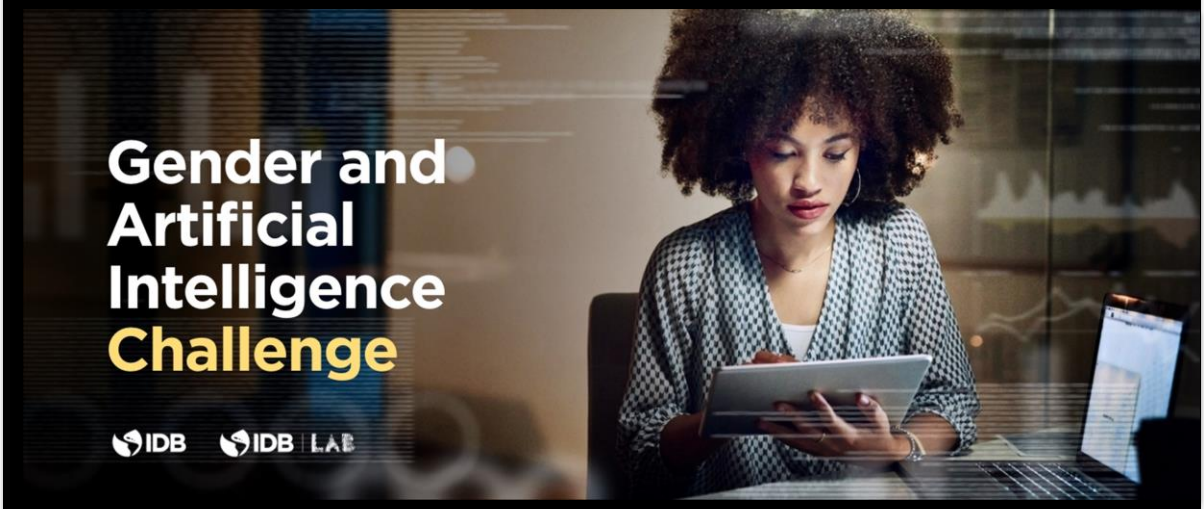
GUIDELINES



Artificial Intelligence as a tool to help reduce bias and discrimination based on sex and gender

Content

1 Presentation

The Inter-American Development Bank (IDB), through its innovation laboratory IDB Lab, in the context of the fAIr LAC initiative, has launched an open innovation call to **identify, pilot, and accelerate technological solutions based on artificial intelligence (AI) that contribute, through the concept of algorithmic justice, to reduce bias and discrimination based on sex and gender.**[1]

We are seeking solutions that help incorporate women into the economy and society, especially those that are generating a positive impact in low-income groups and critically vulnerable communities.

Along with climate change, gender equality and diversity are cross-cutting pillars in IDB Lab's work, and are addressed through each of the priority vertical areas, in order to support the consolidation of the region's innovation and entrepreneurship ecosystems. This is fully in line with the IDB Group's Vision 2025 to promote an inclusive digital economy that contributes positively to regional socio-economic development.

Context

Submission of applications	Announcement of selected applications
From July 7 to August 31, 2022	November 2022

Access to the online platform

>Start your application here<

Timeline

Thematic areas

1. Health and social welfare
2. Education, talent, and employment
3. Financial inclusion
4. Other IDB Lab's verticals [2]

[1]According to the WHO, "sex" refers to biological and physiological features defining men and women, whereas "gender" refers to the roles, behavior, activities, and attributes socially constructed that a specific culture considers appropriate for men and women.

[2] Other IDB Lab's vertical: agriculture and natural capital; essential infrastructure services; and climate change as a transversal issue.

Awards

Category A - IDB Lab financing opportunity

IDB/IDB Lab Funding (under the terms and conditions established set forth in section 6), and participation in special events and activities of IDB Lab and IDB Group regional networks.

Category B - Honorable mention

Honorable mention and participation in special events and activities organized by the IDB Lab and the regional IDB Group's networks.

Geographical scope

Category A

26 IDB borrowing countries in Latin America and the Caribbean. You can apply for the Challenge if your organization is legally registered in one of these 26 countries where the project will be implemented.

If your organization is legally registered in one of the 48 IDB member countries, other than the 26 target countries where the project will be implemented, you can apply jointly with an organization registered and located in one of the 26 target countries where the project will be implemented.

Category B

Organizations legally incorporated in one of the 22 IDB non-borrowing countries that have implemented AI solutions aligned with the objectives of this Challenge but have no presence or alliances in one of the 26 IDB borrowing countries.

2 Context

Artificial Intelligence (AI)[3] has experienced accelerated advances in recent years. This technology allows to face complex challenges and the development of automated decisions in various areas of our lives. It has the potential to tackle the solution of social and environmental problems that affect the entire world, especially in the developing countries, thus being able to create fairer and more equitable economies. However, this

[3] All these definitions are detailed below, in the Glossary of this Challenge.

development also poses risks that can perpetuate or increase bias, stereotypes, and existing discrimination in the society, with social, economic, legal, and ethical implications. It is necessary to adjust the use of AI solutions and algorithms to avoid the exclusion of part of the population, promote diversity in the workforce of the technological ecosystem and, thus democratizing resources for social development.

Throughout history, our societies have reproduced an androcentric perspective that in many cases has made women invisible and marginalized within society. Article 27 of the Universal Declaration of Human Rights [ref.] establishes that everyone has the right to participate in scientific advancement and its benefits [ref.]. Despite this, women are part of the group that does not have access to fundamental standards of rights and participation in scientific progress, neither as users nor as professionals in the labor market.

