EXECUTIVE SUMMARY

The problem. Rapid technological advances and growing reliance on electronic devices, especially smartphones, have driven sustained demand for new models and shortened the replacement cycle of older ones. This intensive consumption pattern has increased the extraction of minerals—a major source of carbon dioxide emissions—and accelerated the generation of electronic waste, which contains hazardous materials and high concentrations of metals. Globally, mining industries generate between 4% and 7% of greenhouse gas emissions, while the information and communication technologies sector accounts for between 1.5% and 3%.[1] The highly natural-resource-intensive production of electronic devices has contributed to overexploitation of ecosystems and water pollution. At the same time, e-waste—already the world's fastest-growing solid-waste stream—reached 62 million tons in 2022 and could rise to 82 million tons by 2030, according to United Nations estimates.

In Chile, this problem is particularly critical: the country ranks second in e-waste generation per capita in Latin America and the Caribbean, with more than 200 tons expected this year (11.6 kg per person), of which only 3.4% is collected and properly treated.[2] Limitations in collection and final-disposal infrastructure, together with the absence of effective recovery mechanisms, have turned e-waste into an environmental and public-health problem. To address this challenge, the Chilean government has implemented the Estrategia Nacional de Economía Circular (National Circular Economy Strategy) and enacted the Ley de Responsabilidad Extendida del Productor (Extended Producer Responsibility Law) (REP), along with the Hoja de Ruta para un Chile Circular al 2040 (Roadmap for a Circular Chile by 2040), which promote recycling, reuse, and circular business models. However, there remains a significant opportunity to develop scalable and sustainable models that operate under these principles and accelerate their adoption nationwide.

Solution. Servicios Intermediarios Reuse Chile, SpA ("Reuse" or "the company") is a Chilean firm that develops products and services to strengthen the refurbished and used electronic-devices industry. The company processes, repairs, and resells devices with full traceability,[3] ensuring high quality standards and offering reliable and affordable technology to consumers through its own e-commerce platform and third-party marketplaces. Its business model promotes a sustainable ecosystem for electronic devices by combining technological innovation, traceability, and diversified revenue streams, thereby reducing the technology-access gap, facilitating affordability, and helping mitigate the growing e-waste problem.

Expected outcomes. The project described in this document aims, through a senior loan, to support the expansion of the Reuse circular-economy model, generating positive environmental effects and contributing to the digital inclusion of low-income populations. Over the life of the project, by promoting the reuse of electronic devices—primarily smartphones and computers—it is expected to avoid the generation of approximately 55 tons of waste, reduce carbon dioxide equivalent emissions by 11,675 tons, and save more than 12 million liters of water. It is also estimated that about 30% of total sales of refurbished devices offered at affordable prices will reach people living in municipalities with the highest incidence of poverty in Chile.

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1 https://syllucid.com/blogs/news/how-does-metal-mining-for-electronics-impact-the-climate-crisis.

2 Fundación Chile (https://fch.cl/iniciativa/residuos-e/).

3 Smartphones, tablets, computers, smartwatches, white goods, and gaming consoles, among others.