portugal; • 150,000 Euros if 24-36 months project duration and consortium with Portuguese participation; • 50,000 Euros if 12-18 months project duration

b) National funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities, research organisations and other non-profit-organisations
Fundamental/ Basic research	50	50	50	100
Industrial/Applied Research	50	50	50	100
Experimental development	50	50	50	100

Romania - Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii (UEFISCDI)

a) National eligibility criteria

Contact Point	Name Mihaela Manole E-mail: mihaela.manole@uefiscdi.ro Tel: (+40) 21 3023863
Eligible entities	Eligible entities for funding are universities, public institutions, R&D national institutions, joint-stock companies, SME's and Large companies, NGOs (associations, foundations, etc.), others.
Eligible topics	All
Eligible type of research and TRL	1-9
Additional eligibility criteria	Funding rates vary in accordance with state aid legislation. For more information : http://uefiscdi.gov.ro/articole/4536/Pachet-de-informatii-ERANETERANET-Cofund.html
Eligible costs	a. Staff costs; b. Logistics expenses - Capital expenditure; - Expenditure on stocks - supplies and inventory items; - Expenditure on services performed by third parties cannot exceed 25 % of the funding from the public budget. The subcontracted parts should not be core/substantial parts of the project work; c. Travel expenses; d. Overhead (indirect costs) is calculated as a percentage of direct costs: staff costs, logistics costs (excluding capital costs and cost for subcontracting) and travel expenses. Indirect costs will not exceed 20 % of direct costs.

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Fundamental/Basic Research	100	100	100	100
Industrial/Applied Research	Up to 50+15 (max 65)	Up to 60+15 (max 75%)	Up to 70+10 (max 85)	100
Experimental development	Up to 25+15 (max 40)	Up to 35+15 (max 50)	Up to 40+15 (max 65)	100

Slovakia - Slovenska Akademia Vied (SAS)

a) National eligibility criteria

National Contact Point	Name: Mr. Martin Novák E-mail: mnovak@up.upsav.sk Phone: +421 2 5751 0 119 Name: Ms. Zuzana Panisová E-mail: panisova@up.upsav.sk Phone: +421 2 5751 0 245
Eligible entities	<p>Only research Institutes of the Slovak Academy of Sciences are eligible organisations for funding by SAS (up to 100%). Applicants from other Slovak R&D centres have to cover the project costs from their own sources (Letter of Commitment). In addition to this, teams outside of SAS (universities and/or other organisations) can be consortium members but not the coordinator of the consortium.</p> <p>Eligibility of principal investigator or other research team member - Each researcher of the core research team of a project consortium Slovak partner (other than the Principal Investigator) must have a job contract with or a fellowship with such a Slovak project partner, lasting until the end of the project or beyond. The principal Investigator of the research team of a project consortium Slovak partner must be a senior researcher having a job contract with such a project partner, lasting until the end of the granted project or beyond.</p>
Eligible topics	All
Eligible type of research and TRL	Basic Research, Applied Research and Experimental Development TRL 1-7
Additional eligibility criteria	Eligible costs as defined in the ERA-MIN Joint Call 2018 for Proposals text can be applied unless they are in conflict with the SAS Financial Rules for awarding grants for research projects. Priority is given to the SAS Financial Rules. https://www.sav.sk/index.php?lang=sk&doc=services-news&source_no=25&news_no=7114
Eligible costs	Direct costs (DC): Personnel (max. of 15% of all DC or max. of 30% of all DC, if Slovak team is a coordinator of consortium), Consumables, Equipment (max. 40% of DC) and Travel costs. Indirect costs (IC - overheads): max. 20 % of DC. Total eligible costs = DC + IC. Training costs shall not be defined as a separate category, but is included in other costs items.

Additional information	<p>More details in the national/regional call announcement: Initial funding commitment: up to 120.000 € Anticipated number of funded projects: 1 Maximal annual budget per project: 40.000 €</p> <p>National phase – Submission of the proposal at the national level will be carried out once the international evaluation and the ranking list have been performed and endorsed by the ERA-MIN 2018 Joint Call Steering Committee (CSC) and the Slovak project partner has been informed by the project consortium coordinator and invited by SAS to submit the proposal to it (Formular MVTs). The Presidium of SAS makes the final decision concerning the approval of funding (according to internal rules of SAS)</p> <p>Further guidance: www.sav.sk; Act No. 133 Act of 19 February 2002 on the Slovak Academy of Sciences; Financial rules for awarding SAS grants for research projects in the framework of ERA.Net Programme for research institutes of SAS; Principles of allocation of funds for the institutes of SAS to support projects in the field of international scientific cooperation</p> <p>For more information please contact the NCP.</p>
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b) Funding rates