For example, there is a labor participation gap in science, technology, engineering, and mathematics (STEM) that marks an underrepresentation of women in these fields. Women's participation in the research sector is less than 30%, according to data from United Nations Institute for Statistics (UIS) in the private, public, and academic sectors [ref.]. The low percentage of women working in the AI field determines a sector lacking gender perspective and diversity. The European Institute for Gender Equality (EIGE), indicates that in the European Union and the United Kingdom, only 16% of those working in AI are women, moreover women with more than 10 years of experience represent only 12% of AI professionals [ref]. Therefore, AI projects could yield erroneous results due to biased data, algorithms, or equipment responsible for data management and technology implementation [ref.]. The lack of equality and inclusion, and low diversity regarding sex, gender, ethnicity, age, and socio-economic status, among other variables, not only risks creating an unequal distribution of workforce power but also reinforces the existing inequalities generated by algorithmic biases. AI flaws are due to highly homogeneous organizations that tend to have a lower margin for innovation and alterations [ref.]. This situation reduces the scope of the people and processes for whom these systems are developed, a fact that contributes to unfair results and negative impact, especially affecting vulnerable populations and minority groups, underrepresented in training data sets or in the lifecycle of AI systems [ref.].

There is an urgent need for more women to leading STEM teams and for incorporating sex and gender perspective in AI research, design and development. According to the report prepared by the Leverhulme Center for the Future of Intelligence, there are four major challenges regarding gender equality in recent AI development to ensure that data and AI work for all people and society: 1) bridging gender theory and AI practice; 2) developing legal and policy environments for AI; 3) eliminating biased datasets; and 4) promoting diversity in the AI workforce [ref.].

This change represents a challenge regarding the human capital needed to foster innovation and social diversity. The economic inclusion of more women in labor markets Latin America and Caribbean is a human right that can bring significant benefits being able to boost productivity and innovation, social welfare, inclusive growth, and sustainable development. According to the report published by the International Monetary Fund [ref.], the economic production in Latin America and the Caribbean would be 22% higher if the gender labor participation gap was bridged. And it is estimated that, in certain regions, per capita GDP losses attributable to gender disparities in the labor market are as high as 27% [ref.].

Based on the above, it is fundamental to mitigate historical inequalities in order to build up an inclusive future, where women participate in this new technological development. According to Londa Schiebinger director of the *Gendered Innovations* project [ref.] at Stanford University, with the U.S. National Science Foundation, and the European Commission, three major approaches must be considered:

1) increasing women's participation in STEM through affirmative actions and concrete measures

2) promoting gender equality in organizations and their processes, coordination, laws, protocols, and selection of personnel, together with institutional measures guaranteeing effective inclusion in the work structure. This implies that the industry itself must correct its system, focusing on policies, programs, and initiatives; and

3) integrate the sex, gender, and intersectional analysis into research, by reviewing production procedures, process design and development, and the methodology in work areas in order to attain an inclusive implementation [ref.]. Gender equality requires multi-level collaboration between governments, civil community, academic institutions, technical areas, social corporations, and the private sector, aimed at providing a knowledge platform that generates a diverse and sustainable development in AI technologies, whose impulse must be supported in a permanent manner.

There is a global call to develop public policies and actions to achieve gender equality in the labor environment. However, COVID-19 has proved an obstacle to this process, thus worsening the situation of inequality in economic and social terms, especially among the vulnerable population. According to the IDB's COVID-19 Labor Observatory, the pandemic had a serious impact on women's employment between February and September 2020, with a decrease of 17.7% compared to 13.1% for men [ref.].

In this regard, the IDB Group's Vision 2025 seeks to respond to the challenges in the Americas and set a path to come out of the crisis with more sustainable growth and resilience. For such a development, it is essential to integrate the sex and gender

perspective in all initiatives to determine a change in the future system, especially regarding those technologies for the creation of quality jobs, education, financial inclusion, value chains, business development, physical and mental health services, and development of digital and personal skills. The objective is to enhance all actions for post-pandemic economic and social recovery with cross-cutting measures in gender and diversity, mainly in the technological sector.

It is critical for economic development and global recovery ti identify ethical, diverse, inclusive, and transparent AI systems, with human centered technology that can be controlled by citizens. AI has transformational potential in our society. Therefore, it is necessary to design a technology that promotes mechanisms of responsibility and *algorithmic justice,* policies that advocate for control and caution from companies, governments, academia, and the technological field involved in the AI ecosystem with respect to bias risks and discrimination. The recommendations of the 2019 OECD Council on AI for public policies and strategies around the world, note that fundamental actions for inclusive growth, sustainable development, and well-being include: (i) the promotion of human-centered values and equity; (ii) transparency and explainability; (iii) robustness, security, and data protection of systems; (iv) responsible development; (v) accountability; (vi) resilience; and (vii) mitigation of harmful biases [ref.].

AI has to provide bias-free solutions to society, ensuring responsible use in the population. Therefore, current initiatives and projects are aimed on seeking strategies and adequate training to identify biases and develop safe systems. A bias is defined as a prejudice for or against one thing, person, or group compared to another, usually unfairly or negatively. Unconscious bias, also known as implicit bias, is defined as attitudes and stereotypes that influence judgment, decision-making, and behavior in ways that are outside conscious knowledge and/or control [ref]. There are multiple ways to classify biases in computer systems. According to Friedman, B.; Nissenbaum, H. [ref.] they can be identified as: pre-existing, technical, and emerging. The pre-existing bias has its origin in the values, practices, and attitudes of institutions, so that addressing it requires a cultural change and a revision in the structures of participation in technology development. Technical bias arises from technical constraints or development considerations, which can concern data, the statistical process, or technological development itself. Finally, the emerging bias is related to the context of use in which it is applied and needs adaptation to society and the environment in order to avoid failures in its impact.

From the sex and gender perspective, one of the risks of AI risks is that it can lead to social discrimination and a significant loss of confidence on part of the population, if biases in the technological field are not identified or mitigated. An AI-based system can reproduce sexist or racist results [ref.]. Discrimination occurs when an algorithm, or the historical training data from which it learns, contains errors that lead to treating individuals or groups

differently from the rest of the population without acceptable justification. The impact of systematic replication and perpetuation of biases is amplified when systems that integrate them are used, thus negatively affecting underrepresented communities. Therefore, building a common understanding of AI to mitigate bias and improve social services is one of the most important challenges.

