

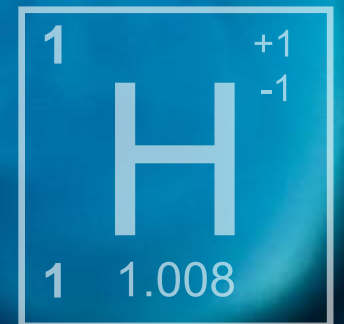


H2LAC INDEX 2023

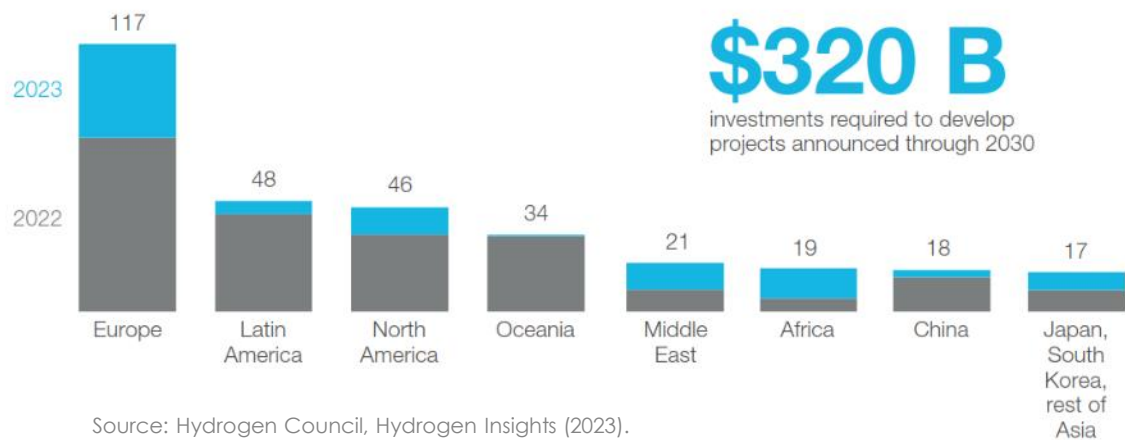
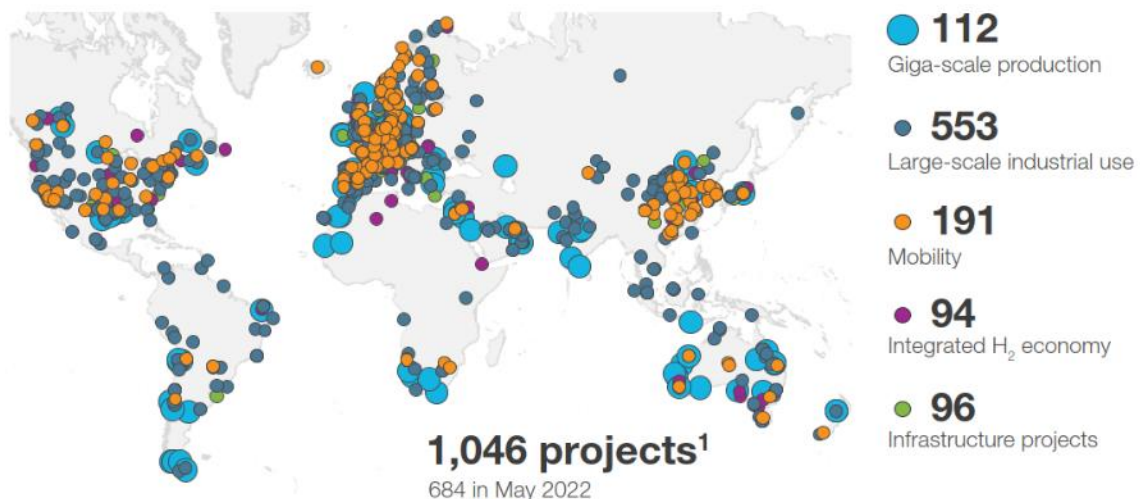
Results of the
3rd Hydrogen Economy Index
Latin America & The Caribbean

