

H₂Uppp

International Hydrogen Ramp-Up Program



Deutsch-Chilenische
Industrie- und Handelskammer
Cámara Chileno-Alemana
de Comercio e Industria



Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Gefördert durch:



Bundesministerium
für Wirtschaft
und Klimaschutz

aufgrund eines Beschlusses
des Deutschen Bundestages

H2 Uppp: a program for the development of green H2 projects (early stage) in markets outside Europe.



H2-Uppp **accompanies and supports** efforts to boost the **green hydrogen** (H2) and Power-to-X (PtX) market in selected developing countries and emerging economies in cooperation with the private sector.



German government initiative (**BMWK**)

giz

Implemented by GIZ



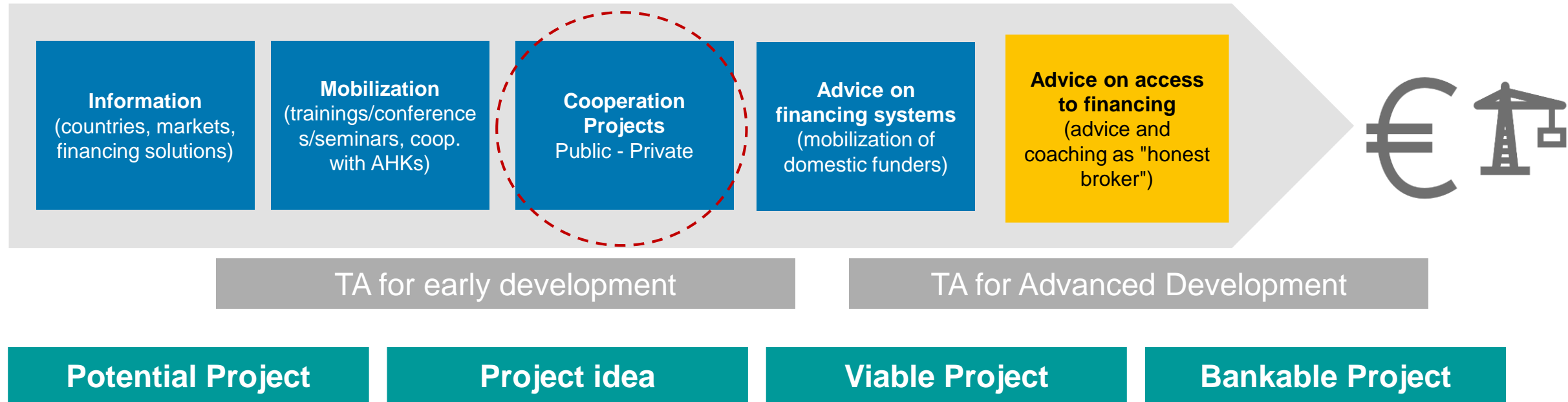
German chambers of commerce, trade associations, local companies and partners



Until 12/2023 (Possible extension until 06/2026)



Concrete H2Uppp services for green H2 market development in the region



H2Uppp regional Service: Market *Information*

Country Briefs

- Quick overview on country investment climate (multi-lingual)



Get a quick overview of a country's investment climate for Green H2

Market Insights

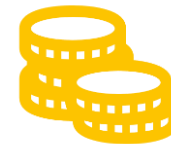
- Guidance on “how to” enter a specific market segment in H2 value chain (multi-lingual)



Understand ‘how to’ enter a specific market segment in H2 value chain

Funding Database

- Comprehensive, searchable, accurate database on available financing solutions for Green H2 market



Find a financier that suits your needs

H2Uppp regional Service: *Market Mobilisation*

Networking with
industry associations

+15

Communications with
public institutions

+10

Meetings with private
companies

+150



H2Uppp regional Service: *Market Mobilisation*



ENERGYEAR



Participation and organization of events

Press releases +37
+65

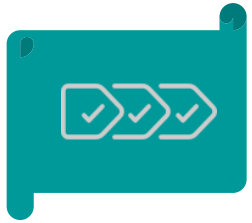
Participants technical seminars organized by H2Uppp