In the area of health, ignoring sex and gender can lead to reduced access to health care, delayed, inadequate treatment, and an overall worsening of public health. Sex and gender have an impact on basic research, preclinical studies, and public health. This occurs, for example, when a machine designed to detect skin cancers has been set up to do so only on fair skins and is unable to detect cancers on darker skins with the same reliability [ref.]. Recent studies from MIT University and Microsoft Research point out that machine learning algorithms can discriminate by race and gender, a fact that poses challenges requiring perspectives from intersectionality to handle models with human biases [ref.].

In the workplace, discrimination in AI systems can lead to worsening the situation of women in STEM, as being excluded from job opportunities. For instance, there are cases where automatic recruitment designs, when reviewing the resumes of applicants to automate the search for the best talents, showed that male candidates were preferable, penalizing resumes that included the word "female" [ref.]. Similarly, in the financial field, algorithm systems can flag predetermined gender preferences in credit grantors, limiting a customer's creditworthiness.

Biases in AI can be created by phenomena such as past discrimination, class imbalance, information leakage, temporary changes, and over-adjustment, among other impacts that affect decision-making in a public policy, system, or application with a social scope [ref.]. Working in the different phases of AI systems with an ethical, socio-economic, and cultural approach that integrates responsible practices of design, development, and use of technology with an inclusive gender and diversity perspective will contribute to the development of reliable and representative AI systems of the population. This means, developments that propose a revision in criteria, research approach, practices, questions, hypotheses, methods, and team formation, data explainability, training, and process applicability.

AI and Social Impact

Scientific evidence shows that AI has enormous potential to generate social impact to achieve global goals, such as the Sustainable Development Goals (SDGs). Therefore, a strategic approach is to promote AI mechanisms that benefit access to education, work, social benefits, public health implications and services to promote economic growth and favor wealth distribution. The potential of AI is broad, with a range of measurable

applications in global productivity, equality, and inclusion, and environmental application in the short and long term [ref.]. Establishing risk prevention and mitigation measures in those algorithms that may pose a threat to individuals or social groups, requires initiatives that enhance changes and improve the social applicability of AI systems.

D'Ignazio, C., F. Klein, L [ref.] argue that it is necessary to implement a new way of thinking about AI, data science, and data ethics, an approach with a gender perspective, intersectionality, and feminism to support development. Data is extracted from people and communities; therefore, it needs to have alignment with human beings. A basic fact that creates a profound asymmetry involves inequalities between who collects, stores, analyzes, and visualizes the data, and the driving values of society. It is necessary to represent women and minority groups who are excluded in these biased models in AI. This means empowering universities, governments, and corporations to have a fairer and more representative labor, economic, and technological development sector. Any system that is developed or implemented must follow an ethical determination, considering its social impact on the population.

IDB Group and fAIr LAC initiative

In this context, fAIr LAC, the largest regional alliance for an ethical and responsible use of technology, poses a key challenge to influence both the public and private spheres, including the entrepreneurial ecosystem, with the aim of making technology an effective means for improving access to and the quality of social services, reducing social inequality gaps, and generating positive social and environmental impacts for society, especially for the most vulnerable population. The IDB Group advocates the construction of an ethical and responsible AI, mitigating its risks and contributing to sectors that are fundamental to economic and social development, such as education, health, social protection, financial inclusion, labor market, climate change, among others.

In order to strengthen the AI solutions developed by start-ups, IDB Lab has developed the 3S ethics IA self-assessment tool, which helps entrepreneurs identify the main areas of attention for their developments, in order to prevent errors, bias, discrimination, and exclusions.[4] This Challenge aims to contribute to a post-pandemic economic and financial recovery, by focusing efforts on promoting innovative solutions with social impact based on an AI system with a gender and intersectionality perspective. The Challenge is aligned with the IDB Group's commitment to supporting the development

[4]In this regard, review the IDB publication "Ethical Self-Assessment of AI for Actors in the Entrepreneurial Ecosystem: Application Guide," which is the basis of the interactive tool:
https://publications.iadb.org/en/ethical-assessment-ai-actors-within-entrepreneurial-ecosystem-application-guide

of inclusive and sustainable economies in Latin America and the Caribbean, addressing the challenges of gender equality and women's empowerment, especially in groups in poverty or vulnerable conditions.

Glossary

3 Objective of the Challenge

The Inter-American Development Bank (IDB), through its innovation laboratory IDB Lab, in the context of the fAIr LAC initiative, has **launched an open innovation challenge to identify, pilot, and accelerate technological solutions based on artificial intelligence (AI) that contribute, through the concept of algorithmic justice, to reduce bias and discrimination based on sex and gender.** The purpose is to find solutions that contribute to the incorporation of women into the economy and society, especially for groups in poverty or vulnerable conditions.

Along with climate change, **gender equality and diversity** are cross-cutting pillars in IDB Lab's work, and are addressed through each of the priority vertical areas, and the support for the consolidation of the region's innovation and entrepreneurship ecosystems. This is fully in line with the IDB Group's Vision 2025 to promote an inclusive digital economy that contributes positively to regional socio-economic development

IDB Lab seeks to support private sector organizations such as start-ups, small and medium enterprises (SMEs), civil society organizations, social enterprises, corporations, research centers, academic institutions, entities specialized in AI, and other ecosystem actors supporting emerging companies, among others, with business models of **"ready to be implemented"[5] innovative solutions** or who are **seeking to develop[6] the AI ecosystem with the inclusion of the sex and gender approach** in one or more of the verticals of interest of this Challenge.

The objective is **to contribute to the development of technologies, such as AI, to ensure damage prevention, risk mitigation and transparency based on the principles of fairness and non-discrimination**. Diversity is materialized through the introduction of an intersectional approach that considers sex, gender, age, race, ethnicity, socio-economic factors, and geography, among others. The design of proposals that promote synergies between entrepreneurial AI ecosystems and relevant actors involved in socio-economic,

[5]A "ready to implement" solution is an innovation that can prove the successful deployment of a prototype/Minimum Viable Product (MVP).
[6]Proposals aimed at improving the articulation of actors and increasing the robustness of AI solutions with a sex and gender perspective.

development, and social innovation areas providing results, application, and problem-solving in Latin America and the Caribbean will be valued.