Maximum funding percentages:

Type of research	Universities and research organisations
Fundamental/Basic Research	Up to 100
Industrial/Applied Research	Up to 100
Experimental development	Up to 100



Slovenia - MINISTRSTVO ZA IZOBRAZEVANJE, ZNANOST IN SPORT (MIZS)

a) National eligibility criteria

Contact Point	Name: Doroteja Zlobec E-mail: doroteja.zlobec@gov.si Tel: +386 1 478 46 24
Eligible entities	<p>Eligibility of a partner as a beneficiary institution: research organizations as defined in the national Research and Development Act (Zakon o raziskovalni in razvojni dejavnosti – ZRRD). All participating institutions have to be registered in the Slovenian Research Agency register of research institutions (Informacijski sistem o raziskovalni dejavnosti v Sloveniji - Sicris).</p> <p>Eligibility of principal investigator and other research team members: The project activities of the Slovenian partner have to be under the supervision of the <u>primary investigator/primary researcher</u> who fulfills the requirements for project leader as defined in Art. 29 of the <i>national Decree on norms and standards used to determine funding for research activities financed from the Republic of Slovenia budget</i> (Uredba o normativih in standardih za določanje sredstev za izvajanje raziskovalne dejavnosti, financirane iz Proračuna Republike Slovenije) hereinafter: <i>Decree on criteria and standards</i>). The criteria are further determined in the Rules on Determining the Fulfillment of Conditions for a Research Project Leader (Pravilnik o kriterijih za ugotavljanje izpolnjevanja pogojev za vodjo raziskovalnega projekta). All participating researchers have to be <u>registered in the Slovenian Research Agency register of researchers</u> (Sicris) and <u>must have available research hours</u>.</p>
Eligible topics	All
Eligible type of research and TRL	Basic research or applied research. The type of research conducted by Slovenian researchers must be defined and explained in the project proposal (e.g. in the Comments on budget section). TRL 1-6
Additional eligibility criteria	<p>All Slovenian applicants must refer to the guidelines for Slovenian applicants published on the webpage (https://www.gov.si/zbirke/projekti-in-programi/era-net-era-min/).</p> <p>Legal basis – national regulation State Administration Act (Zakon o državni upravi) - Article 16 and 39; Public Finance Act (Zakon o javnih financah) - Article 106. j; Regulation on the procedure of standards and manners to allocate means for the promotion of the evolutionary programme and the preferential tasks</p>



	<p>(Uredba o postopku, merilih in načinih dodeljevanja sredstev za spodbujanje razvojnih programov in prednostnih nalog); Implementation of the Republic of Slovenia's Budget for 2020 and 2021 Act (Zakon o izvrševanju proračunov Republike Slovenije za leti 2020 in 2021 (ZIPRS 2021)); Integrity and Prevention of Corruption Act (Zakon o integriteti in preprečevanju korupcije); Resolution on the National Research and Development Programme 2011-2020 (Resolucija o raziskovalni in inovacijski strategiji Slovenije 2011-2020 (RISS) (Uradni list RS, št. 43/11)), Research and development Act (Zakon o raziskovalni in razvojni dejavnosti); Decree on norms and standards used to determine funding for research activities financed from the Republic of Slovenia budget (Uredba o normativih in standardih za določanje sredstev za izvajanje raziskovalne dejavnosti, financirane iz Proračuna Republike Slovenije); Rules on criteria for establishing compliance with the conditions for being the head of a research project (Pravilnik o kriterijih za ugotavljanje izpolnjevanja pogojev za vodjo raziskovalnega projekta); Community Framework for State Aid for Research and Development and Innovation the provisions of the Community Framework for State Aid for Research and Development and Innovation (OJ EU C 198, 27. 6. 2014) (Okvir za državno pomoč za raziskave in razvoj ter inovacije (2014/C 198/01)); National scheme for state aid in Research and Development (Program za spodbujanje raziskav in razvoja Ministrstva za izobraževanje, znanost in šport na področju znanosti 2016-2020); National strategy of open access to scientific publications and research data in Slovenia 2015-2020 (Nacionalna strategija odprtega dostopa do znanstvenih objav in raziskovalnih podatkov v Sloveniji 2015-2020).</p> <p>National contracting negotiations: will commence after the projects are selected for funding on the level of the transnational call. National documentation, including evidence of the starting date of the transnational project (in the form of a Consortia Agreement or statement on the starting date by the transnational project coordinator), will be a prerequisite for signing the contract on national level. All Slovenian applicants are strongly advised to contact the Slovenian National Contact Person before preparing proposals for application.</p>
<p>Eligible costs</p>	<p>Total national funding: max. 420.000,00 EUR including VAT</p> <p>Total requested funding per project: for all Slovenian partners within one consortium must not exceed 70.000,00 EUR per year (210.000,00 EUR for the total project duration of 36 months).</p> <p>Eligibility of costs: MIZS will fund all eligible costs of Slovenian</p>