H2LAC
JUNE 13 - 15, 2023

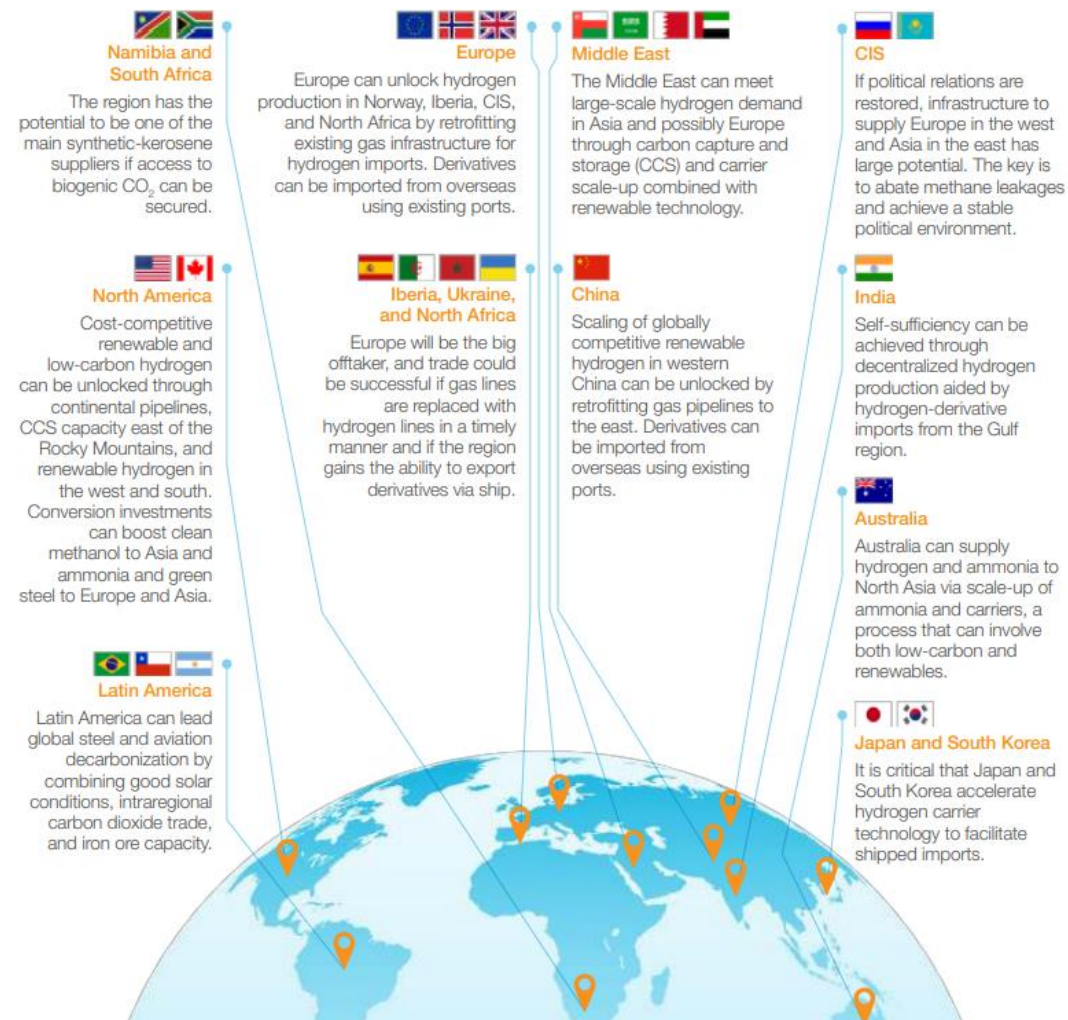
FAIRMONT COPACABANA
RIO DE JANEIRO, BRAZIL



2023 Hydrogen Council Insights: Latin America hits 2nd rank with \$48 B (20%) of announced global project investments



Source: Hydrogen Council, Hydrogen Insights (2023).