The thematic areas of the Challenge are as follows (additional details can be found in section 4 below):

a. **Health and social welfare**
b. **Education, talent, and employment**
c. **Financial inclusion**
d. **Other IDB Lab's verticals**[7]

The proposed solutions must:

- Promote gender equality through adequate data governance and mitigation of potential biases of algorithms being used;
- Explore and harness the potential of AI and machine learning to mitigate and/or address gender gaps in the priority areas of the Challenge;
- Promote social and economic inclusion of groups in poverty or vulnerable conditions, including key indicators to measure results, and
- Design a path of scalability or replication, as well as financial sustainability.

4 Thematic Areas

IDB Lab seeks to identify innovative AI-based technology solutions with a sex and gender approach. The Challenge aims to stimulate the region's innovation and entrepreneurship ecosystem, especially stakeholders interested in the data and AI market to create greater awareness, knowledge, and skills about reliable, bias-free, and socially responsible AI.

This Challenge is framed within IDB Lab's verticals:

A) Health and Social Welfare

Solutions must aim to:

1. Improve access to health care for women and customize medical care in vulnerable populations by applying racial, ethnic, and age-based intersectionality and generating new

[7]The vertical areas of IDB Lab are: (i) agriculture and natural capital; (ii) essential infrastructure services; (iii) financial inclusion; (iv) education, talent, and employment; and (v) health. In addition, it has transversal issues: (i) climate change; and (ii) gender and diversity.

mechanisms with technological development that are able to correct for sex and gender biases, lack of data, and/or biased algorithms.

2. Promote development of new applications to address problems such as gender violence, hate speech, algorithmic biases in the detection of diseases, depression, and mental health, especially focused on women.

Some examples of challenges expected to be addressed by the proposals:

- What tools optimize complaints processes against gender-based violence? What solutions can we provide through AI against hate speech, gender-based violence on social media, and in relation to mental health?
- How to eliminate health biases that negatively impact women's quality of life? How to improve health care and personalized medical diagnoses by targeting women?
- How to optimize data in medical repositories and avoid gender bias in genomic samples?

B) Education, Talent, and Employment

Solutions must aim to:

1. Enhance women's participation in STEM.

2. Promote women's employment and talent.

3. Define recruiting models and search systems that avoid sex and gender, racial, and/or age biases in their design or dataset promoting efficient “job matching”.

Some examples of challenges expected to be addressed by the proposals:

- What role do algorithms play in selecting women and men for certain careers? How to mitigate the possible existence of gender bias in the selection processes of universities, programming schools, industries?
- How can AI help promote the development of scientific and mathematical skills, the development of inclusive educational environments, and scientific and technological vocations without the existence of sex and gender biases?
- How to correct gender biases in datasets or language of vacancies?
- What new practices are needed and how to develop them? How to do a "job matching" to test for sex and gender bias?

C) Financial Inclusion

Solutions must aim to:

1. Use of AI to detect access barriers in digital products, services, and channels that women may have to participate in the financial sphere, contract services, access loans, capital investments, and especially digital financial products.

2. Promote and facilitate online banking services, and business planning.

3. Help reduce digital barriers and the gender gap in the economic sphere.

Some examples of challenges expected to be addressed by the proposals:

- Development of AI to improve access to financial services by women or woman-led companies
- What data or models promote the provision of financial services or specialized loans to women?
- Credit risk predictive models proofed against sex and gender biases

D) Other IDB Lab vertical areas

Solutions must aim to reduce gender gaps in access to products and services and/or mitigate the existence of biases that negatively impact the quality of life of women with the application of AI-based technological solutions region-wide. Proposals can be presented in the IDB Lab verticals, in the areas of *agriculture and natural resources, essential infrastructure services*, and as a cross-section, in *climate change.*

5 Who can submit applications?

Start-ups, SMEs, civil society organizations, social enterprises, corporations, research centers, academic institutions, AI-specialized entities, and other ecosystem actors supporting emerging companies, with business models of "ready to be implemented" innovative *solutions*[8] of AI technology systems, equivalent to TLR 3[9] or higher, in the priority areas of this challenge, mentioned in section 4.

[8]A "ready to implement" solution is an innovation that proves the successful deployment of a prototype/Minimum Viable Product (MVP).

[9]*Technology Readiness Level* (TLR) is a nomenclature to evaluate the maturity of technological solutions (https://techdetector.de/trl).

Organizations may apply to this Challenge for **Category A** if: (i) They are located in one of the 26 IDB Group borrowing countries where the project will be implemented; or (ii) if they are legally registered in one of the 48 IDB member countries, other than the 26 Borrowing countries where the project will be implemented, **only in partnership with an organization** legally registered and located in one of the 26 borrowing countries where the project will be implemented. The impact of the project should benefit one or more of the Bank's 26 borrowing countries.

Regarding the honorable mention, as set out in **Category B**, organizations must be legally registered in one of the 22 IDB non-borrowing countries and have implemented AI solutions aligned with the objectives of this Challenge.

6 Category A

6.1 Category A Awards

IDB Lab may consider Applicants whose proposals are selected to receive funding to implement their proposed business model in one of the 26 IDB borrowing member countries.

Applicants whose proposals are selected will also be included in IDB Lab's network of global innovators working in Latin America and the Caribbean, aimed at the exchange of knowledge, experiences, and best practices, and they may have the opportunity to participate in *networking* events and other special activities organized by the IDB Group and its partners.