	<p>researchers participating in successful transnational projects, recommended for funding in accordance with the Decree on criteria and standards. Eligible costs are defined based on the FTE value according to the Slovenian Research Agency's research project categorization (A, B, C or D based on the research conducted). Eligible costs must be directly related to the research conducted and should include <u>personnel, material and equipment</u> costs as elements of the FTE. Indirect costs are eligible. The value is calculated based on the FTE value of category A, B,C, or D research projects, under the condition that costs under each of the specific FTE elements are appropriately decreased (by a max. of 20% for indirect costs). Providing the stipulated conditions are met, the Public Procurement Act (Zakon o javnem naročanju) applies.</p> <p>Period of eligibility of public expenditures: as of budgetary year 2023 until the end of the budgetary year 2025.</p> <p>Period of eligibility of expenditures on the project: From the starting date of the transnational project stipulated in the consortium agreement for a period of 36 months, with a prescribed additional 30 day period for the payment of invoices related to the project costs. The period of eligibility of expenditures on the project can only start <u>from the date the national contract enters into effect</u>. The exact duration of the project will be defined in the contract between MIZS and the selected Slovenian partner, after the consortium agreement between the selected consortium partners enters into force.</p>
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b)Funding rates

Funding: 100 % for research organization (such as universities, public and private research institutes) whose financed activity is non-economic in accordance with the provisions of Community Framework for State Aid for Research and Development and Innovation. Wide dissemination of all research results on a non-exclusive and non-discriminatory basis is required.

For research organizations whose financed activity is economic in accordance with the provisions of Community Framework for State Aid for Research and Development and Innovation the provisions of the Community Framework for State Aid for Research and Development and Innovation (OJ EU C 198, 27. 6. 2014) and the national scheme for state aid in Research and Development: [Program za spodbujanje raziskav in razvoja Ministrstva za izobraževanja, znanost in šport na področju znanosti, št 631-1/2016-7, 8.1.2016](#), applies.

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Fundamental/Basic Research	65	75	80	non-economic 100
Industrial/Applied Research	65	75	80	non-economic 100





ERAMIN 3

RAW MATERIALS FOR THE SUSTAINABLE DEVELOPMENT
AND THE CIRCULAR ECONOMY



South Africa - DEPARTMENT OF SCIENCE AND INNOVATION (DSI)

a) National eligibility criteria

Contact Point	<p>Name: Ms Tugela Matubatuba Deputy Director: Strategic Partnerships Department of Science and Innovation E-mail: Tugela.matubatuba@dst.gov.za Tel: (+27)12 84 36860</p>
Eligible entities	<p>This call is open to working researchers residing in South Africa and affiliated with a recognised higher education or research institution such as a university, university of technology or science council, small, medium (SMEs) and large enterprises in the private sector and national system of innovation organisations involved in R&D.</p> <p>It is “obligatory” for South African lead researcher/principal investigator (PI)s based at historically advantaged institutions, SMEs and large companies to include, as part of the research team, a research partner from any of the historically disadvantaged institutions. Proposals submitted by an applicant based at a historically advantaged institution without a research partner from a historically disadvantaged institution will be ineligible. The research partner from the historically disadvantaged institution in this case can serve as a co-applicant in the proposal.</p> <p>Applicants based at historically disadvantaged institutions can act as PIs and submit proposals without the involvement of and or partnering with researchers based at historically advantaged institutions if they so wish.</p> <p>Please note that only the following eight universities will be recognized as historically disadvantaged in line with the Department of Higher Education and Training November 2015 Ministerial Statement on university funding:</p> <ul style="list-style-type: none"> • University of Limpopo (UL) • University of Fort Hare (UFH) • University of Venda (Univen) • Walter Sisulu University (WSU) • University of the Western Cape (UWC) • University of Zululand (UniZulu) • Mangosuthu University of Technology (MUT) • Sefako Makgatho Health Sciences University (SMU).
Eligible topics	All topics



Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research and Experimental development TRL 1-9
Additional eligibility criteria	<p>It is mandatory for applicants to present their application project outline firstly to DSI in order to ascertain the strategic alignment with the country's National Development Plan and the objectives of the Department. Failure to contact the DSI prior to submission of your application will result in the project not endorsed for funding.</p> <p>Only applicants who have been recommended for funding by the evaluation committee will be required to complete and submit the DSI co-investment application for funding.</p>
Eligible costs	<p>Direct costs: Travel and Daily subsistence allowance including accommodation costs in line with the guidelines of South African government regulations.</p> <p>Consumables and supplies Any consumables necessary for the implementation of the project may be considered as direct eligible costs. Consumables are only eligible costs under the project if bought after the start date of the project.</p> <p>Costs of personnel DSI will cover personnel cost to be incurred during project implementation.</p> <p>Sub-contracting Not more than 20% of the project should be sub-contracted. The subcontracted work should not be core/substantial parts of the project work.</p>

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Small and Medium	Universities and research organisation
Fundamental/Basic Research	Up to 80	Up to 90	90
Industrial/Applied Research	Up to 80	Up to 90	90
Experimental development	Up to 80	Up to 90	90



Spain - Agencia Estatal de Investigación (AEI)

a) National eligibility criteria

<p>Contact Point</p>	<p>Representative: Name: Beatriz Gómez Miguel E-mail: beatriz.gomez@aei.gob.es</p> <p>Administrative and technical issues: Name: Jorge Sotelo Santos E-mail: era-mat@aei.gob.es</p> <p>Scientific Issues: Name Dr. Amador Caballero Tel: +34 916037238</p>
<p>Eligible entities</p>	<p>The eligible entities for the AEI funding are:</p> <p>Non-profit research organizations (such as universities, public research institutions, technological centres and other private non-profit institutions performing RDI activities in Spain), as per PCI call (or equivalent).</p> <p>Although private enterprises are not funded by the AEI, CDTI participates in this call. It is strongly recommend that AEI applicants participate in transnational consortia with partners obtaining funds from the CDTI or other Spanish innovation and technological development funding agencies.</p>
<p>Eligible topics</p>	<p>Topics 1 to 4.</p> <p>Topic 5 cannot be selected as main topic, but can be included as a cross-cutting topic in proposals addressing topics 1 to 4.</p>
<p>Eligible type of research and TRL</p>	<p>Fundamental/Basic Research, Applied Research, Experimental Research. All TRLs.</p>
<p>Additional eligibility criteria</p>	<p>Mandatory:</p> <p>The Spanish Principal Investigators (PIs) must be eligible as per PCI call (or equivalent) and must have experience as investigators in projects funded by the <i>Plan Nacional I+D+i 2008-2011</i>, the <i>Plan Estatal I+D+i 2013-2016</i>, the <i>Plan Estatal I+D+i 2017-2020</i>, ERC Grants, European Framework Programmes or other relevant international programmes.</p> <p>Incompatibilities (these must be taken into account when participating in different ERA-Nets or other international initiatives):</p> <ul style="list-style-type: none"> Principal Investigators will not be eligible for funding if they apply in more than one proposal of this transnational joint call, in more than one proposal in the same PCI call (or equivalent) and in PCI calls (or equivalent) of consecutive years. Principal Investigators must remain unchanged between the proposal of this transnational joint call and the national PCI call (or