+3000

Newsletter subscribers

+3700

Public-Private Partnerships: Agreement between GIZ and private enterprise



Projects along the entire H2 value chain



H2 green and derivatives



Sustainable development in the project country



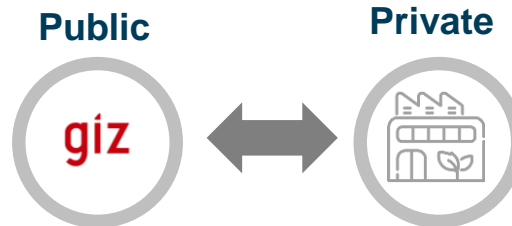
Public Benefit purposes, public content and results



Synergies between German/European companies and local partners



Service agreement



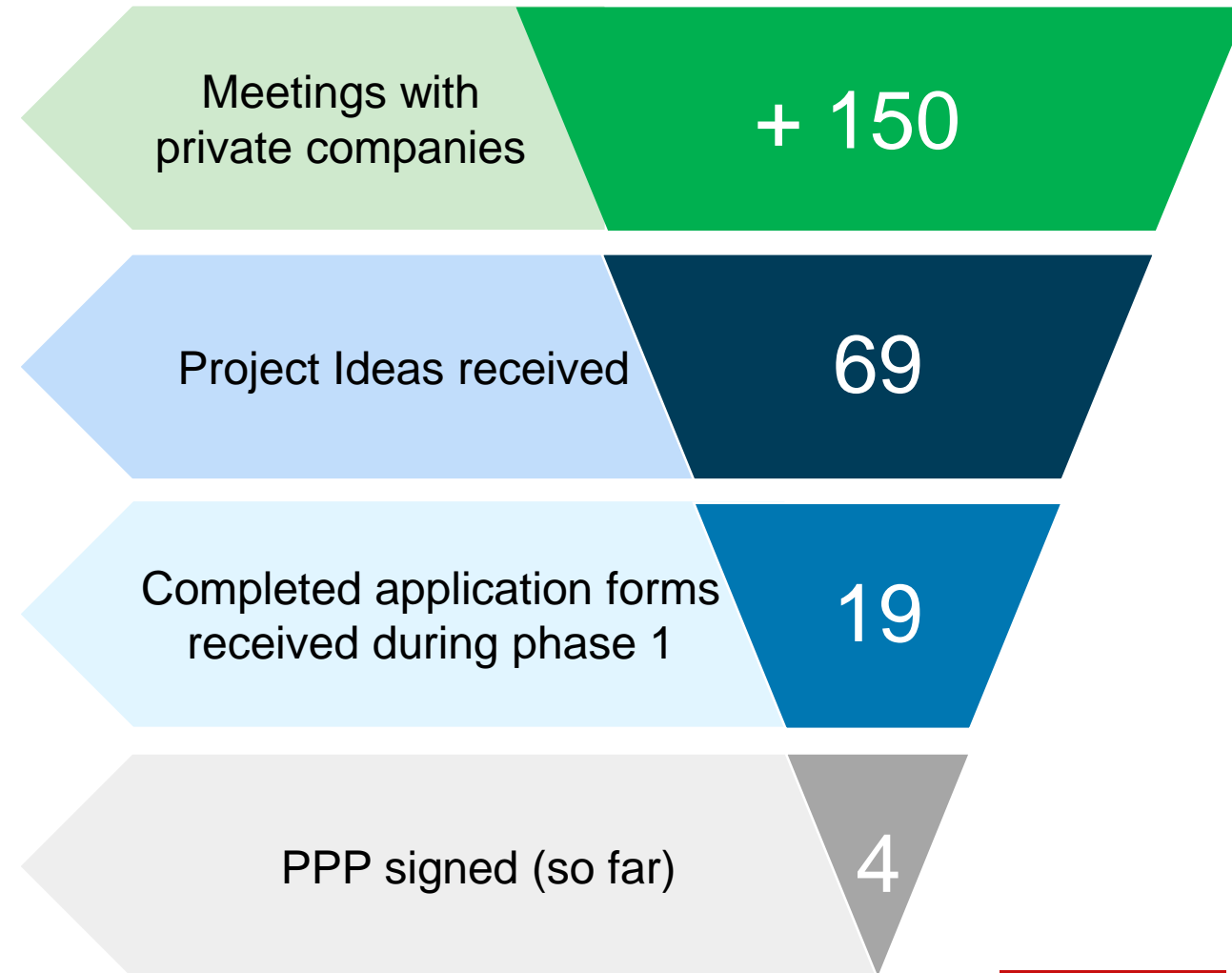
Cooperation agreement

- **Public contribution are minimum EUR 100,000 and up to EUR 200,000 for certain services implemented by the company.**
- **There is a cash flow between both parties**
- **The company receives up to a maximum of 50% remuneration for these services.**
- **Regular audits are required.**
- **The company and GIZ agree on quantifiable measures, which are financed and implemented by each party.**
- **There are no cash flows between the two parties**
- **Public contribution are minimum EUR 100,000**
- **Public cooperation includes a contribution of up to EUR 2,000,000**

