



On behalf of:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany



Implemented by



Introduction: Business Opportunity Analyser

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Agora Energy Transition – Who we are

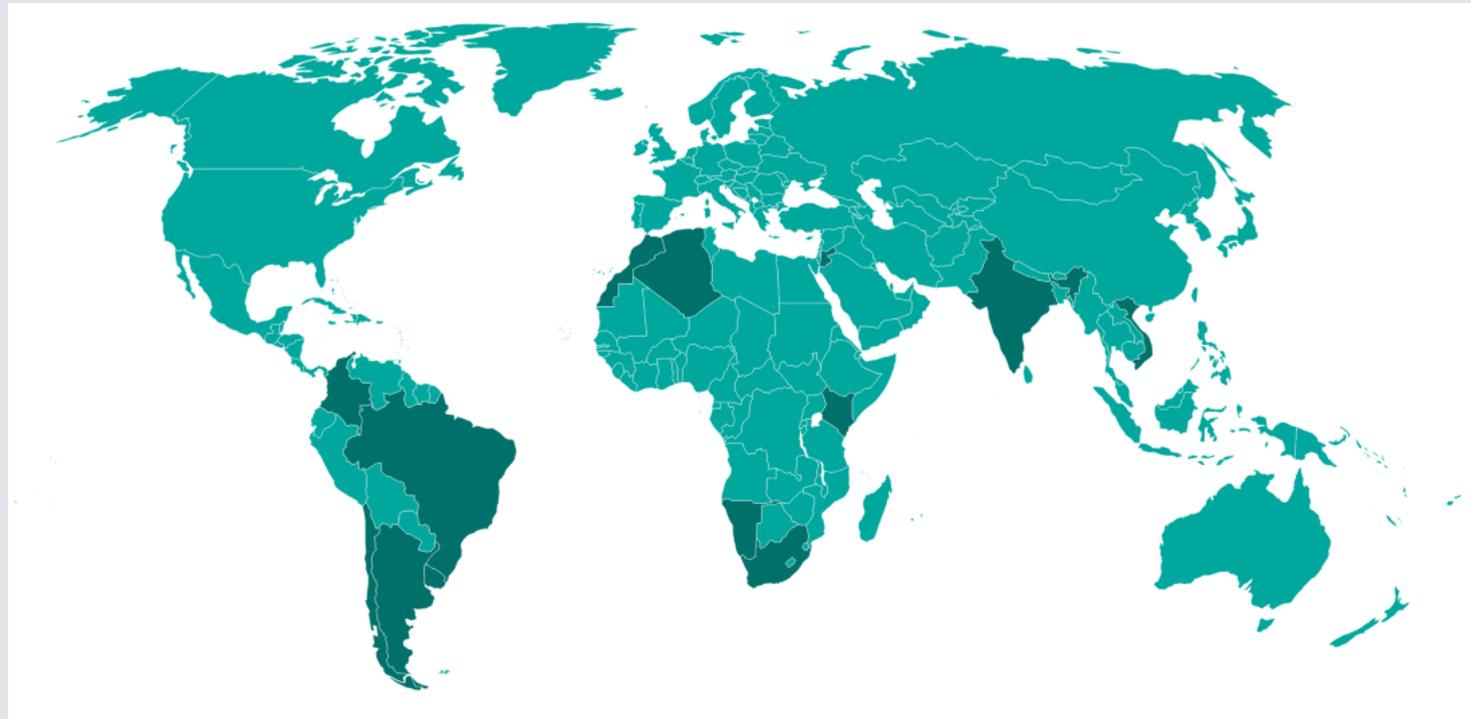
- **Think Tank and Policy Lab**
- **≈140 energy transition experts**
- **Independent** and non-partisan with diverse financing structure
- **Our vision:** a prosperous and **climate-neutral global economy** by 2050
- **Science-based solutions and policy advice** to deliver **clean power, heat and industries** – in Germany, Europe and around the globe
- **Programmes in ~20 countries**, with offices in Berlin, Brussels, Beijing and Bangkok



As a partner of the International PtX Hub, Agora is involved with projects in Morocco, South Africa and Argentina



PtX Hub projects as of May 2023



<https://ptx-hub.org/>; Legal disclaimer: This geographical map is for informational purposes only and does not constitute recognition of international boundaries or regions; GIZ makes no claims concerning the validity, accuracy or completeness of the maps nor assumes any liability resulting from the use of the information therein.

Background and Objectives



Hydrogen and PtX products are necessary to decarbonize specific applications, which cannot be electrified directly. Some countries will **need to import PtX products** due to their limited domestic RES potential.



Collaboration between a plethora of stakeholders, across geographies, governments and industries is needed to unlock this potential.



The BOA aims to assist potential export countries to understand their **competitive advantage** in global PtX markets at a pre-feasibility level.



While the BOA's objective is to serve as an analytical tool on PtX, it cannot **replace local knowledge** and it is therefore **flexible** enough to accommodate local data inputs

Stakeholder involvement has been vital during all phases of project development



Timeline of the past stakeholder events for BOA



Argentina Stakeholder Workshop
12 December 2022
Collaborative workshop with Argentinian local experts, policymakers, industry representatives for validating country specific data

Morocco Stakeholder Workshop
25 January 2023
Collaborative workshop with Moroccan local experts, policymakers, industry representatives for validating country specific data



South Africa Stakeholder Workshop
15 December 2022
Collaborative workshop with South African local experts, policymakers, industry representatives for validating country specific data

Expert Stakeholder Group Testing
05 May 2023
Stakeholders from partner organisations have received the beta version of the tool to test its various functionalities and give feedback.

Hydrogen – what will it cost, and what will we pay?



Price and cost of hydrogen, excluding cost of delivery/shipping

	Metric	Users	Use	Data sources
	Hydrogen price	Sellers and buyers	Market transactions	Commercial
	Realized project cost *	Project developers, investors	Making site-specific projects within regional context bankable **	Commercial, confidential

	Simple levelized cost of hydrogen	Policy-makers	High-level analyses at pre-feasibility level, start the discussion	Publicly accessible, traceable

Agora Energiewende and Agora Industry (2023), forthcoming

* Final electrolysis system CAPEX can be 20-50% higher, according to anecdotal evidence

** Including further cost determinants such as construction duration, financing structure, taxes, royalties, concession payments, supply chain risks, local content requirements. Actual projects will also consider income streams such as sales of by-products (electricity, oxygen, heat) and policy support instruments for CAPEX/OPEX.

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**Thank you for your
attention!**

Questions or comments? Feel free to contact me:

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