	<p>equivalent).</p> <p>The AEI will avoid double funding and will not grant projects or parts of projects already funded through other national or EU calls.</p> <p>Funding rates</p> <p>The following funding limits are considered eligibility criteria. Proposals not respecting these limits could be declared non eligible.</p> <p>IMPORTANT: a maximum of two Spanish Partners requesting funding to the AEI in the same Proposal are allowed.</p> <p>Maximum direct costs <u>per proposal</u> (overheads can be added to these amounts):</p> <p>Maximum amount <u>per Proposal NOT coordinated by a Spanish partner</u>:</p> <ul style="list-style-type: none"> • If there is only one Spanish partner in the proposal, the maximum funding is 175.000€. • If there are two Spanish partners, the maximum funding amount per proposal is 225.000€. <p>If the Consortium is led by a <u>Spanish Coordinator</u>, the maximum funding amounts <u>per proposal</u> are the following:</p> <ul style="list-style-type: none"> • if there is only one Spanish Partner in the proposal, acting as Coordinator: € 250.000€. • if there is one Spanish Partner in addition to the Spanish Coordinator, the funding limit is € 300.000€. <p>Centers formed by different Spanish legal entities will be considered as a unique entity, and thus the maximum funding should not exceed the limits per proposal established above (for example, mixed centers).</p> <p>The final funding will take into account the transnational evaluation of the collaborative proposal, the scientific quality of the Spanish group, the added value of the international collaboration, and the financial resources available.</p>
<p>Eligible costs</p>	<ul style="list-style-type: none"> • Personnel costs for temporary employment contracts • Direct costs (VAT included) such as current costs, small scientific equipment, disposable materials, travelling expenses, coordination costs, and other costs that can be justified as necessary to carry out the proposed activities. • Overheads (maximum 15%). • Subcontracting special tasks to EU and non-EU countries (i.e. IT services, etc) is allowed within the limits legally established.
<p>Additional information</p>	<p>Instrument for funding the Spanish groups</p> <p>The instrument for funding the Spanish groups is the Spanish call on RDI projects “International Joint programming (PCI)”, applicants are encouraged to consult the PCI2020-1 and PCI 2020-2 since the requirements will be similar.</p>



	<p>Funding Programme:</p> <p>The framework for this funding action is the <i>Plan Estatal de Investigación Científica, Técnica e Innovación 2021-2023</i>. On a national level, the Call will be managed by the <i>Subdivisión de Programas Científico-Técnicos Transversales, Fortalecimiento y Excelencia</i> of the AEI.</p> <p>Data Protection:</p> <p>By submitting a grant application to the AEI, the applicants consent to communication of the data contained in the application to other public administrations, with the aim of further processing of the data for historical, statistical or scientific purposes, within the framework of the Organic Law 3/2018, of December 5, on Personal Data Protection and Guarantee of Digital Rights.</p> <p>Mandatory acknowledgement:</p> <p>Any publication or dissemination activity resulting from the granted projects must acknowledge funding by the Agencia Estatal de Investigación: “Project (reference nº XX) funded by the Agencia Estatal de Investigación through the PCI XX call (or its equivalent)”.</p>
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b) Funding rates

Maximum funding percentages:

Type of research	Universities and R&D Centres
Fundamental/Basic Research	100% eligible costs
Industrial/Applied research	100% eligible costs
Experimental Research	100% eligible costs



Spain - CENTRO PARA EL DESARROLLO TECNOLOGICO INDUSTRIAL (CDTI)

a) National eligibility criteria

Contact Point	Name: Milvia Soumbounou Garcia E-mail: Milvia.soumbounou@cdti.es Tel: (+34) 91 581 0579
Eligible entities	Eligible applicants must be for-profit enterprises (being Large companies or SMEs), established and carrying out RTDI activities in Spain. Other entities such as Universities, Public Research Institutions, Technological Centres, and other non-profit private institutions could participate under subcontracting by Spanish companies (subcontracting cannot exceed the 50% of the national project budget).
Eligible topics	1-4
Eligible type of research and TRL	Industrial/Applied Research and Experimental development TRL 4-7. Technology-based activities within industrial research and/or experimental development projects. Please note that non-technological activities, particularly those related to business models/processes, are excluded for CDTI funding.
Additional eligibility criteria	Additionally to the international application process, those applicants requesting funding from CDTI must submit a formal application via CDTI electronic submission system (https://sede.cdti.gob.es). Applicants are strongly advised to check the detailed information available on CDTI website and to contact the NCP for getting advice about national funding rules, before submitting a proposal.
Eligible costs	Eligible costs include: <ul style="list-style-type: none"> • Personnel costs, to the extent employed on the research project. • Instrument and equipment costs, to the extent and during the period in which they are used for the project. • Contractual research costs, technical knowledge and patents bought or licensed from outside sources at market prices, as well as costs of consulting services intended exclusively for the research project. • Other costs (operating expenses) including materials, supplies and similar products, exclusively used for the research project. Audit costs for the national reporting of the project (when applicable). • Additional general expenses (indirect costs, as a percentage of personnel costs).

b) Funding rates

Maximum funding percentages:



Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Fundamental/ Basic Research	40	50	60	Not eligible
Industrial/Applied Research*	40	50	60	Not eligible
Experimental development*	40	50	60	Not eligible

