



MINING LAB

BEGINNINGS

IV Edition



nexa

INDEX

- 01** The Program
- 02** Eligibility
- 03** Application Models
- 04** Challenges
- 05** Program Stages
- 06** Evaluation
- 07** Program Schedule
- 08** Obligations and Responsibilities
- 09** Program Termination
- 10** Additional Information
- 11** General Provisions
- 12** Annexes



Click on the topics above to browse the document.

1

THE PROGRAM

1.1

The Mining Lab Beginnings Program ("Program") is developed by Nexa in partnership with Escalab to support researchers and other academic professionals in the process of developing technological innovations for the mining and metallurgy industry. The main objective of Mining Lab Beginnings is to identify innovative projects in the early ideation phase (characterized by a low Technology Readiness Level or TRL) or those requiring significant customization to address Nexa's challenges.

Incubators, research centers, startups, colleges, universities, and companies capable of planning, scaling, and executing conceptual R&D through proof-of-concept testing are eligible to apply for the program.

About Nexa

[Nexa Mineral Resources S.A.](#) ("Nexa") believes in the value of partnerships and collaborative efforts in developing technological innovations for the mining and metallurgy industry. Solidity, ethics, respect, entrepreneurship, and unity are the guiding principles of Nexa, formalized in its [Code of Conduct](#). Therefore, Nexa actively seeks innovative projects to complement internal efforts in key areas of mining and metallurgical exploration.

About Escalab

Escalab UFMG ("**Escalab**") is a technology scaling and modeling center with the objective of transitioning hard science technologies from the laboratory to the market. Additionally, Escalab is a partnership between UFMG (Federal University of Minas Gerais), the MIDAS network of researchers spread across Brazil, and the SENAI Technological Innovation Center representing industry interaction. The mission is to transform society by promoting the ramp-up of technologies through scaling and business acceleration. More information about Escalab can be found on the [official website](#).

About Mining Lab

Mining Lab is Nexa's open innovation platform and has 5 programs to encourage innovation and entrepreneurship through challenges related to the mining and metallurgical sector together with partners from different sectors.

Program Goals

1.2

The present regulation aims to define rules, access conditions, and the operation of the Mining Lab Beginnings Program ("Program"), resulting from the partnership between Nexa and Escalab. The program is centered around the prospecting of laboratory technologies in scientific and technological research institutions that are in the ideation phase (conceptual study or proof of concept) and/or have advanced-stage proof of concept or completed projects for the challenges presented here.

1.3

The program is not determined by any kind of lottery, not subordinated to any kind of chance, luck, risk or payment by the participants (in compliance to Brazilian Law 5.768/1971, article 3, paragraph II), under the terms and restrictions provided by these Rules.

1.4

The Program is expected to last approximately 7 (seven) months, with the possibility of alterations if deemed necessary by Nexa and Escalab. It will encompass stages from contracting, procurement, work plan, followed by conceptual R&D, EVTE development if applicable, to the Demoday presentation. The discussion of ideas throughout the Program does not guarantee intellectual property ownership by Nexa or Escalab over the concepts discussed during the entire duration of the program.

Definitions

Judging Panel

The team responsible for evaluation in the program stages consists of members from Escalab and Nexa.

Demoday

Event in which the proposers who advance to the final stage will have the opportunity to present their projects to the judging panel.

Organizing Team

Collaborators from Nexa, Escalab, or those appointed by them are responsible for program execution.

EVTE

(Technical and Economic Feasibility Study)

A program stage during which a technical, economic, and commercial feasibility study of the project will be conducted for the final selection of the winning initiative.

FUNDEP

(Research and Development and Foundation)

The institution responsible for financial management of the Program in Brazil.

NDA

(Non-Disclosure-Agreement)

Confidentiality agreement to be executed by the Parties as per the attached template to this document.

Parties

Refers to entities involved in the Program: Nexa, Escalab, and Proposers.

R&D

(Research and Development)

An activity conducted in laboratories and included in the Conceptual R&D stage.

Conceptual R&D

A program stage during which the following activities will take place: (i) Contracting, (ii) R&D, (iii) EVTE, and (iv) Selection. The objective of this stage is to carry out tests that can validate the proposed route in the project by the Proposer.

Project	An idea that will be developed during the Program by a Proposer.
Proposer	The team applying for the program that will be responsible for project execution. The eligibility criteria for proposers are outlined in this document.
Prospecting Ideas	A program stage during which a literature review will be conducted, as well as the exploration of ideas with the aim of proposing route(s) to address the challenge outlined in the Program.
Representatives	Directors, executives, representatives, and/or employees, agents, partners, researchers, students, subcontractors, officials, or other individuals appointed by the Proposer.
TRL (<i>Technology Readness Level</i>)	Technology Readiness Level.

Why participate?

1.5

The following benefits may be made available, at Nexa's discretion, to the proposing companies:



Financial resource of R\$ 20,000.00 (twenty thousand Brazilian reais) for developing the solution/technology (purchase of inputs and team scholarships).



Collaborative work with Escalab and Nexa teams for the initial development and validation of selected projects.



Promotion of partnerships for co-development of new technologies and solutions with Nexa.



Facilitate the integration of the academic community with technological innovation and the market.



Opportunity to become a supplier to Nexa and, potentially, of other company of the Votorantim Group.



Possibility of conducting tests in a factory environment with Nexa and/or Escalab technical support following Conceptual R&D.



Access to project scaling development methods, including but not limited to training, feasibility studies, and support.



Possibility of reinvestment at the end of the program for technology scaling and market connection (startup establishment and/or technology transfer).

