

# Incoming call



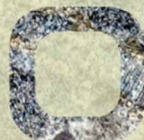
14-GREEN



Accept



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# WHAT IS I4-GREEN & THE OPEN CALL

I4-GREEN is an innovation project funded by the European Commission as part of the Interregional Innovation Investments (I3) Instrument that proposes disruptive technologies that will drive the green transition of mining companies. They tackle current needs of the industry as they touch upon resource efficiency, circular models and processes that have not yet been adopted by the sector. Innovation will be synergetic with up to 15 SME innovations plugged into the two pilots and all the RTOs engaged into the I4-GREEN ecosystem. The development and deployment of key, advanced technologies along 2 main demonstration sites where key companies and tech providers (mainly RTOs) will combine with third-party solution and tech developers.

**I4-GREEN consortium is pleased to invite you to submit a proposal in response to the project Open Call.**

Boosting EU  
Interregional  
Collaboration



I4-GREEN is industry-driven, with two pilots at its core, in need of deploying circular innovations to improve the sustainable supply of Raw Materials into the EU economy.

**Pilot 1** – Extremadura, Spain -With the objective is to improve the sustainability of iron ore production and the creation of a circular mine, and to create and develop a forefront technology to recover REE from iron mining waste, at time that reducing environmental impact and alleviating EU dependence on particularly Nd supply. (*See Technical Annex Pilot 1: IHO*)

**Pilot 2** – Andalusia, Spain – It will be implemented for scaling up hydrometallurgical leaching of primary sulphide minerals for the sustainable recovery of essential metals for the green transition. (*See Technical Annex Pilot 2: E-LIX*)

The aim of the I4-GREEN Open Call is to provide an opportunity to European SMEs in the target raw materials and mining sectors to develop products, technologies, solutions, and services in collaboration with SMEs from emerging and advanced sectors, and to provide direct financial support to SMEs through innovation vouchers.

## Reminder

**Project full name:** Interregional investment for the sustainable supply of raw materials in the EU Green Energy Transition.

**Project acronym:** I4-GREEN

**Call title:** I4-GREEN Open Call

**Direct financial support for SMEs:** up to 448.500,00€

Close

Got it



**I4-GREEN vouchers will be awarded in the form of a cascade funding of up to 30.000,00 € to each project proposal bringing a solution to the major challenges and needs of the I4-GREEN core pilots, described as follows:**

AXIS	Pilot	Voucher ID	Description
I	1	1a	The project proposal must study the environmental footprint of the pilot, including environmental threats, standards to be implanted, CO2 footprint, complete Life Cycle Assessment of the pilot and roadmap of actions to achieve the sustainable mining standards. The project proposal must include a methodology to improve logistics and reduce emissions resulting from the transport.
		1b	The project proposal must bring an exploitation and mining technique analysis for the pilot. The project proposal must rely on the present plans of the pilot and propose the necessary steps and analysis to guarantee the most sustainable solution to extract the raw materials reserves present in the deposit. A deep comparison between underground mining and open pit mining must be included and linked to a techno-economical and sustainability analysis that should include the factors and effects of mobile machinery.
		1c	The project proposal must propose different laboratory technologies and analysis oriented to valorise the tailings and secondary waste of the pilot. The project proposal must suggest different valorisation solutions and a collection of analysis that lead to either a preliminary plan for recovering other valuable or critical raw materials from the tailings, and/or a method or technology capable of reusing the generated waste in the pilot.
	2	1d	The project proposal must propose a deep study of the environmental safety of the processing systems, technological solutions and innovative plant at the pilot. The project proposal must include a list of risks and mitigation measures of the identified environmental threats, together with a complete Life Cycle Assessment of all the processes stages implemented at the pilot technology. The study must have a focus on the mandatory requirements to comply with all the EU industrial safety regulations, and how the pilot answers and will adapts to such requirements if needed.
II	1	2a	The project proposal must present a full water study for the pilot, including details on the technology and the precise process/plant design that will be used to ensure water recycling and reuse. Such study must be coupled to a hydrological assessment in the location of the pilot, identifying and quantifying the available water sources. The design of the project proposal must include a description of the methods and technologies to be applied and how they will be integrated. Solutions must comply with EU environmental regulations and must ensure that the use of sludge rafts is avoided.
	2	2b	The project proposal must bring a comprehensive innovative water management system engineering design for the processing technology that is scaling up in ATALAYA plants (E-LIX technology). The project proposal must address the assembly and integration of modules or technology solutions at different steps of the water treatment plant projected in the pilot will be also considered. The project proposal solution can focus on bringing innovative improvements making possible the ultrafiltration and osmosis to obtain demineralized water for the process from fresh water in an efficient and sustainable way.



