

Project “H2 Power Plants for LATAM”

Scaling Modular Green Hydrogen for Industrial Transformation in Brazil and Chile

The challenge

Both Brazil and Chile recognise green hydrogen (H₂) and Power-to-X (PtX) as essential drivers for long-term decarbonisation and economic growth. Decarbonising the industrial sector while maintaining competitiveness will be a challenge along the way. Especially small and medium-sized enterprises (SMEs), so far, lack the access to the hydrogen market, since large infrastructure and production capacities must be achieved, to be able to guarantee competitive prices.

Apart from access and general availability, the absence of know-how also poses a challenge. SMEs form essential pillars of the respective local economies, representing a significant share of employment and industrial output, yet they often operate with limited margins to invest in innovative technologies and the research necessary.

Some of the biggest challenges lie in the identification of suitable industrial sectors and sites, awareness rise in these sectors and convincing local industries with hard figures to invest in an H₂-application.

The solution

The public-private partnership (PPP) between GIZ and Wilo seeks to develop the market for high-end green hydrogen generation for use in industrial production in Chile and Brazil. While the GIZ contributes its experience in fostering sustainable economic development, strengthening institutional frameworks and creating enabling policy environments, Wilo provides the technical know-how and practical implementation capacity through its H2POWERPLANT's System.

This system provides a modular, intelligent, decentralised industrial-scale energy solution that enables the production of green hydrogen through the electrolysis of renewable energy sources on SME premises.

The integration of hydrogen production, storage and utilisation into a compact and modular system offers a pathway to the decarbonisation of SMEs while strengthening their energy independence.



Fig. 1: Pilot project of the H2POWERPLANT, installed at Wilo's main production plant in Dortmund, Germany

Modular plants like this one provide valuable technical insights that serve as a foundation for evaluating the performance, feasibility and scalability of such systems. In order to facilitate further market development, the identified challenges, as well as the possible changes necessary will be analysed and published. This serves to foster knowledge transfer and enable stakeholders to benefit from the lessons learned.

By combining practical experience, systematic market analysis and transparent dissemination of results, the project goes beyond implementation with the goal of fostering a sustainable market environment. It paves the way for future innovation, collaboration, as well as facilitates investment decisions for hydrogen applications that accelerate the broader deployment of green hydrogen technologies.

How it will be done

The public-private project (PPP) is a collaborative initiative focussed on market development, knowledge sharing and capacity building in emerging markets, from which multiple stakeholders will benefit.



Fig. 2: Modular and intelligent industrial H2POWERPLANT concept scheme from Wilo. Published by WILO SE.

First, a detailed market analysis will be conducted to identify the most attractive industry sectors and potential industrial clients for modular hydrogen solutions. Based on this information, interested companies will be selected to conduct detailed energy system assessments for use in prefeasibility studies, which will inform investment decisions regarding H₂ solutions for industrial clients and help to develop appropriate business models.

Information campaigns will then be run to promote H₂ technology solutions for industry, using Wilo's concept as an example of a "Made in Germany" solution. The results of the plant concept and PPP outcomes will be shared with industrial and financial sectors, government decisionmakers and the public.

Additionally, in close cooperation with local educational partners, training sessions and knowledge transfer initiatives will be held for the local workforce.

This will enable people to respond to the increasing demand for support in H₂ projects for industrial applications, thereby promoting sustainable market growth through technology transfer and the formation of local know-how.

Expected outcome

The project will contribute to the development of the green H₂/PtX market in Brazil and Chile by promoting the implementation and development of hydrogen-based solutions, opening new business opportunities for local engineering companies and project developers and enhancing the competitiveness of the local manufacturing industry.

Small and medium-sized industrial production plants in Brazil and Chile will benefit from advanced technological solutions that optimise internal processes, improve energy efficiency and reduce CO₂ emissions, aligning with national decarbonisation objectives.

Through the PPP project, apart from the promotion of green H₂ and renewable energy, technology transfer will be fostered, benefitting local actors. Moreover, the adoption of hydrogen solutions, such as those offered by Wilo, will contribute to reduced fossil fuel consumption, lower CO₂ emissions, and a decreased reliance on fossil energy imports.

The project at a glance

Duration	August 2025 – September 2026
Country	Brazil & Chile
Objectives	The project aims to develop the market for industrial scale, green H ₂ generation with its application in the industrial sector.
Partners	Wilo, AHK Chile, AHK Río and GIZ on behalf of the German Federal Ministry for Economic Affairs and Energy.
Outputs	- Market analysis and key sector identification - Prefeasibility studies and business model development - Information and sensibilisation - Know-How transfer and training

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