



MINING LAB 2nd EDITION - PROGRAM RULES

Nexa Resources S.A. ("Nexa") believes in the value of partnership and teamwork in order to develop technological innovation for the metals and mining sectors.

Solidity, ethics, respect, entrepreneurship and union are the core values that guide our work, which have been registered in a document called 'DNA Votorantim'.

In light of this, Nexa actively seeks groundbreaking projects in order to complement internal efforts in key areas of the metals and mining exploration activities.

The purpose of this document is to define the terms, conditions for entry and operation of the program.

THE PROGRAM

- 1.** The Mining Lab program was conceived by Nexa to support entrepreneurs and other professionals in the process of developing technological innovation for the metals and mining sector.
 - a. For the purpose of this document, the Mining Lab team represents the employees, the members of the evaluation panel and others involved in the program.
- 2.** The program is not determined by any kind of lottery, not being 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.
- 3.** The main goal of the 2nd edition of the Mining Lab program is to identify, acknowledge and connect innovative projects in Brazil, Peru, Chile, Canada and the United States, particularly in the fields of **Mineral Concentration, Logistics, Industrial Automation, Circular Economy, the Internet of Things and IT**, which can be used in the metals and mining activities of the Nexa units in Brazil and Peru.



a. **Mineral Concentration.** This particular area aims to achieve solutions for increasing the levels of zinc and silver ore, for instance, or reducing the amount of gangue ore within underground mines. In addition, we seek efficiency and safety in Nexa's zinc, lead, copper and silver ore concentration operations, mainly in Brazil and Peru.

b. **Logistics.** Nexa seeks projects that are capable of providing solutions and/or optimizing internal and external transportation processes, reducing costs and eliminating bureaucracy in document issuance. Additionally, they should take safety and delivery time into consideration. Nexa's main projects are:

(i) **Sharing Economy Freight Platforms:** finding alternatives to procure road, maritime and/or rail transportation that favors new business opportunities, by mapping and locating drivers and carriers who are available to offer 'sharing economy' services.

(ii) **Big Data for Logistics:** project related to the analysis of eventual risks contained in the logistics plan, obtained with a logical tool, in order to determine the improvements in performance and risk mitigation that should be considered.

(iii) **Blockchain for Logistics:** projects that focus on the optimization of payment, credit and document flow processes.

c. **Industrial automation.** For this scope, Nexa seeks ingenious solutions and projects, capable of optimizing processes, in addition to achieve more accurate real-time measurements and robotization of activities in the mining plants. All this while focusing on safety, sustainability and profitability. Nexa's main projects are:

(i) **Remote monitoring of operational data on Mine Assets:** solutions and development of an integrated system for remote monitoring of operational data of assets within the exploration plants controlled by Nexa.

(ii) **Transport cycle optimization from the dispatch system:** projects developing solutions for integrated transport cycle optimization systems through the mine dispatch system.

(iii) **Robotization of underground mines:** projects presenting solutions to ensure increased safety, efficiency and sustainability to the mining process.

d. **Circular Economy.** This specific field intends to bring about projects, solutions or products aiming to create process routes and waste solutions for the mining and metallurgy plants in which Zinc is extracted. We also seek solutions for the treatment of mining and metallurgical effluents in a way that increases water recirculation in plants.

e. **Internet of Things and Information Technology.** The projects targeted in this area should be focused on the development of solutions using information technology to eliminate obstacles perceived in the scope of the mineral exploration and metallurgy process developed by Nexa in its plants. Among them, we highlight:

(i) **Volumetry and quality measurement for optimization of production processes (metallurgy and mining):** We select smelter (zinc metallurgy) to base the application of this solution (optimize the capacity from intelligent process controls). The solution is to obtain information on the physical and chemical quality of raw materials allowing intelligent process control and thus optimize stability and productivity.. In the future, this solution can be applied to other parts of the production process, such as the analysis of the purity of the waste. One of the alternatives that we are currently visualizing is the implantation of sensors using IOT technology and mathematical calculations, to obtain on-line information of volumes and product quality.