2

ELEGIBILITY

2.1

The participants considered eligible for this Program are:

Members of teaching and/or research institutions duly constituted and registered with the competent bodies and regular according to the law and the constitutive acts of their respective countries at the time of enrollment in the program;

Citizens of Brazil or foreign nationals with proper documentation, eligible to remain in the country throughout the Program, holding either completed or ongoing higher education;

Startups and/or companies with regular activities duly established and registered before the competent and regular authorities in accordance with the law and the constitutional acts of their respective countries at the time of enrollment in the program;

Among the technical staff hired by the Proposer, there must be at least one (1) person allocated for the management and development of the Project.

2.2

The following factors will be considered grounds for disqualification and exclusion from the program:

The Proposer includes in its group of researchers, participants, and/or partners an individual or entity who, directly or indirectly, has been assessed by direct relatives serving on the Judging Panel of this program;

The Proposer or any of its Representatives has a current commercial agreement or any other relationship, contractual or otherwise, related to their Project presented in the program, with a market player in Brazil and/or globally that may be deemed a competitor of Nexa;

The Proposer or any of its participants has been convicted, declared guilty, or accused of any crime, including acts involving fraud, embezzlement, corruption, or bribery in any jurisdiction or country;

→ To participate or intend to participate in other programs with conflicting schedules with the timeline of this program. If Nexa understands that the schedule of another project may harm the development of this project, it may, at its sole discretion, disqualify the proponent during the process;

→ Not accept the conditions for disclosing sensitive or deemed confidential information necessary for the program, starting from the signing of the NDA (Annex III);

→ The Proposer fails to comply with any procedures, formal instructions, or deadlines issued by Nexa;

→ Violate, by any means, the intellectual or industrial property of third parties, such as trademarks, patents, utility models, or computer programs (software);

→ Be under the age of 18 (eighteen) years;

→ Proponents presenting images and texts of erotic or inappropriate content, inconsistent registrations (false data), misuse of images of public figures or third parties, use of inappropriate words and terms, or violations of any policies or the image of Nexa, Escalab, or third parties at any stage of the Program;

→ Proponents who, at the exclusive discretion of the Judging Panel, were not deemed fit to proceed to subsequent phases of the Program will be disqualified.

3

APPLICATION MODELS

- 3.1** The Mining Lab Beginnings 2024 is interested in gaining insights into the profile of Proposers even before the Conceptual R&D phase begins. In this regard, it is noteworthy that during the proposal submission process, the Proposer must indicate on the registration form which profile best aligns with their intentions. There are two types: **Proposer - Technological Mode and Proposer - Entrepreneurial Mode.**

Proposer – Technological Mode

The Proposer - Technological Mode is one whose efforts are solely focused on the technical aspects of the technology/solution under development. Consequently, the Proposer has no intention of undertaking entrepreneurship and/or establishing a startup to operate in the future or manage the knowledge developed in the program. However, there is still a profound desire for the technology to evolve and eventually be applied in the industry.

In this mode, the Proposer will be responsible for the technical development of the solution and the creation of the process's mass and energy balance flowchart. Additionally, there is the possibility of generating publications (papers) or using the work in master's, doctoral, or post-doctoral projects. The project will be funded by Nexa.

Benefits

The following benefits may be provided exclusively for those enrolled as Proposer - Technological Mode:

- 1 Possibility of publishing the developed work;
- 2 Potential use of the project's development for other master's, doctoral, or additional projects;

3

Connection with the partner company and opportunities for collaboration on other projects;

4

Agile R&D methodology for proof-of-concept validation;

5

Learning the methodology for scaling and technical and economic feasibility studies.

Proposer – Entrepreneurial Mode

The Proposer - Entrepreneurial Mode is one who, in addition to addressing the technical aspects of the technology/solution under development, possesses a desire to undertake entrepreneurship. They seek to be involved in all stages of creating a startup and launching a new product or solution in the market. Alternatively, they may already be part of a startup or a company operating in the market.

In this mode, the Proposer will be responsible for the technical development and the economic feasibility study of the technology, with a focus on its scaling. To facilitate this, full support will be provided by Escalab.

Benefits

The following benefits may be offered exclusively to those enrolled as Proposer - Entrepreneurial Mode

1

Support from the Escalab team in developing the business model and conducting the technical and economic feasibility study of the technology;

2

Assistance from the Nexa and Escalab teams in conducting technology tests with clients/partners in relevant environments;

3

Aid from the Nexa and Escalab teams in securing the necessary investments for the setup and operation of the startup;

4

Involvement of the Nexa engineering team in scaling the process/technology;

5

Opening your own business or expanding your portfolio through a partnership with Nexa.

4

CHALLENGES

4.1

In this section, we present the challenges for this Program cycle.



Theme: Circular Economy

CHALLENGE 1

New Applications for Aripuanã Tailings

Challenge Description

At the facility located in Aripuanã, concentrates of zinc, copper, and lead are processed. This is an exemplary venture in the country, as it does not rely on tailings dams for waste disposal; instead, dry stacking is employed. This approach aims to transform waste into new materials, potentially avoiding the need for stacking altogether.

In this process, three types of waste are formed: the first is rich in talc, the second is obtained during zinc flotation and is rich in quartz, and the third is a combination of the others. Therefore, aligned with environmental, social, and governance (ESG) objectives, **the challenge in Aripuanã is to develop new treatment routes or commercial/industrial applications that utilize the mentioned tailings.**

Further details about the challenge and additional information essential for its resolution are available [here](#).

Challenge Description

The Cerro Lindo Mining Unit (U.M.) is a polymetallic underground mine owned by Nexa that engages in exploration and mineral beneficiation activities, generating tailings. These are primarily characterized by their significant content of pyrite, silicates, and, to a lesser extent, barite.

The dewatering technology used for tailings disposal is filtration, involving a thickening stage followed by filtering to achieve moisture levels between 12-14%.