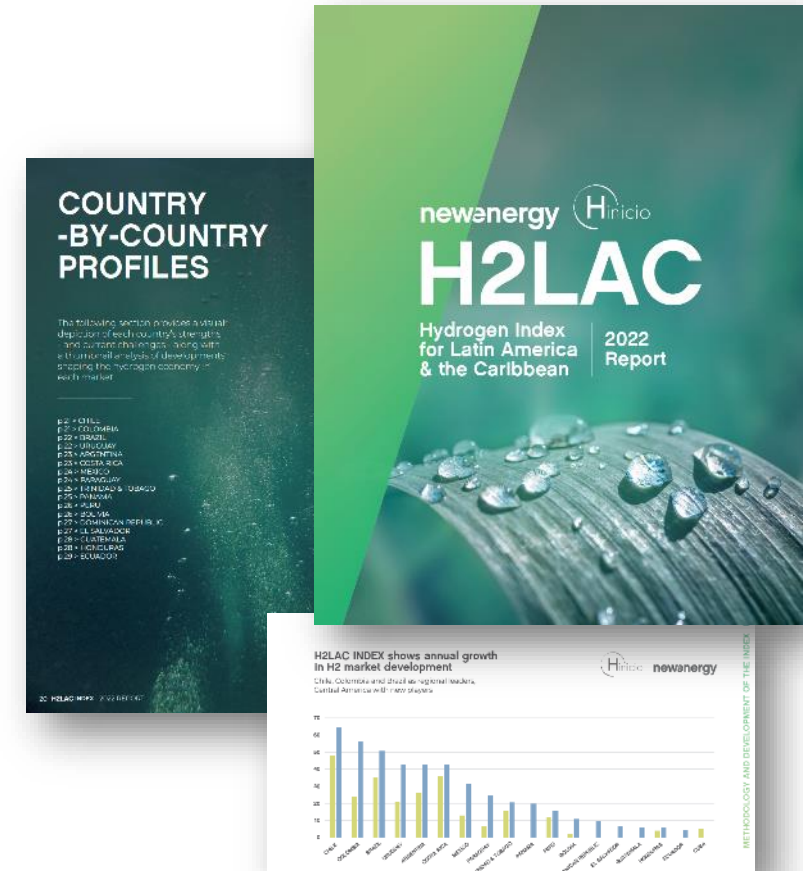


Source: Hydrogen Council, Global Hydrogen Flows (2022)

Since 2021 and for the 3rd time, **Hinicio and New Energy are monitoring LAC's progress** in the Renewable Hydrogen sector

H2LAC INDEX

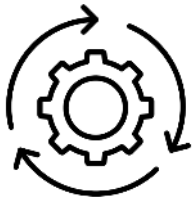
1. It develops a set of traceable, unified and quantifiable indicators that **allows to measure and to compare** the ongoing development of the hydrogen market in LAC.
2. It helps to identify and assess the **different variables that impact the development of the hydrogen sector in LAC**: public policies, regulation and incentives, projects in operation/under development, public and private initiatives, international partnerships, among others).
3. It **identifies the LAC leading countries** with regards to their H2 market development stage, reasons for success, alongside areas for further growth and improvement.
4. It builds structured information which **enables constructive discussions at a national and regional level to identify and recommend best practices** for further development.



H2LAC Index has a **methodological structure based on the evaluation of prioritized areas** through key stakeholders' surveys

1

Refinement and upgrade of H2LAC index methodology to version 3.0



2

Crafting a targeted survey design for optimal data collection



3

Implementation of survey distribution and data gathering



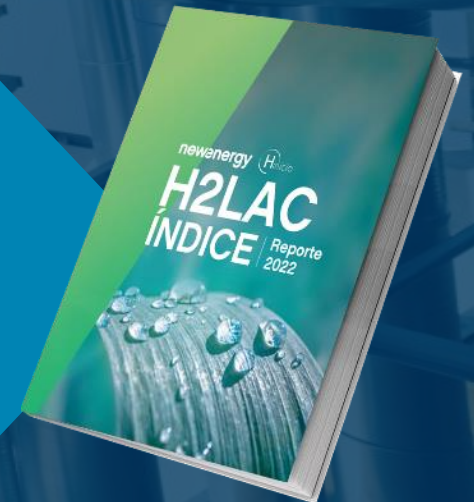
4

Assessing and processing the information. Filling the blanks.