Numbers of H2Uppp in LATAM region

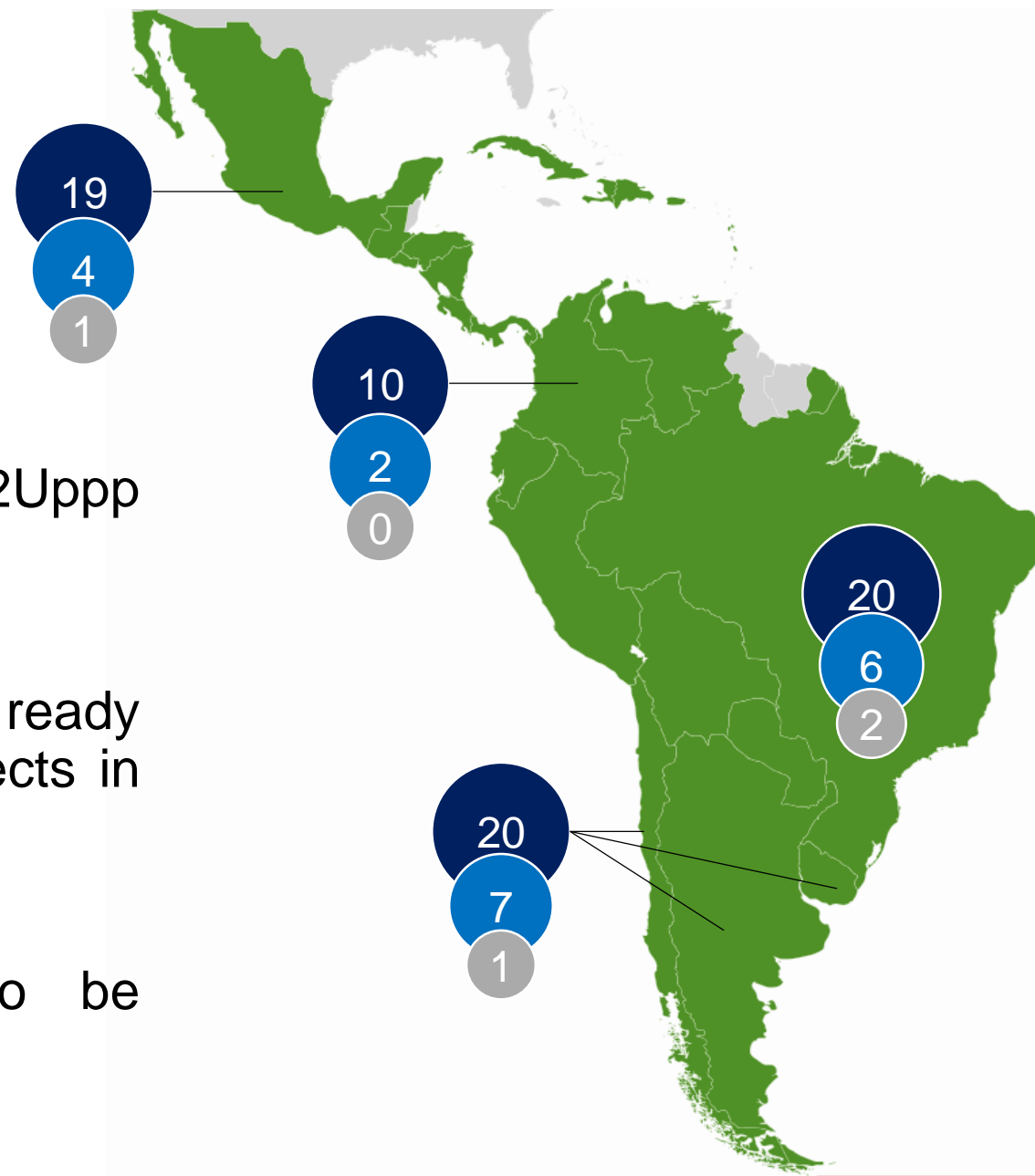
Highlights

- The "funnel" illustrates the performance from the beginning of the process, but also the company's journey from the first contact to the approval of the PPP.
- Throughout the application process, 69 companies decided to work on a project idea to apply to H2Uppp
- Thanks to the support of H2Uppp teams in LATAM region, 19 concrete proposals were developed until a completed version.
- Of the 19 forms received, 4 materialized in PPPs currently under development, while a part of the rest is being evaluated for implementation during 2023, and the other part has expressed interest in applying for a potential phase 2.



Geographic PPP Pipeline Distribution

- Strong interest from the private sector in all H2Uppp focus countries in LATAM.
- Large number of proposals in their final version ready for evaluation → potential for future PPP projects in phase 2.
- At least 3 more PPPs are expected to be implemented in LATAM during phase 1.



AHK cooperation across LATAM:

PROJECT SCOUTING

- Building a pipeline of PPP project candidates
- Promotion of the PPP instrument
- Linking companies
- Driving PPP applicants to H2Uppp

RAISING AWARENESS

- Mobilize the private sector
- Generate leads for PPP instrument
- Forge partnerships
- Promoting B2B relations with Germany on national and subnational level
- Raising awareness for green H2 investments

OUTREACH & COMMUNICATION

- Communicate the benefits of green H2 and the project activities

DELEGATIONS & BUSINESS CASE LABS

- Selected regional events/forums
- Business case labs in the region

PPP Stories in H2Uppp - Cooperation Agreement

Mexico - Marengo I: The road to decarbonization with Green Ammonia



Applicant Company

HY2GEN



Volume

> EUR 500,000, of which
39% public contribution



HY2GEN

MexCo
MEXIÓN CORPORATION

“The cooperation of GIZ Mexico through H2-Uppp, with Hy2GEN and MexCo will support them in the development of projects and proposals with sustainable impact for all”, Elke Hüttner, GIZ GloBe.



About this PPP

Development of a Green Ammonia Blueprint for feasibility of an integrated off-grid production plant in Mexico, including regulatory critical path and safeguards assessments, as well as capacity development of external actors.

Implementation time: 1,5 years.