Approximately 50% of the filtered tailings are sent for backfilling in the mine, and the remainder is disposed of in piles. These filtered tailings deposits (DRF) periodically require efforts to extend their lifespan and ensure the continuity of the production process.

Aligned with the company's environmental, social, and governance (ESG) objectives, where circular economy is a fundamental pillar, Nexa seeks solutions for the utilization of Cerro Lindo Mining Unit tailings that enable:

- I) **Utilizing the tailings or pyrite directly as raw materials for industrial applications;**
- II) **Alternatively, conditioning the tailings or pyrite, applying treatment through hydrometallurgical, pyrometallurgical processes, or other methods, to enable their use as raw materials in industrial applications.**

Additional information, such as chemical characterizations of the starting mineral and the generated residue, along with more details, can be accessed [here](#).



Theme: Decarbonization

CHALLENGE 3

Bio-briquette production

Challenge Description

In line with ESG practices, Nexa has been exploring biogenic fuels, known by the acronym CHONPS, as a substitute for coarse coke in the Waelz process. One promising alternative is bio-briquettes, which can be produced from these biogenic residues. However, developing new biogenic fuels for use in the current process is quite challenging due to the inherent characteristics of the process and the fuel currently used.

Currently, Nexa uses electric arc furnace dust (EAFD) powder and coke to feed the process. **To enhance the quality of the zinc recovery process, Nexa is seeking new suggestions to produce alternative bio-briquettes that will initiate the process.** For this purpose, the bio-briquettes need to have thermal resistance and be less reactive so that they can provide energy and carbon at 900-1000 °C. Additionally, they must exhibit high compression strength compared to coke to withstand the rotation and the initial zones of the Waelz furnace.

More details about the Waelz process and other relevant information for this challenge are available [here](#).

Challenge Description

The zinc oxide (ZnO), a white chemical compound widely used in the production of paints, pharmaceuticals, ceramics, among others, is produced by Nexa. The production process is based on the volatilization of metallic Zn and oxidation of the formed vapors. Additionally, the process consists of 47 crucible-type furnaces arranged in 4 batteries, and the currently used fuel oil to power the process mainly comes from fossil fuels. With the aim of diversifying its energy matrix by testing new alternative oils and striving for a more efficient, sustainable, and safe operation, bio-oil is already being used in some furnaces.

Proposals are expected to involve one of the two technological routes mentioned below and/or an additional measure, namely:

- I) Pyrolysis plant route that uses eucalyptus chips to obtain bio-oil after fast pyrolysis;**
- II) Route that enables obtaining bio-oil through the use of vegetable tar from the steel industry;**
- III) New possibilities for separating fines present in the currently used bio-oil.**

Therefore, the challenge regarding bio-oil neutralization involves developing solutions that reduce the corrosive effect of the biofuel and allow the use of equipment made or coated with carbon steel. The main characteristics of bio-oil are known, making it possible to use them for comparison. This and other information can be accessed [here](#).

5

Program Stages

5.1

The Program is divided into three stages: Prospecting Ideas, Conceptual R&D, and Demoday. Each stage comprises activities and events, which are outlined below:



Prospecting Ideas

Registration and Application
Selection I
Interview I
Interview II (*Feedback*)
Selection II



Conceptual R&D

Hiring
R&D
EVTE
Selection III



Demoday

Demoday
Final Selection

5.2

To achieve the proposed objective, development activities will be conducted, along with diffusion and interaction activities and dynamics between the Proposers and Nexa.

5.3

At each stage of the Program, Nexa will determine which documents/materials should be submitted by the Proposers, as per the annexes outlined in this regulation (Annex I). In the event of non-submission of the required documents/materials by the deadline established by Nexa, the proposer will be disqualified from the program without the possibility of appeal.

5.4

During the selection period, or at any time or stage outlined in this regulation, the Proposer may be contacted for clarifications about the Project and must respond to demands within 03 (three) consecutive days, under penalty of immediate disqualification from the Program.

5.5

The selection process will be conducted in an eliminatory manner at all stages.



PROSPECTING IDEAS



Registration and Application

5.6

The application process for a proposal begins with the completion and submission of the form. [Click here](#) to access it.

It is essential to fill in all information related to your project and its representatives following the guidelines of the registration platform available on the program's website.

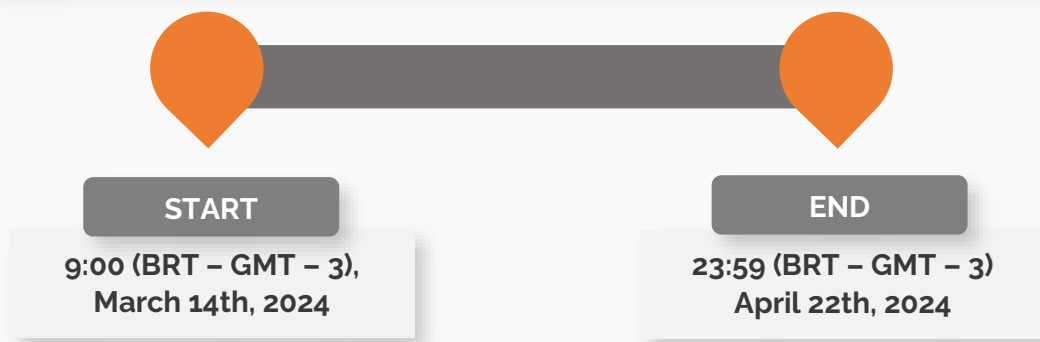
As it presents more than one challenge, it is at the proposer's discretion to choose which challenge to address, and this should be indicated on the registration form.

Any mistakes in completing the form, such as inaccurate content and partial fulfillment, will be the sole responsibility of the participant, and no rectification will be accepted after finalization and submission.