5

Formal presentation of the H2LAC Index 2023 results



2023 H2LAC Index:

Measuring 5 key aspects of hydrogen sector development

1. National policies, incentives and regulation

Integration of hydrogen in national energy planning, decarbonization initiatives and e-mobility. Promotion of regulatory incentives, public policies and adoption of hydrogen-specific certification schemes or GO's.

2. Level of development of the H₂ ecosystem at national level

Availability of public documents highlighting opportunities for production and demand end-use of H₂ and derivatives. Funds for R+D, presence of business and/or industry associations and relevant hydrogen events.

3. Projects in Operation or under development

Number of operational or under-development low carbon hydrogen projects across different applications. Research and development projects are not considered in this category.

4. Sectors and application of renewable H₂ at national level

Presence of operational projects that demand renewable hydrogen for diverse applications, including transportation, energy, industry and exportation.

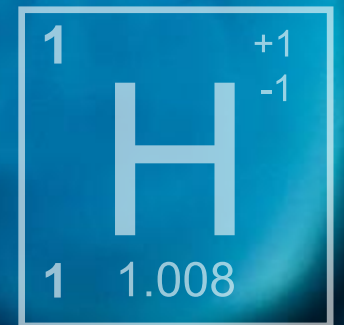
5. Level of international cooperation and H₂ export planning

Hydrogen export negotiations as well as international cooperation agreements in place framing the production, transportation, or use of H₂. Existing plans of the government to build national or regional PtX Hub.



newenergy

RESULTS 2023



Only 5 Countries were not part of the third version of the H2LAC 2023 Index: 95% of LAC GDP is represented.

Highlights

1. 18 countries that were approached responded to the call for participation.
2. Suriname and Bermuda are new participants in the third version of the H2LAC Index.
3. Only the top 16 countries are shown in this presentation.



18 Country responses


5 Countries with insufficient answers



Chile, Colombia, and Brazil retained their positions in the Top 3, with Colombia and Brazil closing the gap noticeably with Chile