(ii) **Maximizing the adherence to the predictability of the LME:** a prognostic of the LME trend view. Searching current market information and how the LME is calculated worldwide. Discovering the factors and all the possibilities and variables, including using the current Research Centers to build a complete and consolidated solution into a single database and thus generating forecasts to support the board in decision making. The Model can be based on big data, machine learning and / or development of other technological solutions based on models and mathematical algorithms with applications in finance, financial risk assessment and market analysis.



(iii) **Mineral Resources and Reserves Management System:** Mineral Resources and Reserves management system of operations and mining projects through a platform and / or app that contemplates the flow of all necessary information and guarantees its traceability for the Resources and Reserves declaration to the NYSE and TSX stock exchanges. It is focused information transparency, process auditing, information disclosure, information unification, production data monitoring and mine KPIs in operation.

3.1. It is important to clarify that the participants considered eligible for the purposes of this program are:

- a. Duly constituted companies, registered with the competent authorities in accordance to and in compliance with the Law and constitutive acts of their countries of residence.
- b. Technical staff hired by the participant must be comprised of at least 2 (two) professionals allocated exclusively for project management and development.

3.2. Further criteria for disqualification and exclusion of the program are as follows, even if applicants fulfill the requirements mentioned in clause 3.1 above:

- a. Participation of an individual or legal entity that directly or indirectly operates in the zinc mining industry in the applicant's board of directors, shareholders and/or administrators.
- b. Confirmation that the project and/or startup has in its board of directors, shareholders and/or administrators, an individual or legal entity that has been directly or indirectly evaluated by direct relatives that are part of any of the evaluation panels of this program.
- c. Existence of a commercial agreement or relationship enter by the shareholders of the entity of any other nature, contractual or otherwise, current and related to the project presented in the program with a market player in Brazil and/or in the world that can be considered a competitor of Nexa.



d. Having entered into any type of partnership or collaboration agreement with a market player in Brazil and/or the world that may be considered a competitor of Nexa.

e. Participation of public servants, governmental entities or politically exposed persons in the applicant's board of directors, shareholders and/or administrators, except professors, University's researchers or research institutions.

f. The applicant company or any of its partners has been convicted, found guilty or charged with any crime, including acts involving fraud, misappropriation, corruption or bribery, in any jurisdiction or country.

g. Participation or further participation in other programs with conflicting schedules. If Nexa understands that the timetable of another project may be detrimental to the development of the current project, it may, in its sole discretion, disqualify the participant in the course of the process.

h. Non-acceptance of the division of intellectual property being of at least 50% (fifty percent) when there is co-development and/or financial incentive by Nexa and that justifies the division mentioned herein.

Non-compliance with the procedures, instructions and any terms of the project.

i. Violation, by any means, of the intellectual or industrial property of third parties, such as trademarks, patents, utility models or computer software.

4. Participants who display images and texts with erotic, inappropriate content, Inconsistent records (false data), improper use of images of public figures or third parties, use of inappropriate words and terms or in violation of any policies of Nexa or third parties will automatically be disqualified.

5. The application period for the program will begin at 12 PM (Brasilia time), January 15, 2018, and end at 11:59 PM (Brasilia time) on March 31, 2018. It may be extended at the sole discretion of Nexa through an advertisement published on the website (<http://mininglab.nexaresources.com>).



BENEFITS AND GRANTS

6. The total benefits of the program are estimated at US\$ 2,400,000.00 (two million and four hundred thousand US dollars), which will be divided among the selected participants of the program, proportionally or not, under the exclusive management of Nexa, in charge of providing the benefits according to the demand of each project and the budget presented by the participants. The benefits are individual and non-transferable, and Nexa may require, at any time, presentation of proof of such investments, and the amount may not be converted, in whole or in part, into cash for the participants' free use.