Failure to complete all necessary information or providing false information may result in disqualification.

The acceptance of the terms of these Rules and the Confidentiality Agreement is required for the registration to be successful.

5.7 The registration period for the program is:



This registration period may be extended at the sole discretion of Nexa, with an announcement published on the official program website (mininglab.com.br/beginnings) and on Nexa's and Escalab's official communication channels (Instagram and LinkedIn).

5.8

Registration will be automatically confirmed upon the submission of the completed form with all responses. In the event of not receiving confirmation within the previously stipulated period, the proposer should contact via email (mininglab@nexaresources.com).

5.9

Nexa and Escalab hereby guarantee the confidentiality of the information of the submitted Projects, which will only be used for the purposes outlined in this regulation.



Selection I

5.10

Innovative projects that best meet the selection criteria defined by the Judging Panel and, at Nexa's sole discretion, have synergy with the business and potential to address the challenge will be selected immediately after the registration deadline.



Interview I

5.11

It involves a conversation between evaluators and Proposers, to be scheduled in the future. Interview dates will be negotiated between Nexa and the Proposer and will be defined after Selection I.

5.12

Interviews will take place from May 6th to May 17th, 2024. These dates may be subject to change at Nexa's discretion, with communication of changes on the official Program website.

5.13

Non-attendance at the interview will result in the automatic elimination of the Proposer.

5.14

All instructions for the stages of the program will be provided to Proposers in the future, who commit to producing and delivering the requested materials and participating in the interview.

5.15

The Organizing Team will contact the Proposer of any modality through the contacts provided in the registration form, not being responsible for any contacts that are incorrectly provided. The submission of contacts for the individuals responsible for each proposal is the sole responsibility of the person in charge of the Program registration.

iv

Interview II

5.16

Consists of an online meeting aimed at providing feedback and discussing the next steps of the proposal presented by the Proposers.

5.17

The dates of Interview II will be negotiated between Nexa and the Proposer and will be defined after Interview I. The scheduling will be based on the availability of the evaluators and the Proposers.

v

Selection II

5.18

Innovative projects that best meet the selection criteria defined by the Judging Panel and, at Nexa's sole discretion, have synergy with the business and potential to address the challenge will be selected after Interview II.

5.19

The announcement of the selected projects in this stage will be made via email to the contacts provided in the registration form. The Organizing Team is not responsible for non-receipt of the email by the Proposers.



CONCEPTUAL R&D

5.20

It consists of contracting the Proposer to carry out bench-scale tests to prove the technical feasibility of the proposed solution. This stage will take place between June 3rd and November 29th, 2024.

i**HIRING****5.21**

The contractual instrument for the execution of bench-scale tests must be signed. The work proposal must be carried out with the Organizing Team. The lack of agreement between the parties on the activities to be carried out will lead to the elimination of the Proposer.

5.22

The work proposal, as well as the documents required at this stage, according to Annex I of this document, must be submitted before the start of the Hiring, within the deadline to be informed by the Organizing Team. In addition to these, other documents may be requested from the Proposers.

ii**R&D****5.23**

There will be the execution of bench-scale tests and the characterization of the generated products. The tests may be carried out in the laboratory of the institution to which the Proposer is affiliated. It is at the exclusive discretion of the Judging Panel to accept or reject the work plan.

5.24

If the Proposer is not affiliated with an institution and is interested, they may conduct their tests at Escalab's laboratory in Brazil (CIT Senai, Belo Horizonte, Minas Gerais).

5.25

The laboratory infrastructure is presented in Annex II of this regulation.

5.26

The management of the tests will be carried out by the Proposer, and the workforce for the tests will be provided by Escalab. Prior notification and authorization from Nexa will be required for the use of Senai's facilities.

5.27

The quantity of samples required for test development will be negotiated between the Proposer and Nexa.

5.28

In the case of R&D conducted in Brazil, funding for this stage will be transferred via FUNDEP to Proposers - Technological or Entrepreneurial Modality who have not yet opened their companies and will do so during the program, so they can carry out the tests and technical validations in their laboratories. If the Proposer chooses to conduct this stage at Escalab, funding management will be carried out by Escalab and should only be allocated to the purchase of the necessary inputs for the execution of the work proposal.

5.29

In the case of R&D conducted in Brazil, for Proposers - Entrepreneurial Modality, who already have an active and regularized CNPJ, the project's funding will be transferred through the company's contract with Nexa. The payment flow is described in the following items:

Proposer Registration

The proponent will be registered through the *IzCheck* platform. For this, Nexa must be informed of the CNPJ and email of the person responsible for the registration, who will receive a link to complete the pending steps. After the registration is completed and approved, payments will be made following the Measurement Bulletin, Service Record Sheet, and Invoice flow.

Measurement Bulletin

Document sent by Nexa defining the percentage of the payment to be invoiced on the Invoice. The document must be signed by both parties.

Service Record Sheet

After signing the measurement bulletin, Nexa will send information through this sheet that must be included in the invoice, including the invoiced amount, service description, and the deadline for issuance.



Invoice

Only those issued in accordance with the instructions contained in the Service Record Sheet will be accepted. Payment will be made 60 days after the invoice is issued, respecting the payment window on the 7th or 22nd of each month.

5.30

The amount allocated to each Proposer will be a maximum of R\$ 20,000.00 (twenty thousand reais) and must be exclusively used for the Project. A reasonable justification for the use of the mentioned funds must be provided in the work plan.

5.31

The proponent who presents a potential solution will be called to initiate discussions about a partnership agreement (IP) at the beginning of October.

5.32

The R&D results must be delivered by the end of October 2024. This deadline may be changed at the discretion of the Organizing Team.