2023 H2LAC Index Score

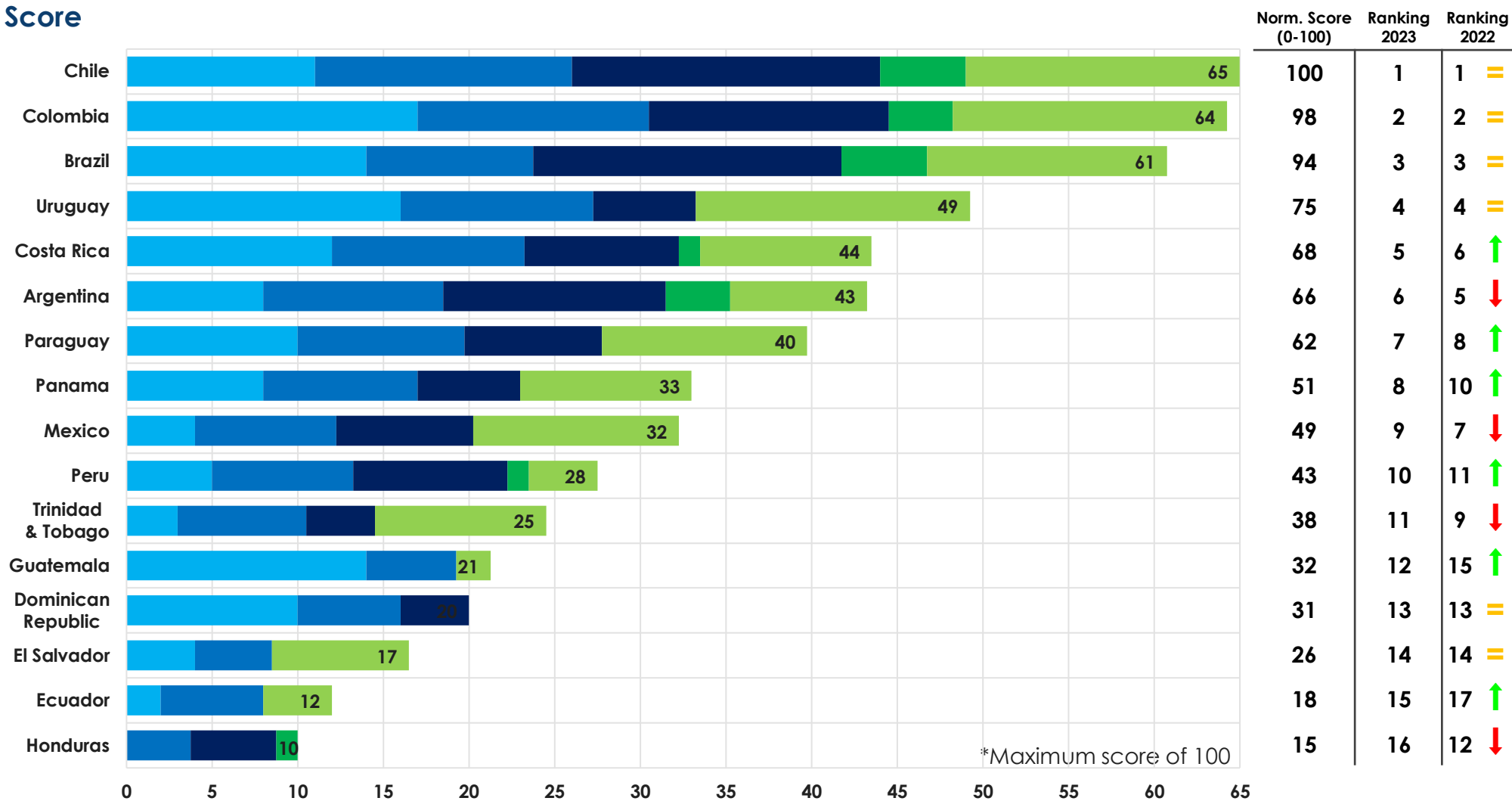
 National policies, incentives and regulation