7. The specific benefits of this program are:

- a. Potential investment for the development of the project.
- b. *Equity free.*
- c. Opportunity to become a supplier to Nexa and, potentially, of other company of the Votorantim Group.
- d. Promotion of partnerships for the development of new technologies and solutions with Nexa.
- e. Perform tests in an industrial environment with Nexa technical support.
- f. Access to startup's development methodology, including but not limited to training, technical visits and professional management.
- g. Coaching and mentoring by worldwide renowned experts of the mining sector and in the entrepreneurship and innovation ecosystem.



- h. Option to establish partnerships to search for funding, acquiring or distribution of the products and services of the projects developed by the startups that were selected during the program.
- i. For the on-site Boot Camp event, to be held in Brazil, in the city of São Paulo, State of São Paulo, and described below, Nexa will provide airfare and lodging for 1 (one) member of entity which project was selected.

8. 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 in the event that Nexa has collected tribute on their behalf.

9. 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.

THE PROCESS

10. In order to achieve the proposed goals, development activities will be carried out, as well as group activities of diffusion and interaction between the corporate entities and Nexa.

11. The deadline for completing the project testing and validation steps is 1 (one) year after the the signature of the contract. The specific period and dates of the selection step are available for consultation on the website (<http://mininglab.nexaresources.com>).

12. Approval on Demo Day does not necessarily imply the formalization of a contract, which may be signed between the participant and **Nexa** and/or any affiliates for commercial agreements between them and that will strictly follow the present rules, at the discretion of **Nexa**.

13. The process will consist of six steps: (i) Application/registration; (ii) selection; (iii) on-line interviews; (iv) Boot Camp on-line; (v) Boot Camp on-site (i.e. immersion) and (vi) Demo Day.



14. The selection process will take place in an eliminatory fashion at all steps.

15. At each step of the program, Nexa will determine which documents must be provide bythe participants, according to the annexes contained in present rules. In the event of non-submission of the required documents by the deadline, the participant will be disqualified from the program.

16. Application and registration. The application process starts with completing and submitting (i) the form available on the program website (<http://mininglab.nexaresources.com>); (ii) information related to your project in compliance with the application platform guidelines on the program site; and (iii) the acceptance of the confidentiality agreement and the program rules available on the program website.

16.1 Registration is free and will take place exclusively electronically via the program's website (<http://mininglab.nexaresources.com>) until 11:59 PM (Brasília time) on March 31, 2018. For the selection period, or at any time or stage provided for in this regulation, the participant may be contacted at any time to explain the project and must respond to the demands within 3 (three) business days, observing Brasilia time, otherwise they will get disqualified.

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

16.3 The registration will be confirmed by Nexa, via email, within 3 (three) business days after the entry. In the event that the confirmation is not received within the deadline abovementioned, the participant should email Nexa (mininglab@nexaresources.com) immediately.

16.4 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.

17. After the applications are completed, the selection of innovative projects and businesses will proceed accordingly to the propositions of each pre-established area and also, at the sole discretion of Nexa, having synergy with the business and showing potential to solve the challenges faced in the



chosen areas of interest: Logistics, Circular Economy, Internet of Things, Mineral Concentration and Industrial Automation.

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

17.2 The selected participants will be provided with both business intelligence and infrastructure support, and may be also eligible for financial investment if their projects are able to be implemented, customized and used by Nexa within the scope of its production process.

18. On-line Interviews. The startups with projects that are most suited for the challenges will be selected for an on-line interview with the technical staff at Nexa. The goal is to see the details and have an in-depth assessment of the projects.

a. 36 (thirty six) projects will be selected in order to move to the On-line Camp Boot mentioned in Section 19 below.

19. On-line Boot Camp. Up to 36 (thirty-six) projects will be selected to participate in the on-line Boot Camp. This step will happen via a VLE platform, and each project will have its own login and password.

a. This step aims to align the pre-selected projects and refine the proposed solution. Participants will receive orientation on how to proceed in this step through videos and written materials. Participants will be required to deliver materials for evaluation by the Nexa panel.

b. 24 (twenty four) projects will be selected in order to move to the On-site Camp Boot (immersion) mentioned in Section 20 below.