Selected Applicants will receive IDB Lab funding once:

a. The proposed business model has been duly analyzed to obtain evidence of its viability;
b. The experience in the relevant sector and in project implementation has been evaluated, as well as the Applicant's technical capacity to manage financial resources;
c. The availability or capacity to mobilize counterpart or co-funding resources has been demonstrated, and
d. Both parties have signed a written legal agreement to use IDB Lab funding and counterpart or co-funding resources towards the implementation of the selected model/project (the parties refer to IDB Lab and the selected applicant cleared through the analysis process).

Source: https://bidlab.org/en/how-to-apply

06.2 Evaluation Criteria for Category A

The applications will be evaluated according to the following criteria:

Innovation. Innovation level of the business model, use of AI to address gender gaps, and acknowledgment of the ethical challenges of the developed technological system. • Creativity to solve problems with a sex and gender perspective and intersectionality. • Relevance of technology implementation to address sex and gender issues in the thematic areas of the Challenge.	20%
Social and economic impact. Particular attention will be paid to models aimed at benefiting marginalized communities, particularly low-income and vulnerable populations, with a feasible and reasonable approach using AI. • Relevance of the proposed solution to address the problem in a sustained manner. • Clear definition of the theory of change. • Identification of target populations and vulnerable groups. • Alignment with the IDB Lab goals and SDGs.	20%
Feasibility. Feasibility of execution, including the definition of potential risks that may affect successful implementation, as well as mitigation actions to address these risks during implementation. • Team and project members (profiles and diversity). • Experience in project implementation, including a sex and gender approach. • Ability regarding technological implementation for social and economic problems specifically related to gender gaps. • Consistency between the description of the solution and the business model.	15%
Sustainability. Financial plan and/or sustainable growth potential over the next 3-5 years upon funding (income generation model); and ability to generate income in the case of	15%

Applicants for reimbursable funding. Potential for scaling up, growth, or replication of the proposed business model in the country where the project will be implemented. • Business model (projected flow growth) and income generation. • Clients/traction. • Funding planning. • Financial plan for years 1 and 2 including projected income and expenses. • Project scope and scalability region wide.	
Technical development and use of AI/ML. Projects to be considered should have a minimum viable prototype/product (MVP) successfully implemented. Besides, the technical capacity of the Applicant's team and strategic partners will be evaluated. • Description of the technology used, including AI automated learning techniques. • Proof of data sufficiency and possibility of obtaining additional data. • Description of intellectual property: How is the ownership, whether exclusive or shared, of data and databases developed? Are the algorithms totally or partially owned by the company? Are the algorithms outsourced to a third party? • Level of technological readiness of the proposed AI-based solution.	20%
AI Ethics Self-Assessment The proposal understands the challenges and the depth of the problem to be addressed. • It identifies the major ethical challenges of your AI solution, in line with the OECD principles on responsible AI. • It recognizes how a responsible AI approach increases the offering value of your proposal.	10%

06.3 Types of funding available for Category A

Applicants may submit proposals and request one of the financial instruments (or a combination thereof) that best suits their business model and organization type. Financial instruments include "Non-reimbursable Grant", "Contingent-Recovery Funding," and "Reimbursable Funding", as detailed in the table below.

Please note that:

A. In case of non-reimbursable grant and contingent recovery funding, Applicants must be able to contribute at least 50% with counterpart funds to the project budget (IDB Lab 50% + Applicant 50% = 100% Total Project Cost).

B. After a due diligence process, IDB Lab may propose financial instruments other than those requested by the Applicant.

Financial instrument	Contingent-Recovery Funding[10]	Non-reimbursable grant	Reimbursable funding
Applicant type	For-profit organizations including: • Start-ups • SMEs • Large corporations • Social enterprises (e.g. B corporations[11]) • NGOs	Non-profit organizations or companies that implement innovative models with limited earning potential, but with strong social and environmental impact, such as: • Foundations • Social enterprises (e.g. B corporations) • Accelerators • NGOs	Private organizations (for-profit or non-profit) that expect to generate a positive cash flow **proving the ability to** meet **the projected return**, such as: • Start-ups • SMEs • Social enterprises (e.g. B corporations) • Financial intermediaries (banks, cooperatives, microfinance institutions, foundations, etc.)

[10]Reimbursement conditions shall be agreed upon during the due diligence stage.

[11] *B Corporation* is a private certification delivered to for-profit companies based on their "social and environmental performance.

Model type/ Solutions	Projects using this type of funding are focused on piloting innovative solutions and income-generating, sustainable business models that could be scaled up or replicated, either during project implementation or in a subsequent stage (potentially with IDB Lab investment products and other financial support from the IDB Group).	This type of financing is offered generally to entities that implement innovative models with limited earning potential, but with strong social impact and replicability.	Projects using this type of funding focus on scaling up and growing innovative solutions and business models that already have evidence of initial traction and have the potential to generate income to be financially sustainable and scalable.
Use of financial resources	**Income-generating funding** such as the acquisition or development of *hardware, software*, equipment, and other investments. Acquisition of critical human and/or material resources to develop, test, or implement the proposed solution.	**Knowledge transfer funding** such as advisory services and technical assistance to design and implement solutions (individuals, firms, or specialized agencies), specialized consulting services, training, events and workshops, material production or reproduction (assessments, guides, manuals, infographics, etc.), travel expenses, communication materials (videos, case studies, etc.) and others	Mainly for capital expenditures (such as equipment, machinery, software, and other products) and working capital. Reimbursable funding may not be used for the purchase of land, real estate or shares of a company, or the payment of existing debts, among other uses excluded.

	IDB funding may also be used for advisory services and technical assistance to design and implement solutions (individuals, firms, or specialized agencies), specialized consulting services, training, events and workshops, material production or reproduction (assessments, guides, manuals, infographics, etc.), travel expenses, communication materials (videos, case studies, etc.) and others needed to achieve the project outcome. IDB funding could cover overhead costs such as the salary of existing staff or office expenses, and there are some restrictions on administrative costs funding.	needed to achieve the project outcome. Resources cannot be used for land purchase or infrastructure construction. Not more than 30% of IDB Lab funding may be used for equipment purchases, including *software* or other products. However, other resources could cover smaller investments in equipment and infrastructure/works. IDB Lab does not cover overhead costs such as the salary of existing staff or office expenses, and there are some restrictions on administrative costs funding.	