5.33

Selected Proposers will receive support for Project development, initial feasibility studies, and laboratory experiments from Escalab. Both parties commit, through the signature of the Proponent, Escalab, and Nexa, to purchase the necessary materials and supplies for the laboratory experiments of selected researchers who demonstrate a need and receive authorization for use. If a researcher is unable to find suitable space for experiments, Escalab will provide a representative for laboratory testing within the mentioned laboratory.



EVTE

5.34

Technical and economic feasibility studies will be conducted for each Proposer at the end of the R&D to consolidate the Project's result.

5.35

The model to be used for the construction of the EVTE will be sent to all Proposers via email during the Program, and its development will be in collaboration with the Organizing Team and members of the Evaluation Panel.

5.36

The delivery of the EVTE will be defined later, at the time of hiring each proponent's work proposal.

iv

Selection III

5.37

Projects that best meet the selection criteria defined by the Evaluation Panel and, at Nexa's sole discretion, have synergy with the business and the potential to solve the call's challenge will be selected after the submission of the EVTE and analysis by the Evaluation Panel.

5.38

In the event of non-delivery or poor performance assessed by Nexa, the Proposer will not present their solution and results at Demoday.

5.39

The announcement of the selected participants in this stage will be made via email and may also be carried out through Nexa's and Escalab's social media channels (Instagram and LinkedIn).

5.40

Only the selected proponents after this stage will present their solutions and results at Demoday.



DEMODAY

5.41

The Demoday will take place in December 2024, where the Proposers approved after Selection III will present the Project results to the Evaluation Panel, composed of impartial, independent judges with unblemished reputations, whose decisions will be sovereign and unappealable.

5.42

The Demoday date may be changed at Nexa's and Escalab's discretion. If so, the new date will be updated on the official program website, and the approved Proposers will be notified via email.

5.43

Projects will be evaluated and scored by the Evaluation Panel, being selected exclusively according to Nexa's interests.

5.44

The presentation is exclusive to members of the Evaluation Panel and will take place online. The meeting link will be sent via email by the Organizing Team, along with other instructions.

5.45

Approval at Demoday does not necessarily imply approval of the team for future projects or Nexa Platforms, but it is a possibility that follows Nexa's discretionary judgment.

5.46

The Demoday selection results will be disclosed by email and may also be published on the [official Program website](#).

Points of Attention



Program meetings will take place via an online platform, to be decided in the future, and each project will have individualized access and support during Program development. The in-person/experimental part of this stage may be conducted in the Proposer's institution laboratories as indicated and in partner laboratories, as specified. The use of the laboratory must comply with the regulations established by the partner institution.



It is hereby established that the acquisition of equity stakes in the vehicles used by the proposers for project development is not included in the scope of this program.



POST-DEMODAY

5.47

After Demoday, alignment meetings will be held between Nexa and the selected proposers on a case-by-case basis to identify and draft the most suitable contract for both parties.

5.48

At this stage, the commercial and licensing conditions for each project will be defined, strictly following the terms of this regulation.

5.49

If the parties do not reach an agreement, there is no obligation to close the contract.

Non-competition

5.50





Proposers and approved projects that sign a contract with Nexa are subject to any non-competition clause that will be analyzed on a case-by-case basis, according to the extension and scope of the project.

6

EVALUATION

6.1

The Organizing Team and the Evaluation Panel rely on a team of professionals with extensive knowledge in the entrepreneurship and innovation ecosystem and in new business models, as well as significant expertise in the technical field of mining and metallurgy based on the following criteria for the classification of projects:

	Team	<ul style="list-style-type: none">(i) Team capacity regarding solution development and ability to turn into a business;(ii) Future vision for the business and proposed strategies.
	Technology	<ul style="list-style-type: none">(i) Effectiveness of the solution, its maturity level, and the feasibility of its production at scale;(ii) Possibility of generating new solutions from the base technology(s) used and the level of technology contribution to the mining chain.
	Solution and Risk	<ul style="list-style-type: none">(i) Degree of innovation, technological risk, expected product impact, and market competition strength;(ii) Evaluate how the solution (product/service) meets Nexa's demand(s);(iii) Whether the business model is interesting and allows the construction of a scalable and competitive business.(iv) To verify the necessary investment and the legal/compliance feasibility for the development of the solution.
	Economic and Legal Feasibility	<ul style="list-style-type: none">(i) Assess the solution's impact on cash costs;(ii) Project's ability to strengthen Nexa's image;(iii) Business Model – commercial and operational;(iv) Required capital investment (capex).

6.2

The goal of the evaluation is to analyze the solution and proposal evolution as new alignments are made, but the selection will be made exclusively according to Nexa's interests.

7

PROGRAM SCHEDULE

7.1

The schedule and planned dates for each stage of the **Mining Lab Beginnings** program can be found on the official website: www.mininglab.com/beginnings

7.2

All stages, activity durations, and planned dates are subject to changes at the sole discretion of Nexa. In case of any changes, they will be communicated on the official Program website.

Registration period

March 14th to April 22nd

Selection I

May 6th to 17th

Interview + Selection II

May 6th to 31st

Hiring

June 3rd to 28th

R&D + EVTE + Selection III

July 1st to November 29th

Demoday + Selection IV

December 2nd to 20th

8

OBLIGATIONS AND RESPONSIBILITIES

The obligations of Nexa and of the Proposers are to:

8.1

Comply with all the terms of the present Rules, as well as those contained in any documents that may be signed between Nexa and the Proposer.

8.2

Actively participate in the events and actions planned for each stage of the program and provide all the information and documents necessary for each program stage.

8.3

Authorize Nexa to use the brand, name, and image of the proponents, as well as its partners, employees, and collaborators, for dissemination in internal and external means of communication, free of charge, without limitation of time or territory, for any purpose to be determined by Nexa. The bidder must ensure and submit to Nexa the proper terms of use of the image, which are their exclusive responsibility and competence.