20. On-site Boot Camp (immersion). Up to 24 (twenty-four) projects will be selected for the on-site Boot Camp, which will take place in Brazil, in the city of São Paulo, State of São Paulo, on the dates specified on the site (<http://mininglab.nexaresources.com>).



a. In this step, the final alignment of the projects will be carried out with Nexa's technical and management mentors, to devise the value statement for each project, which will be presented to Nexa executives during the Demo Day (as described below).

b. The documentation listed in **Annex 20.B** of the present Rules , and its original versions must be validated, subject to exclusion from the program in case the documents are not delivered.

21. Demo Day. The Demo Day will take place on the last day of the On-site Boot Camp (i.e. immersion), in which the projects should present their proposals to the program's evaluation panel. Nexa will not be responsible for the technical criteria adopted by the evaluating panel of the program. The panel is composed of independent and reputable judges, whose decisions will be sovereign and unappealable.

a. The projects will be evaluated and scored by the panel, being selected exclusively in compliance with Nexa's purposes.

22. A ceremony will be held, at the end of the Demo day, awarding the selected projects.

23. Evaluation criteria. The program relies on a team of experts with vast knowledge in the ecosystem of entrepreneurship, innovation and new business models, as well as the expertise in the technical areas involving mining and metallurgy. The classification of the projects will be based on the following criteria:

Criterion	Goal
Team	Evaluate the team's ability to develop the solution and turn it into a business.
	Evaluate the Vision of the future for the business and proposed strategies.

Technology	Evaluate the effectiveness of the solution's operation, its level of maturity and the feasibility of its scale production.
	Assess whether it is possible to protect developed or developing technologies.
	Evaluate the possibility of generating new solutions based on the technology used and the level of contribution of this technology to the mining chain.
Solution	Evaluate the level of product innovation and the strength of the competition in that market.
	Evaluate the manner in which the solution (product/service) meets Nexa's demands.
	Evaluate if the business model is interesting and allows to build a scalable and competitive business.
Legal and Financial Viability (qualitatively)	Check the necessary investment and legal viability (compliance) for the development of the solution
	Evaluate the impact of the solution on cash cost.
Strategic alignment (qualitatively)	Assess the project's ability to strengthen the image of Nexa
	Evaluate if the proposal is aligned with Nexa's strategy: <ul style="list-style-type: none"> - Operational Excellence; - Mining growth; - Market development and maintaining.

a. **Assistance for the on-site Boot Camp participants (immersion):** For participants attending the 1-week on-site Boot Camp step, the following will be granted: (i) lodging required during the immersion period for 1 (one) member of each project; (ii) round-trip airline tickets for the



period of immersion, from the country or place of origin of one (1) member of each project; and (iii) breakfast at the hotel during the immersion period for 1 (one) member of each project, coffee breaks and luncheon at events held by Nexa.

b. Except as provided above, meals, ground transportation in São Paulo and eventual insurance costs will be exclusively under the participant's responsibility. In this sense, Nexa will not be liable for any occurrence or incident involving the participants during the entire period covered by the present Rules, including the dates of the on-site Boot Camp.

c. **Program schedule.** The schedule with the main milestones of the program is available for consultation and detailed on the website (<http://mininglab.nexaresources.com>).

INFORMATION CONFIDENTIALITY

24. The parties involved must consider confidential all the information regarding the projects that have been disclosed to them, obliging them not to disclose said information to third parties without their knowledge and consent, under penalty of civil and criminal liabilities.

25. The terms and conditions for the development of the selected projects and the promotion of the research will be confidential and subject to timely agreements with the selected participants.

JURISDICTION AND SETTLEMENT OF DISPUTES

26. This program, its Rules and Confidentiality Agreement, as well as any and all documents executed under the program, are governed and interpreted by the laws of the Federative Republic of Brazil. The Central Forum of the District of São Paulo is hereby elected as the only competent forum to settle any controversy arising from the interpretation or implementation of these Rules, including any questions concerning the relations established between Nexa, the participants and third parties, due to this instrument.