	Funding cannot be used for purchase of land or real estate. Funding could cover investments in equipment or infrastructure.		
Stage of commercial operation/profitability	Medium-high yet uncertain earning potential	Limited earning potential	With evidence of initial traction in the market, an organization with positive cash flow, and with income generation
Funding (range)	USD 150 000 – USD 750 000	USD 150 000 – USD 750 000	Visit: https://bidlab.org/en/products (under financing / Investment products) for more detail
Counterpart or co-funding requirement	Counterpart funds to be provided by the Applicant: 50% or above out of the total project amount; half in cash and half in kind. Total project amount = IDB Lab funding up to 50% + counterpart of the Applicant 50% or greater	Counterpart funds to be provided by the Applicant: 50% or above out of the total project amount; half in cash and half in kind. Total project amount = IDB Lab funding up to 50% + Applicant's counterpart 50% or higher percentage (25% in cash + 25% in kind).	Co-funding funds to be provided by other funders and/or investors: **desirable, but not mandatory.** * Co-funding will be considered positively for selection.

	percentage (25% in cash + 25% in kind).		
Additional conditions	The Applicant will be responsible for reimbursing whole or in part the funded amount if the business succeeds according to the conditions and the schedule agreed in the due diligence process.		The specific conditions of the reimbursable funding will be negotiated on a case-by-case basis depending on the proposed use of the funds, the business plan, the financial situation of the Applicant (assets, liabilities, equity, profitability), and financial projections, among others.

Time frame	Upon closing of the Challenge, design, and final approval by IDB Lab: 3-6 months. Implementation period: Between 12 and 36 months upon the signature of the legal agreement. The donation-backed business model must achieve its goals during this period. Repayment term: The conditions will be negotiated on a case-by-case basis, but in general will not exceed 5 years after the final date of project implementation.	Upon closing of the Challenge, design, and final approval by IDB Lab: 3-6 months. Implementation period: Between 12 and 36 months upon the signature of the legal agreement. The donation-backed business model must achieve its objectives during this period.	Upon closing of the Challenge, design, and final approval by IDB Lab: 4-6 months. The terms and conditions for reimbursable financing shall be decided on a case-by-case basis, within the frame of the project's needs.
Required Documents	Copies of the Applicant's last 2019-2021 annual financial statements– the availability of audited financial statements will be considered a plus.		

	• If applicable, written proof of counterpart or co-financing resources to implement the model (similar to a letter of interest or commitment). • Registration (this must be a legal document establishing the Applicant as registered or authorized by the government to do business. Organizations with temporary authorizations/licenses to operate in the country where the project will be implemented will not be accepted: i. For those Applicants registered in one of the 26 IDB borrowing member countries where the project will be implemented: A copy of the proof of legal constitution and incorporation of the Applicant under the laws of the country where the project will be implemented. ii. If the Applicant is registered in one of the 48 IDB member countries **other than the target country where the project will be implemented**: A copy of the Applicant's proof of legal constitution and incorporation under the laws of one of the IDB member countries, plus a copy of a **joint collaboration agreement** with an Applicant organization registered in the country where the project will be implemented. • Copy of the Applicant's bylaws and other documents on its corporate governance.

6.4 Application process for Category A

1. Complete the online application:

    a. Send the application through the online platform within the period specified in the Schedule for this Challenge.

2. Upload Documents:
    a. written proof of counterpart or co-financing resources
    b. written proof of legal constitution/incorporation
    c. Applicant's financial statements of the last three years

6.5 Selection process for Category A

Phase I - Preselection

Upon completing the application on the online platform, a technical team of the IDB Group and the allies for the Challenge will review, analyze, and pre-select the received applications, based on the best scores obtained through the assessment on the online platform.

During this preselection phase, the proposals obtaining the highest score will receive an invitation to carry out an AI ethical self-assessment (based on the self-assessment guide developed by fAIr LAC) through an interactive web application. The result of the AI ethics self-assessment will be a relevant input for the selection Phase through a pitch day.

In addition, during this Phase, the best proposals will be invited to participate in a two-week bootcamp to prepare the pitch to be presented during the selection Phase, as described below.

Phase II - Selection

The pitch day shall assess the suitability of the solution to address gender gaps, as well as the innovation and robustness of the proposed technology (with emphasis on an ethical AI perspective), and the potential for scalability. The selected entities will move on to Phase III and may participate in special and strengthening activities organized by IDB Lab and allies of the Challenge to apply for IDB Lab funding.

Phase III - Operations Design

IDB Lab will select applications according to the evaluation criteria of the Challenge. The selected applications will be announced according to the schedule established later in these guidelines.

After the best way to implement the model has been evaluated, IDB Lab will provide support to the selected Applicants, who have been validated as indicated in section 06.1 of these guidelines, to initiate project design (including the development of a project plan and other documents necessary to request IDB Lab's official internal approval). This process may last up to six months, depending on the maturity of the proposed model and the implementation capacity of the selected Applicants.

Source: https://bidlab.org/en/how-to-apply

**Please note that final approval is subject to IDB Lab's internal procedures, on the understanding that for a project to be selected for funding, it must have been approved by all those directly involved in IDB Lab's approval process. Likewise, a legal agreement shall be signed which sets forth how the funding and counterpart resources will be used to implement the model.*

7 Category B

7.1 Awards for Category B

Applicants with innovative solutions selected for an honorable mention may be included in IDB Lab's network of global innovators that operates in Latin America and the Caribbean for the exchange of knowledge, experiences, and best practices, and they may have the opportunity to participate in networking events and special activities organized by the IDB Group and its partners.