 Level of development of the H₂ ecosystem at national level

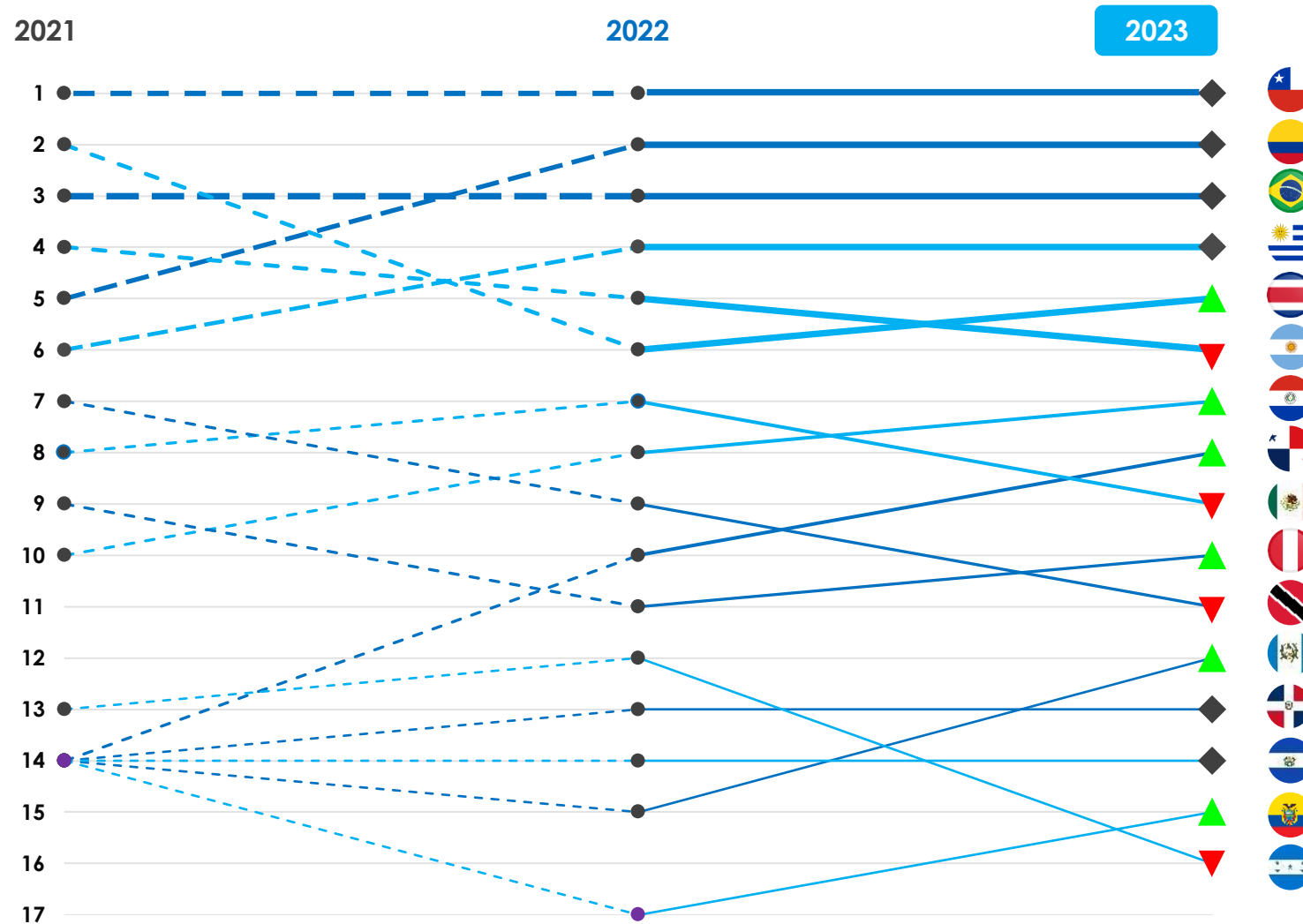
 Projects in operation or under development