27. On the partnership agreement with Nexa. Following the Demo Day, alignment meetings will be held between Nexa and the participants on a case-by-case basis in order to identify and draw up



the most appropriate partnership agreement for both parties, establishing the commercial and licensing conditions of each of the projects, which will strictly follow the terms of these Rules. If the parties do not reach an agreement, there is no obligation to sign a partnership contract.

OBLIGATIONS AND RESPONSIBILITIES

28. The obligations of Nexa and of the participants are to:

a. 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 participant.

b. Participate in the activities planned for each step of the program, as well as providing all the information and documents required for each step.

c. Actively participate in program events and initiatives.

d. Allow Nexa to use the brand, the name and the image of the participants, as well as its partners, employees and representatives, for promotional purposes in internal and external communication media, free of charge, without limitation of time or territory. The participant shall ensure and submit to Nexa the proper terms of consent for the use of their image, which are in their exclusive responsibility and competence.

e. Grant an exclusive, non-revocable, global, indefinite license to Nexa for all of the participant's image rights, as well as its partners, employees and representatives, for Nexa to disclose and display such images freely with any third party and for any purpose relating to the program, which may be fixed or printed in physical, electronic and/or any media capable of recording and reading electronic information, including, but not limited to, any type of media, whether printed or not, in addition to internet, intranets, other public or private data networks, mobile devices such as cell phones and handheld devices, computers and data processing devices, physical media such as CDs, DVDs, memory cards, hard drives, photos, posters, billboards, newspapers, magazines, exhibitions, or any other media, as well as automatically authorizing Nexa to use its physical image,



name and/or voice, including photos, posters, films, as well as any type of media and advertisement for the promotion of this program, for an indefinite period.

29. 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 participants.

TERMINATION OF THE PROGRAM

30. The program will be considered terminated for any participant in the following cases: (i) end of the duration of the program; (ii) if there is a breach of any clause of the present Rules or of the Confidentiality Agreement; (iii) in case of insolvency, bankruptcy or receivership of the participant; (iv) if the intellectual property developed within the scope of the project is granted to a third party, even temporarily; (v) by Nexa's will.

30.1. 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 programs.

30.2. Fraud: Participants who commit any type of fraud will be summarily excluded and will still be subject to criminal and civil liability.

NON-COMPETE CLAUSE

31. Participants and approved projects that sign a partnership agreement with Nexa are subject to a possible non-compete clause that will be analyzed on a case-by-case basis, depending on the reach and scope of the project.

AUDITING

32. Right to audit. Nexa shall have the right to audit or examine, in order 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 use 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, in regards to such audit or examination, shall constitute a violation of this instrument, justifying the immediate exclusion of the participant from the program.

GENERAL PROVISIONS AND ANNEXES

33. 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.

34. Any and 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.

35. Any changes to these Rules will be posted on the program's electronic address (<http://mininglab.nexaresources.com>).

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

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

38. 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 in order to prevent or substantially modify its operation as originally planned.



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

40. 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.

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ANNEX 20.B – DOCUMENTS REQUIRED BY NEXA

Below is the list of documents that must be presented by the startup companies participating - both Brazilian and foreign¹:

1. Company's bylaws or incorporation act n, according to local law.
2. Shareholders Agreement or equivalent proving the administration's powers and the startup representatives.
3. Shareholders registry.
4. Document evidencing the tax good standing of the company in the country of residence.
5. Debt Clearance Certificate issued by the Internal Revenue Service or other competent authority of the jurisdiction of residence.
6. Bank information document for payment procedures.
7. Valid passport for the representative coming to Brazil, for foreign startup companies or with a foreign representative.
8. Passport picture, in color.
9. Entry Visa issued by Brazilian Federal Police.
10. Criminal records check for the partners and administrators of the startup.

¹ Documents must be handed until the first day of the on-site Boot Camp (immersion), in the form of an Apostille, according to the Hague Convention, if the startup is constituted outside of Brazil.