III	1	3a	The project proposal must present a preliminary study and engineering design for the processing plant of iron and REE ore. The output of the project proposal must include a diagram of the processing plants required by the pilot, and the study must include a methodology to assess the energy consumption. Global design proposed must comply with an optimized energy consumption approach.
	2	Vouchers 3b, 3c, 3d and 3e will be oriented to improved elements, design concepts, safety measures and operation elements' design for the creation or the improvement of an innovative processing plant, based on the upscaling E-LIX technology.	
		3b	The project proposal must focus on innovative, resource efficient and sustainable solutions improving or implanting a new engineering design for liquid-solid separation by means of pressurized membrane filtration.
		3c	The project proposal must define innovative, resource efficient and sustainable solutions improving or implanting a new engineering design for the sedimentation and clarification of the Zn precipitate resulting as part of the process.
		3d	The project proposal must present innovative, resource efficient and sustainable solutions improving or implanting safety measures at the processing plant. The project proposal must focus on the fire protection system and provide the necessary roadmap of accreditation to comply with EU regulations.
	3e	The project proposal must focus on the implantation of an innovative, resource efficient and sustainable solution capable of integrating and managing the complete compressed air system at the pilot plant. The project proposal must fit the pilot plant design and demonstrate technical advantages with respect to other standard design and solutions. The project proposal must provide the necessary roadmap of accreditation to comply with EU regulations.	
IV	1	4a	The project proposal must design a viable and optimized solution for the renewable energy supply of the mining pilot. The project proposal must include a technical analysis of costs and solutions (techno economical assessment) of the energy supply, with a deep economical comparison between self-generation via the proposed scheme with respect to buying the energy into the market.
	2	4b	Renewable Energy Supply for the processing plant scale up. The project proposal must present a sustainable and highly efficient solar energy plant engineering design coupled and fitted to the operation needs of the processing plant at pilot 2.



# WHO MAY APPLY

I4-GREEN will fund individual innovative projects, according to the following rules:

- a. Applicants must be a SME (Small and Medium-size Enterprise) according to the EU definition<sup>1</sup> (including Public SMEs and start-ups).
- b. Applicants must be SMEs that are established in **the S3 participating regions covered by the I4-GREEN consortium**, including partners & associated partners regions (NUTS codes PT18, ES41, ES43, IT14, ES30, ES61, ES12, BE10, EL3, FI1D, FI1D, PT17, PT17, FRK2)
- c. A SME is considered eligible for I4-GREEN open call if it complies with ALL the following rules:
  - i. has not been declared bankrupt or have initiated bankruptcy procedures.
  - ii. has no convictions for fraudulent behaviour, other financial irregularities, unethical or illegal business practices.
  - iii. is not under liquidation or an enterprise under difficulty accordingly to the Commission Regulation No 651/2014 art. 2.18.

# WHEN TO APPLY – TIMETABLE

I4-GREEN Open Calls and awarded projects will follow the timetable described below.

Open Call opening date	07/07/2023
Open Call closure date/ Proposal Submission Deadline	15/09/2023 at 17:00 CET
Evaluation and selection	16/09/2023 – 16/10/2023
Communication of the decision to applicants	20/10/2023 (tentative date)
Project duration	6 months (fixed)
Start of the project	01/11/2023 (tentative date)
Payment 1	Prefinancing paid (50% of the budget) during the first month of implementation of the funded projects
End of the project	30/04/2024 (unless another date is notified, this end date is fixed)
Final report	The final report must be prepared and submitted within 60 days following the end date of the project
Payment 2	Final payment (50% of the budget) made after the approval of the final report, within 60 days after the report is submitted. <b>⚠ The approval of the final report shall be done within 60 days after its submission. Each I4-GREEN Pilot leader company will evaluate if the proposers achieved a successful project conclusion per selected axis and voucher.</b>

<sup>1</sup> [https://ec.europa.eu/growth/smes/sme-definition\\_en](https://ec.europa.eu/growth/smes/sme-definition_en)



# HOW IT WORKS – FUNDING CONDITIONS

The possible financial support for any SME in I4-GREEN call is up to 30,000 EUR per SME.

Maximum funding per SME	30.000,00 €
Type of financial support	Lump sum
I4-GREEN consortium may request additional evidence/documents to assess SME status, including its independence/ownership (please see <i>"Supporting documents", Section 3: SME OWNERSHIP DECLARATION</i> ).	
The total amount of direct financial support for SMEs in this Call is up to 448.500,00€. Depending on the quality of the received project proposals, the I4-GREEN Consortium reserve its rights to not distribute the total reserved budget.	
1 <sup>st</sup> Payment	50% pre-funding
2 <sup>nd</sup> Payment	50% paid within 60 days after final report is approved by pilot leaders' companies

## OTHER INFORMATION

**Submission language:** English

**Mandatory documents for submission:** "Voucher application" + "Supporting documents"

Check our website for all the open call information: <https://i3-i4green.eu/index.php/opencall/>

For any enquiries regarding the I4-GREEN project please contact:

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# Join us!



## I4-GREEN

### Consortium



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