Spain / Navarra - Comunidad Foral de Navarra – Gobierno de Navarra (CFNA)

a) Regional eligibility criteria

Regional Contact Point	Ms Silvia Ojer sojertor@navarra.es (+34) 848 427658
Eligible entities	Universities, research institutes, SMEs and Large companies. All organisation must be constituted in legal entity.
Eligible topics	All
Eligible type of research and TRL	Industrial/Applied Research and Experimental development/Innovation TRL-1-9
Additional eligibility criteria	No entity can have over 70% of the total project budget
Eligible costs	<ul style="list-style-type: none"> ○ Personnel costs ○ Operational costs ○ Investment costs ○ Subcontracting

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Research centres, universities
Industrial/Applied Research	65%	75%	80%	100%
Experimental development	40%	50%	60%	100%

Sweden - VERKET FÖR INNOVATIONSSYSTEM (Vinnova)

a) National eligibility criteria

National Contact Point	Name: Anna Ottenhall E-mail: anna.ottenhall@vinnova.se Tel: +46 (0)8 473 30 71
Eligible entities	Universities, R&D institutes, SME's and Large companies, NGOs (associations, foundations, etc.). Organisations must be legal entities .
Eligible topics	All
Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research and Experimental Development TRL 1-7
Additional eligibility criteria	Swedish partners in a project proposal can together apply for funding of maximum 250 000 Euros in total
Eligible costs	Vinnova's grant is a contribution to the project's total eligible costs or parts thereof. The following costs are eligible (see link below for limitations): <ol style="list-style-type: none"> 1. personnel costs, 2. costs of equipment, land and buildings, 3. costs of consultants and licenses etc., 4. other direct costs including travel expenses, and 5. indirect costs. For more information see https://www.vinnova.se/en/apply-for-funding/rules-for-our-funding/terms-and-conditions-for-our-funding/ and https://www.vinnova.se/en/apply-for-funding/rules-for-our-funding/state-aid-to-companies/

b)National funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Fundamental/Basic Research	100	100	100	100
Industrial/Applied Research*	50	60	70	100
Experimental development*	25	35	45	100

* *Additional funding can be granted if special conditions are met, see <https://www.vinnova.se/globalassets/huvudsajt/sok-finansiering/regler-och-villkor/dokument/tabell-stodnivaer-statligt-stod.pdf>.*



Turkey - TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU (TUBITAK)

a) National eligibility criteria

Contact Point	Name: A. Serhat YILDIRIM E-mail: azmiserhat.yildirim@tubitak.gov.tr Tel: + 90 312 298 17 65
Eligible entities	Small, medium and large enterprises, universities, institutions and research organisations
Eligible topics	All
Eligible type of research and TRL	Fundamental/Basic Research, Industrial/Applied Research and Experimental development TRL 1-8
Additional eligibility criteria	At the same time as the proposal submission to the ERA-MIN3 ESS, the project coordinator of Turkish team in the consortium must apply to TUBITAK via project application system of TUBITAK (uidb-pbs.tubitak.gov.tr). All Turkish partners in the same international project should submit one application form to national application system
Eligible costs	Personnel, travel, equipment/tool/software, consultancy and service procurement, consumables.
Additional information	<p>TUBITAK will avoid double funding (overlapping with other international (EU) or national funding) and will not grant projects or parts of projects already funded.</p> <p>Mandatory acknowledgement for publication or dissemination activity resulting from the granted projects must acknowledge TUBITAK funding even after the end of the project by stating the project no. The logo of the TUBITAK cannot be used in any outputs of the project.</p> <p>The successful projects will be supported by TÜBİTAK 1071 Programme - Support Programme for Increasing Capacity to Benefit from International Research Funds and Participation in International R&D Cooperation. The purpose of the 1071 programme is to support research and innovation activities of the Turkish stakeholders via enabling the cooperation of academy and industry for the international R&D projects.</p> <p>For more information, see https://www.tubitak.gov.tr/sites/default/files/256_sayili_bk_islenmis_hali-1071-1_0.pdf</p> <p>It is highly recommended that the NCP should be contacted during the preparation of the project</p>

b) Funding rates

Maximum funding percentages:

Type of research	Large Enterprises	Medium Enterprises	Small Enterprises	Universities and research organisations
Fundamental/Basic Research	60	75	75	100
Industrial/Applied Research	60	75	75	100
Experimental development	60	75	75	100