## SUMMARY OF THE PROJECT IN DESIGN \* (\*)

## Refurbi

PITCH ELIGIBILITY DATI	Ε	COUNTRY(IES)
02/10/2025		Colombia
ALIGNED WITH COUNTR	RY STRATEGY?	
Yes		
PARTNER(S)		
Refurbi Colombia		
PRELIMINARY CLASSIF	CATION ENVIRONMEN	ITAL AND SOCIAL IMPACT
B (**)		
TOTAL BUDGET	IDB Lab	LOCAL COUNTERPART AND COFINANCING
	US 2,000,000	
DESCRIPTION		

**The problem** As technology advances and electronic devices (particularly smartphones) become essential, the demand for new devices skyrockets, leading to the rapid replacement of older models. This surge in consumption drives increased mineral extraction, one of the most significant contributors to CO2 emissions, while the disposal of outdated devices combined with a low recycling rate results in vast amounts of electronic waste (e-waste), burdened with hazardous materials and high concentrations of metals. Environmental impact of mineral over-extraction and increasing e-waste. Mining industries account for approximately 4% - 7% of global greenhouse gas emissions; from that, the information and computer technology sector (including smartphones) contributes 1.5 - 3%. Smartphone manufacturing is closely tied to the mining industry due to the large quantity of minerals required for each device. The exponential increase in the production of smartphones, combined with the low recycling rate of used devices, has led to the overexploitation of natural resources. This results in significant CO2 emissions during the extraction process and causes pollution of natural ecosystems, bodies of water and other environmental damage.

E-waste is the fastest-growing solid waste stream in the world, increasing three times faster than the world's population. Millions of electronic devices are disposed of each year due to either malfunctioning or becoming obsolete, leading to their discard.

Particularly in Colombia, the generation of e-waste reached 38,000 metric tons in 2022. During that year, Colombia ranked as one of the largest producers of e-waste in LAC. As a response, the Colombian government launched the "Estrategia Nacional de Economía Circular" (ENEC). Additionally, Colombia's Extended Producer Responsibility (EPR) scheme for e-waste requires producers, importers, and distributors of electronic goods to take responsibility for the entire lifecycle of their products.

Insufficient recycling and refurbishing. Currently, only 17.4% of e-waste containing a mixture of harmful substances and precious materials, is being properly collected, treated, and recycled. However, e-waste contains valuable, limited resources that can be recovered through proper recycling.

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LAC's recycling systems remain inefficient, with only a fraction of e-waste being adequately treated or reused. Addressing the treatment of e-waste and reducing resource depletion has become an emerging problem that can be diminished through reusing and refurbishing.

Digital inclusion in LAC. In LAC, 32% of the population, equating to 244 million people, lack internet access. For 40% of the population's residents, the total cost of owning a smartphone represents 17% of their income, making it out of reach. The digital gap exacerbates social inequalities by limiting access to essential technology, which is disadvantaging marginalized communities in education, employment, and communication.

The solution Refurbi Colombia SAS ("Refurbi" or the "Company") is a Colombian startup established in 2018 that creates products and services aimed to promote the used and refurbished mobile device industry in LAC. The Company significantly reduces the purchasing gap and makes consumer electronics far more accessible and affordable. By refurbishing mobile devices, their lifecycle is extended, reducing the need for new production and minimizing e-waste. The Company's refurbishment process ensures that the devices meet high standards of quality and functionality, providing consumers with reliable and affordable technology.

Refurbi's business model focuses on creating a sustainable ecosystem for mobile devices in LAC, with a strong emphasis on the circular economy. The model is powered by multiple interconnected revenue streams, all aimed at reducing environmental impact while maximizing social benefits such as digital inclusion and smartphone affordability. The Company offers smartphones at prices 20% to 60% lower than new devices (depending on the model and year), providing up to 14 months of warranty and a new-like unboxing experience. Additionally, it promotes a sustainability culture among customers by including information on the smartphone packaging that highlights the environmental impact of their purchase. Notably, each smartphone resold helps prevent the emission of 77 kg of CO2, the use of 75,600 liters of water, the extraction of 243 kg of raw materials, and around 178 g of e-waste.

Products. The Company offers refurbished smartphones from nearly all major brands, ranging from 2018 to 2024 models. These devices undergo a thorough restoration process to ensure that the final product is optimal and durable for the customer. Each device is packaged in a box made from recycled materials, featuring the Refurbi brand, and including details about the environmental contributions made by the customer's purchase.

Scalability. The growth strategy consists of the development of four verticals: i) the achievement of sources of supply that allow a stable and profitable operation; ii) the expansion of reconditioning capacity and the development of innovation and technology that facilitate, enhance and optimize the process; iii) the stabilization and growth of current marketing channels, as well as opening new ones; iv) open new markets, starting with Mexico and Peru (currently piloting projects in each country).

Innovation. Refurbi is innovating in product life extension, reverse logistic systems, and zero-waste strategies, which are necessary for a framework like the ENEC. Technology-driven systems for sourcing, refurbishment, and sales and collaboration with companies to fulfill EPR obligations.

The beneficiaries Clients are located in populations facing economic constraints that limit their access to new technologies. They often belong to low- to middle-income households, where affordability is a significant barrier to purchasing new mobile devices. Hence, Refurbi's initiative to offer affordable, high-quality, refurbished mobile devices to these populations greatly aids in

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giving them access to essential digital tools for education, work opportunities, and social participation, helping to close the digital gap.

In 2024, the Company sold approximately 1,000 refurbished devices per month to low-income consumers. By 2026, the goal is to double these sales to 2,000 devices per month for low-income populations. Additionally, the refurbishment facility is located in a peri-urban area of Colombia (~100 miles from Bogota). Currently, the Company employs 80 people, 50% of whom live in peri-urban areas. By 2026, the workforce is expected to grow to 300, with 60% coming from peri-urban regions. Beyond wages, employees benefit from training programs designed to enhance their skills in device repair and refurbishment, promoting long-term economic stability.

Environmental impact: Using recycled metals is 2 to 10 times more energy efficient compared to smelting metals from raw minerals. Additionally, extracting materials from discarded electronics results in 80% fewer carbon dioxide emissions per unit than mining them from the ground.

In 2018-2024, the Company has refurbished and sold a total of 52,000 smartphones. This has helped prevent the emission of over 4,000 tons of CO2, the use of more than 1,399 million liters of water, the extraction of over 12,650 tons of raw materials, and the disposal of 9.2 tons of electronic wast

The partner The borrower and executor of the project will be Refurbi Colombia SAS, a circular economy startup established in 2018 in Bogota, Colombia. Currently, Refurbi is the leading mobile device refurbishment company in Colombia. It was the first company to gain the trust of major retailers such as Cencosud, Telefónica, Panamericana, and Celsia, among others, to sell refurbished devices in their stores under the Refurbi brand. It boosts the most extensive refurbishment production infrastructure in Spanish-speaking LATAM.

The IDB Lab's contribution The proposed senior loan of up to US\$2M with resources of the Social Entrepreneurship Program (SEP).

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