8.4

Grant an exclusive, non-revocable, global, and indefinite license to Nexa, relating to all the applicant's image rights, as well as its partners, employees, and collaborators, for Nexa to disclose and expose such images freely with any third parties and for any purposes relating to the program, in any form, material or medium in which such right may be registered or maintained.

8.5

Nexa guarantees the confidentiality of all the information and documents provided by the projects, which will only be used for the purposes described in this Regulation.

8.6

Nexa is not responsible or liable for any damages or losses arising from the participation in this program or from the eventual acceptance of the benefits by the Proposers.

8.7

Any taxation on the remuneration, investment, or financial transactions to be carried out by Nexa related to the program will be exclusive responsibility of the participant, even if collected by Nexa as determined under Brazilian law. In that sense, the participant shall reimburse Nexa or write off its credit if Nexa has collected tribute on their behalf.

8.8

It is hereby established that the acquisition of equity interest in the corporate entities incorporated by the participants to develop the projects is not included in the scope of this program.

Confidentiality

8.9

The involved parties commit to treating as confidential all information regarding the Projects that have been disclosed to them, agreeing not to disclose them to third parties without their knowledge and consent, under penalty of civil and criminal liability and compensation for proven losses and damages.

8.10

The terms and conditions for the development of selected projects and the promotion of research will be confidential and the subject of confidentiality agreements to be duly executed with the chosen Proposers.

8.11

The exchange of confidential information will only occur upon the execution of a confidentiality agreement signed by all involved parties. **For entry into the Conceptual R&D stage, the signing of the NDA, via digital platform, between the Proponent, Nexa, and Escalab will be necessary.** The documents will be sent directly to the responsible parties for signature and can be found in [Annex III](#) for prior analysis. Reiterating that the signing of this document is a prerequisite for advancing in the program.

8.12

It is reiterated that all intellectual property will be shared in confidence and there will be no division of ownership until Demoday. For proponents selected for the development of projects after Demoday, the division of intellectual property will be addressed in a specific contractual instrument.

Personal Data Protection

8.13

The parties undertake to treat the personal data involved in the preparation and necessary for the execution of this program and regulation, solely and exclusively to fulfill the purpose for which they are intended and in compliance with all applicable legislation on information security, privacy, and data protection, including, but not limited to, the General Data Protection Law (Federal Law No. 13.709/2018, "LGPD"), the Peruvian Law on Personal Data (Personal Data Protection Law No. 29.733, "LPDP") and the European General Data Protection Regulation (General Data Protection Regulation No. 2016/679, "GDPR"), under penalty of liability for losses and damages.

9 PROGRAM TERMINATION

9.1

The program will be considered terminated for any participant in the following cases:

- ▶ End of the duration of the program.
- ▶ If there is a breach of any clause of the present Rules or of the Confidentiality Agreement or of the final Agreement.
- ▶ In case of insolvency, bankruptcy, or receivership of the participant.
- ▶ If the intellectual property developed within the scope of the project is granted to a third party, even temporarily.
- ▶ On Nexa's initiative, at any time, without the obligation of justification.

9.2

Without prejudice to the previous provisions, the program will be considered automatically terminated if the participant is not selected by Nexa to continue in the next steps of the program.

9.3

Participants who commit any type of fraud will be summarily excluded and will still be subject to criminal and civil liability, in addition to being held responsible for the damage caused.

10 ADDITIONAL INFORMATION

Auditing

10.1

Nexa shall have the right to audit or examine, to verify the compliance with the terms of the present Rules or the partnership contract, when appropriate, the faithful execution of the terms set forth in this instrument and in the contract, as well as the books and accounting records of participant. Nexa expressly reserves the right to hire an independent auditor or expert to conduct said audit or examination to the extent that such independent auditor wishes. In a reasonable time after the audit or examination, Nexa may provide the participant with a copy of the report of such audit or examination.

If it is concluded that the participant did not comply with this instrument, the participant will be immediately disqualified from the program. The participant's failure to cooperate, regarding such audit or examination, shall constitute a violation of this instrument, justifying the immediate exclusion of the participant from the program.

Anti-Corruption, Anti-Money Laundering, and Anti-Trust Statements and Warranties

10.2

The Parties declare that they observe and comply with the "Compliance Laws", as well as maintain internal rules and procedures that ensure full compliance with these laws. For purposes of this provision, it is understood as "Compliance Laws" any laws, domestic or foreign, to which the Parties are subject and that have the purpose of restraining from the practice of corruption or harmful acts to the public administration, money laundering and terrorism, promoting the defense of competition and that deal with economic and commercial sanctions, such as, but not limited to, the Brazilian laws: Law No. 12. 846 of August 1, 2013, as amended, Law n°9.613 of March 3, 1998, as amended, Law n°8.429 of July 2, 1992, as amended, Law n°13.260 of March 16, 2016, Decree-Law n°2.848 of December 7, 1940, as amended, Decree n°5.640 of December 25, 2005, Law n°12.529 of November 30, 2011, and also including the U.S. Foreign Corrupt Practices Act of 1977 and UK Bribery Act 2010.

10.3

The Parties are in full agreement and are fully aware that the fulfillment of the provision above mentioned comprises, without limitation:

Abstain from practicing acts of corruption and from acting in a harmful way to the public administration, national or foreign, as applicable, in the interest or for benefit, being it exclusive or not.

Abstain from practicing private corruption acts of any nature.

Act with pro-competitive objectives, promoting the economic interests of the sectors in which they operate.

Assure that the funds used for the execution of their activities have a suitable origin and destination.

10.4

Once the violation of the Compliance Laws by any of the Parties is proven, in any of its aspects, the innocent Party will have the prerogative to immediately, without any burden or penalty, and at its sole discretion, suspend or terminate the object of this instrument or any negotiations, joint projects and/or potential businesses to which it has bound itself with the breaching Party.