7.2 Evaluation Criteria for Category B

The applications will be evaluated according to the following criteria:

Innovation. Innovation level of the business model, use of AI to address gender gaps, and acknowledgment of the ethical challenges of the developed technological system. • Creativity to solve problems with a sex and gender perspective and intersectionality. • Relevance of technology implementation to address sex and gender issues in the thematic areas of the Challenge.	27%

Social and economic impact. Particular attention will be paid to models aimed at benefiting marginalized communities, particularly low-income and vulnerable populations, with a feasible and reasonable approach through the use of AI. • Relevance of the proposed solution to address the problem in a sustained manner. • Clear definition of the theory of change. • Identification of target populations and vulnerable groups. • Alignment with the IDB Lab goals and SDGs.	23%
Feasibility. Feasibility of execution, including the definition of potential risks that may affect successful implementation, as well as mitigation actions to address these implementation risks. • Team and project members (profiles and diversity). • Experience in project implementation, including a sex and gender approach. • Ability regarding technological implementation for social and economic problems specifically related to gender gaps. • Consistency between the description of the solution and the business model.	20%
Technical development and use of AI/ML. Projects to be considered should have a minimum viable prototype/product (MVP) successfully implemented. Besides, the technical capacity of the Applicant's team and strategic partners will be considered. • Description of the technology used, including AI automated learning techniques. • Proof of data sufficiency and possibility of obtaining additional data.	20%

• Description of intellectual property: How is the ownership, whether exclusive or shared, of data and databases developed? Are the algorithms totally or partially owned by the company? Are the algorithms outsourced to a third party? • Level of technological readiness of the AI-based solution.	
AI Ethics Self-Assessment The proposal understands the challenges and the depth of the problem to be addressed. • It identifies the major ethical challenges of your AI solution, in line with the OECD principles on responsible AI. • It recognizes how a responsible AI approach increases the offering value of your proposal.	10%

7.3 How to apply for the Category B

Applicants from the 22 IDB Non-Borrowing member countries can apply for Category B by completing the following steps:

1. **Complete the online application:**
    a. Send the application through the online platform within the period specified in the Schedule for this Challenge.
2. **Upload documents**
    a. Written proof of constitution/incorporation/bylaws.
    b. Organizational presentation and description of the AI solution and its impact (10MB max., in pdf format).
    c. Video describing the AI solution of up to 2 minutes (recommendation: Use URL format on YouTube or Google Drive).

7.4 Selection process for Category B

Phase I - Preselection

Upon completing the application on the online platform, a technical team of the IDB Group and the allies for the Challenge will review, analyze, and pre-select the applications received, based on the best scores obtained through the assessment on the online platform.

During this preselection Phase, the best proposals will be invited to carry out an AI ethics self-assessment process based on the self-assessment guide developed by fAIr LAC, and access to its interactive tool will be provided. The result of the AI ethical self-assessment would be considered as necessary input to move towards the second selection phase, which will be held through a pitch day.

During this preselection Phase, the best proposals will be invited to participate in a two-week boot camp to prepare the pitch that they will present during the selection Phase, as described below.

Phase II - Selection

The pitch day will assess the suitability of the solution to address gender gaps, the innovation and robustness of the proposed technology (with emphasis on an ethical AI perspective), as well as the potential for scalability. The selected entities will be granted an honorable mention and will be able to participate in special and strengthening activities organized by IDB Lab and the allies for the Challenge.

8 Timeline*

* The dates are approximate and subject to change:

- **Launch of the Challenge and proposal reception start date:** July 7, 2022
- **Application submission deadline:** August 31, 2022 (Midnight Eastern Time, USA)
- **IDB Group preselection stage (Phase I): From** September 1 to 16, 2022
    - **Ethics AI self-assessment period for the best preselected proposals:** Last week of September 2022
    - **Notification of preselected proposals:** Early October 2022
    - **Boot camp with preselected proposals to prepare final selection pitch:** Late October 2022
- **Pitch day to select proposals (Phase II):** Early November 2022
- **Announcement of selected proposals:** November 2022
    - **Special strengthening activities with the selected entities:** November and December 2022

9 FAQs

Send your questions and queries to: genderAIchallenge@iadb.org.

10 Disclaimers and Reservation of Rights

The IDB reserves the right to eliminate participants at any stage of the process, and this decision shall be final and binding. The IDB may decide not to select an Applicant if they do not meet the requirements or are not considered as having sufficient quality.

The IDB may search for publicly available information on the Applicants and may try to verify details included in the application. The IDB reserves the right to cancel the competition at any time.

All decisions of the IDB are final and binding, and unappealable.

Applicants who submit content that is offensive, illegal, etc., and those who discredit the IDB or other sponsors will be eliminated.

The IDB will not consider those Applicants who are not eligible to participate in IDB projects or hiring processes based on its sanctions' protocol.

Participants must certify that the submitted documents are original and that they are not infringing on any copyrights or other intellectual property. Any such infringement may result in disqualification. Applicants are responsible for all content such as photos, images, videos, graphics, written content, audio files, information, or uploaded or submitted data.

The IDB shall not be responsible for the protection of the intellectual property of the proposals submitted.

The IDB does not provide individual feedback or comments on the applications.

In order to receive IDB funding, the selected Applicants shall sign an agreement with the IDB which includes relevant commitments, representations, and grants of indemnity by the Applicant.

IDB reserves the right to disseminate and share the identity of the Applicants and any other information deemed relevant.

IDB reserves the right to share the information on the application, without the need for consent or approval by the Applicant, either within the IDB Group or with strategic partners, and under non-disclosure agreements, aimed at searching for co-financers.

These terms and conditions may be updated at any time and will be made available to all participants online.

11 Glossary

Diversity: It refers to all the ways in which people are different, including main characteristics, such as age, race, sex and gender, ethnicity, mental and physical abilities, and sexual orientation; as well as secondary characteristics, such as education, income, religion, work experience, language skills, geographical location, and family status. In summary, diversity has to do with all aspects that make individuals different one from another, and in the most basic terms, it refers to the heterogeneity of the population *[ref.]*.