Results and impacts

Reduction of risks and costs for project developers. Greater commitment of the stakeholder engagement and improved capacities. Environmental, social, safety and techno-economic analysis of the project. Map of a regulatory path for off-grid green ammonia plant



PPP Stories in H2Uppp - Cooperation Agreement Brazil – MELE Biogas GmbH: Production of sustainable hydrogen derivative from biogas and green hydrogen



Applicant Company

MELE Biogas GmbH



Volume

> EUR 2,638,400, of which
20 % public contribution



About this PPP

Development of a concept for the sustainable use of agricultural waste to produce green SynCrude and build knowledge about technical possibilities and economic opportunities with the aim of accelerating the development of the green hydrogen market and its derivatives.

Implementation time: 1 year.



Results and impacts of this PPP

Ecological and economic benefit from the transfer of know-how and technical applications. The concept will improve the economic situation of participating cooperatives and support the expansion of a regional hydrogen economy.

"This is an international project that ensures the existence and development of the 332 livestock farms gathered in a cooperative. This win-win situation, it is part of the reorganization of energy supply and security in Germany". Explains Dietrich Lehmann, general director of the German company Mele.



Photo by: Luíz Diaz/GIZ

PPP Stories in H2Uppp - Cooperation Agreement

Brazil – SAP and GIZ Cooperate on Digital Solutions for Green Hydrogen Certificates



“We’re excited to work with GIZ on this project, which will eventually allow certification data to be exchanged and evaluated along the value chain in a tamperproof, cost-efficient, and traceable manner,” Sabine Bendiek, chief people and operating officer and member of the Executive Board at SAP SE.



Applicant Company

SAP



Volume

> EUR 2,638,400, of which public contribution is 20%



About this PPP

This PPP aims to help Brazilian companies demonstrate that their hydrogen is truly green by evaluating and summarizing certification standards and testing digital solutions; this with the objective of validating general requirements and developing concepts for a green hydrogen certification support software for Brazil and Germany.

Implementation time: 34 months



Results and impacts of this PPP

Contribute significantly to developing the hydrogen economy in Brazil and LATAM region by creating the necessary proof points through reliable certification solutions.



PPP Stories in H2Uppp - Service Agreement

Chile: Solar NH3-Pool Chile



Applicant Company

Soventix



Volume

> EUR 300,000, of which
50% public contribution

“The collaboration with H2-Uppp has allowed us to contribute in relevant topics for the development of the green hydrogen industry in Antofagasta Region, such as the proposal for a Green Hydrogen Industrial Park in Mejillones. The support of GIZ and the explicit objectives of a collaborative PPP project opens doors and allows us to make a novel contribution to the development of the regional green H2 hub” Jorge Taboada, Executive Director at Soventix.



About this PPP

Design of a sustainable green hydrogen and ammonia production plant pool in the Antofagasta region based on an optimized regional infrastructure analysis, including a techno-economic and structural assessment.

Implementation time: 1 year.



Results and impacts of this PPP

Green hydrogen and ammonia production pools enhance resource efficiency and sustainability, and enable smaller players to participate in large-scale projects.



Mejillones Port Complex (@CPM S.A)

H2Uppp HUB team: Chile, Argentina and Uruguay

Javier Ortiz de Zuniga (Chile)
Jefe de Equipo H2Uppp



Ignacio Jofré (Chile)
Asesor Técnico



Jose Fuster (Chile)
Asesor Técnico



Gloria Cuadra Herrera (Chile)
Asesora Técnica



Maria Jose Lambert (Chile)
Asesora Técnica



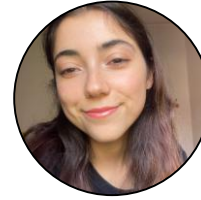
Gabriel Fuentes (Chile)
Asistente Técnico Junior



BACKSTOPPING
Cristian Fuentes (Chile)
Asesor en
Comunicaciones 4E



María José Cavieres (Chile)
Asistente Técnica Junior



International Hydrogen Ramp-Up Program (H2Uppp) HUB LAC

Javier Ortiz de Zuniga– Team Leader

francisco.ortiz@giz.de