Jurisdiction and Dispute Resolution

10.5

This program, regulations, and NDA, as well as any and all documents entered into under the program, are governed and construed by the laws of the Federative Republic of Brazil. The Central Forum of the Judicial District of São Paulo is hereby elected as the sole competent jurisdiction to resolve any and all disputes arising from the interpretation or execution of these regulations, including any issues related to the relationships established between Nexa, the proposers, and third parties, by virtue of this instrument.

11

GENERAL PROVISIONS

11.1

The actions that shall be taken to determine the future capability of the implementation of projects supported by this program will be discussed on a case-by-case basis, timely with all interested parties.

11.2

All issues related to the protection and/or transfer of intellectual property rights inherent to the projects supported by this program will be subject to individualized analysis.

11.3

Any changes to these Rules will be posted on the program's website: mininglab.com.br

11.4

Throughout the program, communications should be conducted exclusively via email: mininglab@nexaresources.com

11.5

Omissions shall be decided exclusively by Nexa, at the discretion of the Board, with no reasoning required.

11.6

The present document may be altered, suspended, or canceled without prior notice by force majeure or any other unforeseen factor or reason that is outside the control of Nexa and jeopardizes the program to prevent or substantially modify its operation as originally planned.

11.7

Merely participating of this program implies full knowledge and unrestricted acceptance of these Rules.

11.8

Any tolerance or concession by Nexa or the program evaluation panel regarding the rights, obligations and responsibilities contained in this regulation shall be interpreted as a mere liberality and does not imply the modification or novation of the terms and conditions stipulated herein.

11.9

The provisions of this document may be subject to change due to changes in movement and circulation restrictions imposed by local governments.

I. Documents that must be presented to the Organizing Team

The list below outlines the documents and materials that must be submitted at each stage of the program, describing each case.

Application and Registration Stage

1. For Proposers conducting the R&D stage at their laboratory facilities:
 - Identification Document: Brazil – RG, CNH, or Work Card;
 - Document proving affiliation with the institution or laboratory to which they belong (enrollment certificate or proof of employment).
2. For Proposers conducting the R&D stage at Escalab's facilities:
 - Identification Document (RG, CNH, or Work Card).
 - Handwritten declaration stating the intention to conduct tests at Escalab's facilities and accepting the conditions imposed for such tests as outlined in these regulations.
 - Proof of completion or ongoing enrollment in higher education. Acceptable proofs include enrollment certificates, diplomas, course completion declarations, CRQ, CREA, or equivalent.

All these documents must be attached to the registration form under the responsibility of the Proposer.

Interview Stage

- Presentation video template containing the content to be presented during the interview.
- Should be sent to the email mininglab@nexaresources.com by the deadline to be informed by the Organizing Team.

Hiring Stage

- 1.** For Proposers conducting the R&D stage at their laboratory facilities:
 - Purchase order detailing the inputs, equipment, or services necessary for project execution, including:
 - Description of the order detailing all technical aspects and specifications of the required item.
 - Budget, with 3 (three) updated quotes recommended.
 - Descriptive report of the objective of the order justifying its necessity.
 - Document with shipping details to the institution or laboratory to which they belong. Necessary details for shipping include: CNPJ, ZIP code, and complete address of the institution.
 - Should be sent to the email mininglab@nexaresources.com by the deadline to be informed by the Organizing Team.

- 2.** For Proposers conducting the R&D stage at Escalab's laboratory facilities:
 - Purchase order detailing the inputs, equipment, or services necessary for project execution, including:
 - Description of the order detailing all technical aspects and specifications of the required item.
 - Budget, with 3 (three) updated quotes recommended.
 - Descriptive report of the objective of the order justifying its necessity.
 - Work plan containing planned experiments, schedules, equipment, and other inputs necessary for the R&D stage.
 - Should be sent to the email mininglab@nexaresources.com by the deadline to be informed by the Organizing Team.

All documents required at this stage will have a template sent to the Proposer during the program. The sending will be via email, respecting the choice made by each proponent during registration regarding the infrastructure to be used during the R&D stage.

R&D Stage

- Documents requested by the Organizing Team regarding the ongoing Project under penalty of elimination if not presented.
- Final report of the results obtained in the Project.
- These documents must be sent to the email mininglab@nexaresources.com by the deadline to be informed by the Organizing Team.

EVTE Stage

- Result of the EVTE conducted with the support of the Organizing Team.
- Should be sent to the email mininglab@nexaresources.com by the deadline to be informed by the Organizing Team.

Demoday Stage

- Result of the EVTE conducted with the support of the Organizing Team.
- Should be sent to the email mininglab@nexaresources.com by the deadline to be informed by the Organizing Team.



Failure to submit the documents or the submission of documents that do not comply with the requested verifications will result in the elimination of the Proposer from the Program, with the submission of documents being the sole responsibility of the Proposer.