Stereotype: It's an over-simplified generalization about a person or a social group. Stereotypes can be built on negative and positive qualities. Stereotypes are also cognitive; they are shortcuts to better understand a dynamic that can become a bias when applied in a way where generalization is not equivalent to the particularity. *[ref.]*.

Gender: This term refers to the characteristics of behavior and roles that are socially attributed to women and men in each historical, cultural, and socio-economic context, beyond their biological differences, and which help shape the responsibilities, opportunities, and barriers faced by both women and men. [OP-761 IDB Operational Policy on Gender Equality in Development. 2010].

Gender Equality: Gender equality means that women and men enjoy equal conditions and opportunities to exercise their rights and achieve their social, economic, political, and cultural potential. [OP-761 IDB Operational Policy on Gender Equality in Development. 2010]

Inclusion: It is the practice or policy of providing equal access to opportunities and resources for people who might otherwise be excluded or marginalized, such as those who have physical or intellectual disabilities and members of other minority groups. [Oxford English Dictionary.].

Social Inclusion: It is the process of improving the terms on which individuals and groups take part in society (markets, services, and spaces)—improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity. [World Bank: Inclusion Matters, the Foundation of Shared Prosperity, 2013]

Artificial intelligence: Artificial intelligence (AI) defines those systems that display intelligent behavior by analyzing their environment and taking measures, with a certain degree of autonomy, for a specific purpose. The machine receives, processes, and

responds to data that is prepared or collected through its own sensors. AI systems can adapt their behavior to a certain extent, analyze the effects of previous actions, and take actions with some degree of autonomy. According to the definition of the European Commission, AI can be a) based on software acting in the virtual world: voice assistants, image analysis software, search engines, speech and face recognition systems; or b) Artificial intelligence embedded in hardware devices: robots, drones, autonomous vehicles, Internet of things. *[ref.]*

Intersectionality: Intersectionality refers to the interconnected nature of social categorizations that apply to a specific individual or group, which is considered to create overlapping systems of discrimination or disadvantage. It is important to consider intersectionality in development policies and programs, as overlapping identities can hamper access to development opportunities and outcomes.

For example, while enrollment and educational achievement have reached gender parity at the national level in many countries, an analysis of indigenous women/girls often reveals substantial educational gaps compared to their male counterparts and regarding other groups of women/girls in the country. Within this context, they may require solutions that consider their entire identity. The IDB Group will not only strive to include all aspects of diversity in its operations and analytical work, but will also expand its focus on intersectional needs and perspectives. *[GDAP 2022-2025, Section I.B.]*

Algorithmic Justice: Actions towards an equitable and responsible AI. This requires observation of how AI systems are developed, as well as active prevention of harmful use of AI systems. The goal is then to empower communities and encourage decision-makers to take measures that mitigate the harms and biases of AI. For an AI system to prove that it is significantly transparent, it has to explain how the system works, how it was designed, and its purpose. At the very core, increased transparency allows people to clearly understand the projected capabilities and identified limitations of AI. To prove this standard true, businesses, academia, and governments must share information about the use of AI in their own decision-making, and the way it is sold to others. The goal is a general understanding of the social risks involved in every encounter with an AI, and of the use of their data to make decisions that affect them. [ref.].

Peoples and Diverse Population Groups (DPG):[12] The IDB Group is committed to equal access to opportunities for diverse population groups in Latin America and the Caribbean (LAC). The Bank focuses on four diverse groups that face discrimination based on their

[12]The diverse groups, as described in this document, will always include indigenous and traditional peoples, with their unique collective identities.

collective identity, i.e. indigenous peoples (IP)[13], African descendants (AD)[14], persons with disabilities (PCD)[15], and people who identify themselves as lesbian, gay, bisexual, transgender, queer, or other nonconforming sexual orientations and gender identities (SOGI) and intersex individuals (LGBTQ+).

Peoples and Diverse Population Groups (DPG): The Bank's definition of diversity is focused on groups that face discrimination and/or exclusion, and unequal access to opportunities, resources, and services based on their collective identity. The Bank's approach toward diversity recognizes the needs while promoting the design of differentiated solutions to address these needs. The concept of development with identity, introduced by the Bank's Operational Policy on Indigenous Peoples (OP-765), requires an understanding of diverse contexts (present and historical), aspirations, and needs, and making them the basis for the design of solutions aimed at supporting development16. Various groups also have specific protected rights (ESPF, 2020).

Bias: It is a prejudice for or against one thing, person, or group compared to another one, usually in an unfair or negative way. Unconscious bias, also known as implicit bias, is defined as *"attitudes and stereotypes that influence judgment, decision-making and behavior in ways that are out of conscious awareness and/or control" [ref.].*

Sex: It refers to the biological characteristics that define men and women. In humans, sex expresses the biological attributes that distinguish men, women, and intersex. In non-human animals, sex indicates the biological attributes that distinguish males, females, and hermaphrodites. In engineering research and product design, sex includes anatomical and physiological characteristics that can affect product design, systems, and processes *[ref.].*

[13]The Operational Policy on Indigenous Peoples (OP-765, 2006) was the IDB Group's first policy to recognize the collective identity of indigenous peoples.

[14]This term includes African descendants, African descendant peoples, and traditional African descendant peoples (such as quilombolas, palenqueras, raizales, cimarrones, and others).

[15]The IDB recognizes the social model of disability acknowledged by the Convention on the Rights of Persons with Disabilities (CRPD), where disability is defined as the interaction of an impairment (either physical, mental, cognitive, or sensorial) with external barriers that hinder effective participation in society. Disability is not determined solely by a health condition.

[16]The Bank's Operational Policy on Indigenous Peoples (OP-765) defines development with identity as "a process that includes the strengthening of indigenous peoples; harmony with their environment; proper management of territories and natural resources; generation and exercise of authority; and respect for indigenous rights, including the cultural, economic, social and institutional rights and values of indigenous peoples in accordance with their own worldview and governance."