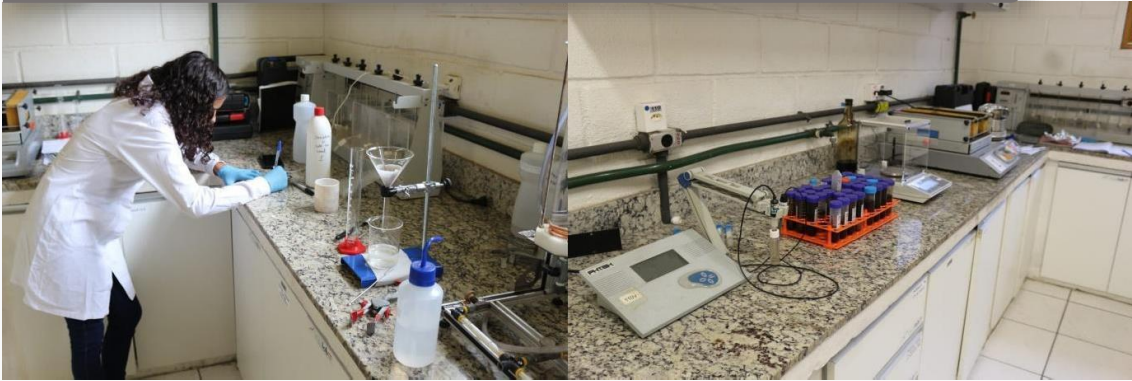
II. Escalab Infrastructure

- Magnetic stirrer
- Mechanical stirrer
- Autoclave 200mL with pressure gauge
- Autoclave 200mL
- Large autoclave 1500 mL
- Small autoclave 100 mL
- Balance
- Analytical balance
- Two-way flask
- Round-bottom flask 1L
- Volumetric flask 10 mL
- Volumetric flask 100 mL
- Volumetric flask 1000 mL
- Volumetric flask 25 mL
- Volumetric flask 250 mL
- Volumetric flask 50 mL
- Volumetric flask 500 mL
- Magnetic bars 15 mm
- Magnetic bars 6 mm
- Thick glass rod
- Thin glass rod
- Beaker 10 mL
- Beaker 100 mL
- Beaker 1000 mL
- Beaker 250 mL
- Beaker 500 mL
- Beaker 250mL (tall form)
- Beaker 2000mL
- Beaker 600 mL
- Vacuum pump
- Burette 10 mL
- Burette 25 mL
- Cooler box (17 L)
- Corning heating and stirring plate
- CO2 cylinder
- Glass Imhoff Cone Graduated 1000ml
- Condenser
- Ball condenser
- Desiccator
- H Electrode for pH meter
- Erlenmeyer flask 100 mL
- Erlenmeyer flask 250 mL
- Erlenmeyer flask 50 mL
- Erlenmeyer flask 500 mL
- Erlenmeyer flask 2000 mL
- urette washing brush
- Spatula
- Large oven
- Small oven
- Falcon tube 15 mL without label
- Funnel 100 mm
- Funnel 50 mm
- Porcelain Buchner funnel 115mm 460ml
- Porcelain Buchner funnel 150mm 950ml
- Porcelain Buchner funnel 185mm 1700ml
- Porcelain Buchner funnel 90mm 230ml
- Plastic funnel
- Pear-shaped separation funnel 60 mL
- Pear-shaped separation funnel 500 mL
- Large clamps ▪ Small clamps
- Mortar and pestle
- Naval propeller (3-blade Propulsor) \varnothing 6x28cm
- Centrifuge propeller (Dissolver) \varnothing 5x28cm
- Anchor propeller \varnothing 4.5x35cm R1330
- Lab coats
- Jar Test
- Connecting joint
- Kjeldahl flask 1000 mL
- Kjeldahl flask 500 mL
- Nitrile gloves (size G)
- Nitrile gloves (size M)
- Nitrile gloves (size P)

Escalab Infrastructure

- Chemical mask
- Chemical mask
- pH meter (pH test strips)
- pH meter (portable)
- Stirring motor
- Aluminum crucible
- Safety glasses
- Quantitative filter paper
- Medium sieve
- Small sieve
- Bulb pipette 25 mL
- pH meter 110 V
- Glass Gay-Lussac Specific Gravity Bottle 10ml
- Tongs
- Pasteur pipette
- Graduated pipette 1 mL
- Graduated pipette 10 mL
- Graduated pipette 2 mL
- Graduated pipette 25 mL
- Graduated pipette 5 mL
- Volumetric pipette 1 mL
- Volumetric pipette 10 mL
- Volumetric pipette 2 mL
- Volumetric pipette 25 mL
- Volumetric pipette 5 mL
- Volumetric pipette 50 mL
- Pipette filler 10 mL
- Pipette filler 25 mL
- Wash bottles 500 mL
- Glass Petri dish (100x20 MM)
- Glass Petri dish (50 X 10 MM)
- Plastic film
- Graduated cylinder 10 mL
- Graduated cylinder 100 mL
- Graduated cylinder 1000 mL
- Graduated cylinder 25 mL
- Graduated cylinder 250 mL
- Graduated cylinder 50 mL
- Graduated cylinder 50 mL
- Graduated cylinder 500 mL
- Graduated cylinder 2000 mL
- Rubber stopper for general sealing (NR 09 / TOP DIAM. 30 BOTTOM DIAM. 25 LENGTH 30)
- Rubber stopper for general sealing (NR 11 / TOP DIAM. 36 BOTTOM DIAM. 30 LENGTH 39)
- Hermetic Zip Lock Bag (10x16 cm / 14 x 20 cm and 35 x 45 cm)
- Support with rod
- Round ring stand
- Test tube rack
- Burette stand
- Falcon tube stand
- Chemical thermometer External Scale -10+360°C Div. 1°C –
- Chemical thermometer External Scale +10+300°C Div. 1°C –
- Chemical thermometer Internal Scale Red Liquid -10+150°C
- Chemical thermometer Internal Scale Red Liquid +10+300°C
- Digital Probe Thermometer Scale -50 + 300°C
- Test tubes
- Falcon tube type centrifuge tube 15ml
- Falcon tube type centrifuge tube 50ml
- Watch glass (100 MM)
- Watch glass (250 MM)
- Oswald Viscosimeter
- Vortex mixer
- Vial 20 mL

Escalab Infrastructure: laboratory photos



III. Non-Disclosure Agreement (NDA) Model

The standard NDA model to be signed by approved participants for the Conceptual R&D stage can be found [here](#).