 Sectors and application of renewable H₂ at national level

 Level of international cooperation and H₂ export planning



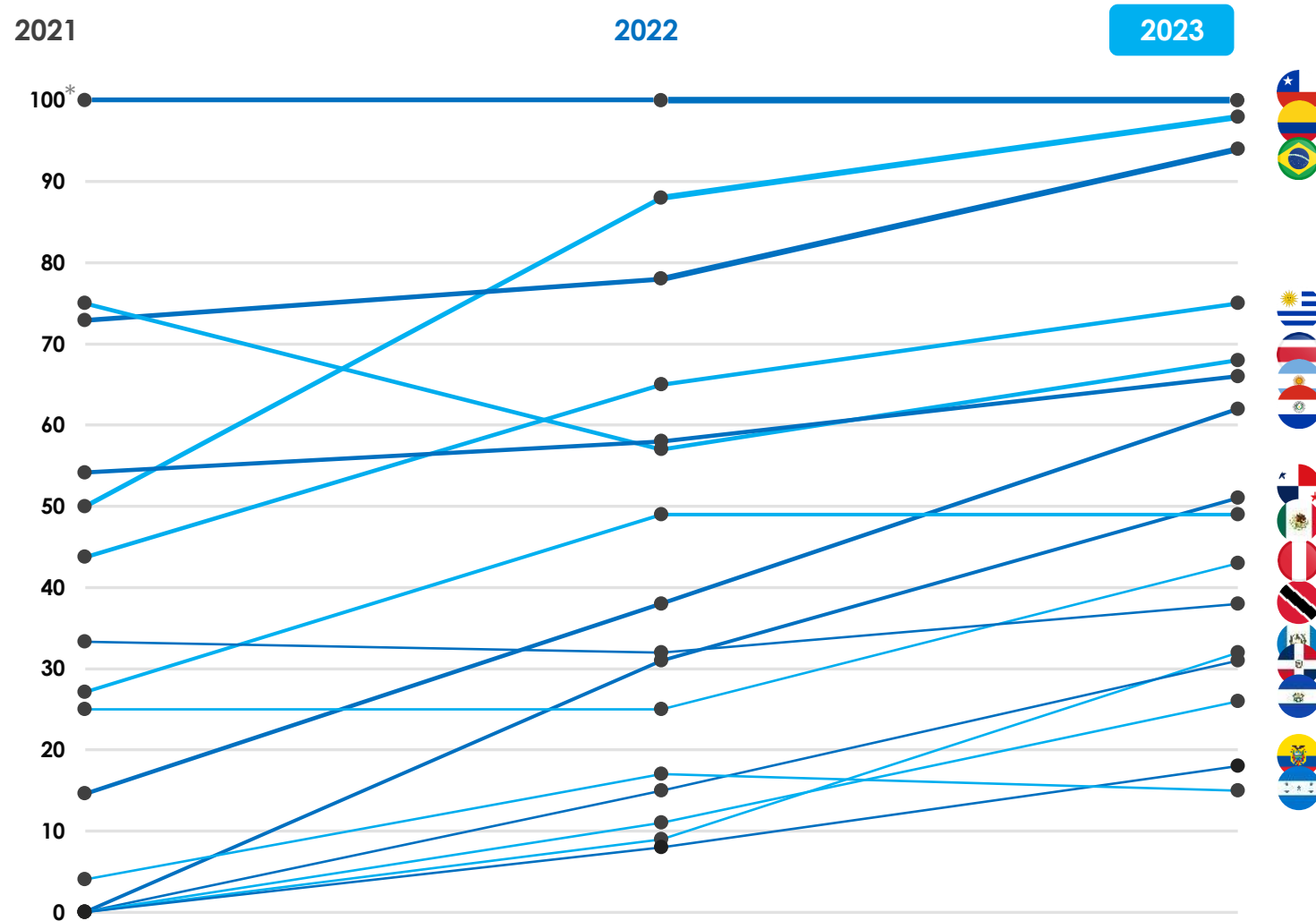
H2LAC Index Ranking Evolution 2021-2023



The **top 6 markets** remain on the top:

1. Chile
2. Colombia
3. Brazil
4. Uruguay
5. Costa Rica
6. Argentina

H2LAC Index Score Evolution 2021-2023

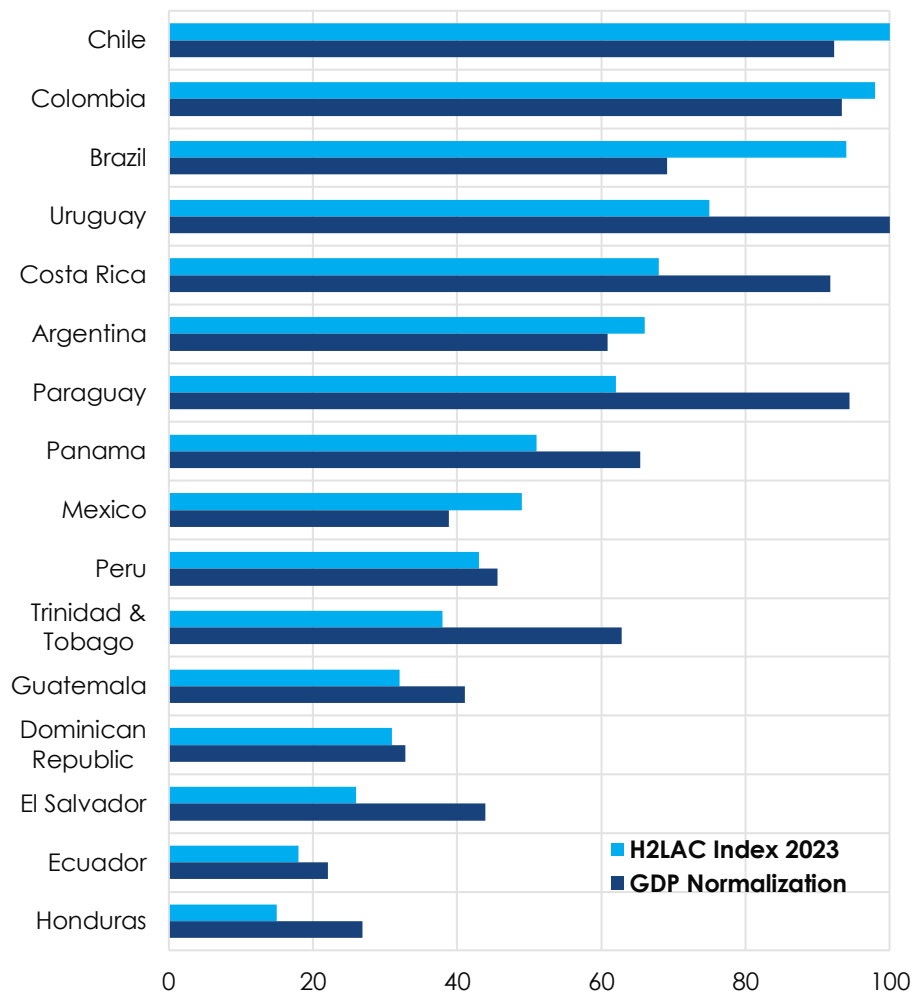


At this rate of progress, **Brazil could potentially rise to N°1 in 2024**

* Normalized Score (0-100)

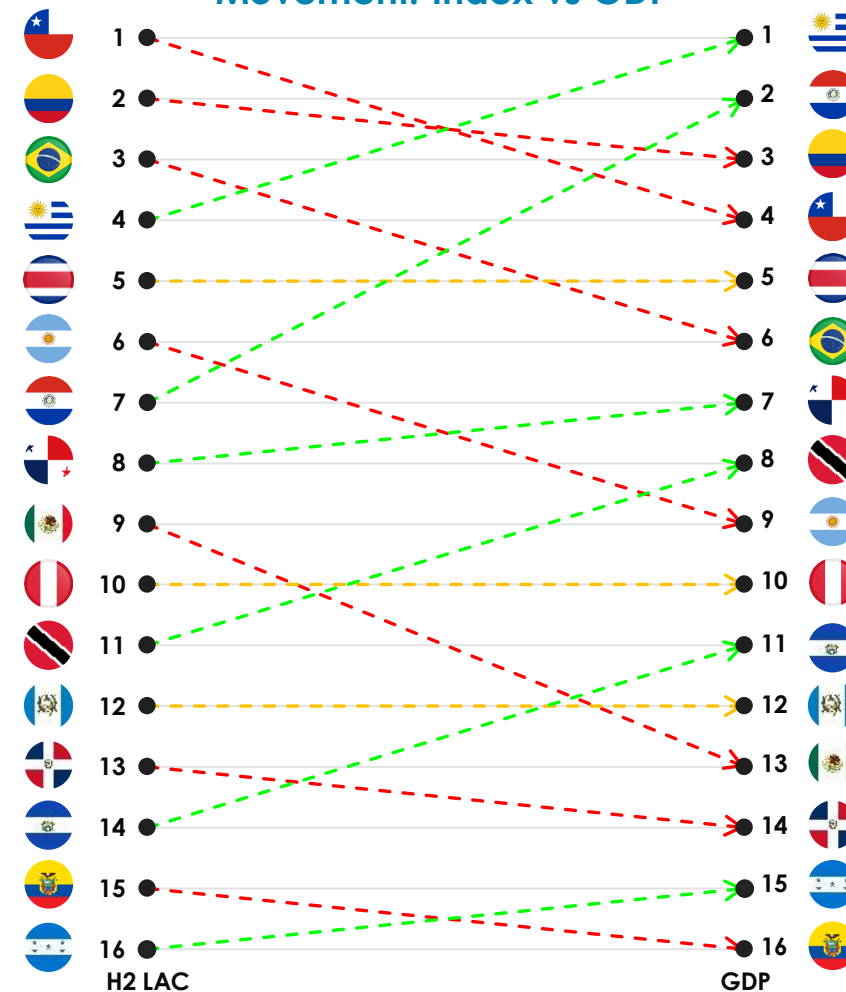
Normalized by GDP, Uruguay and Paraguay would ascend to 1st and 2nd place respectively. CO, CL CR and BR follow

2023 Normalized Score (0-100): Index vs GDP

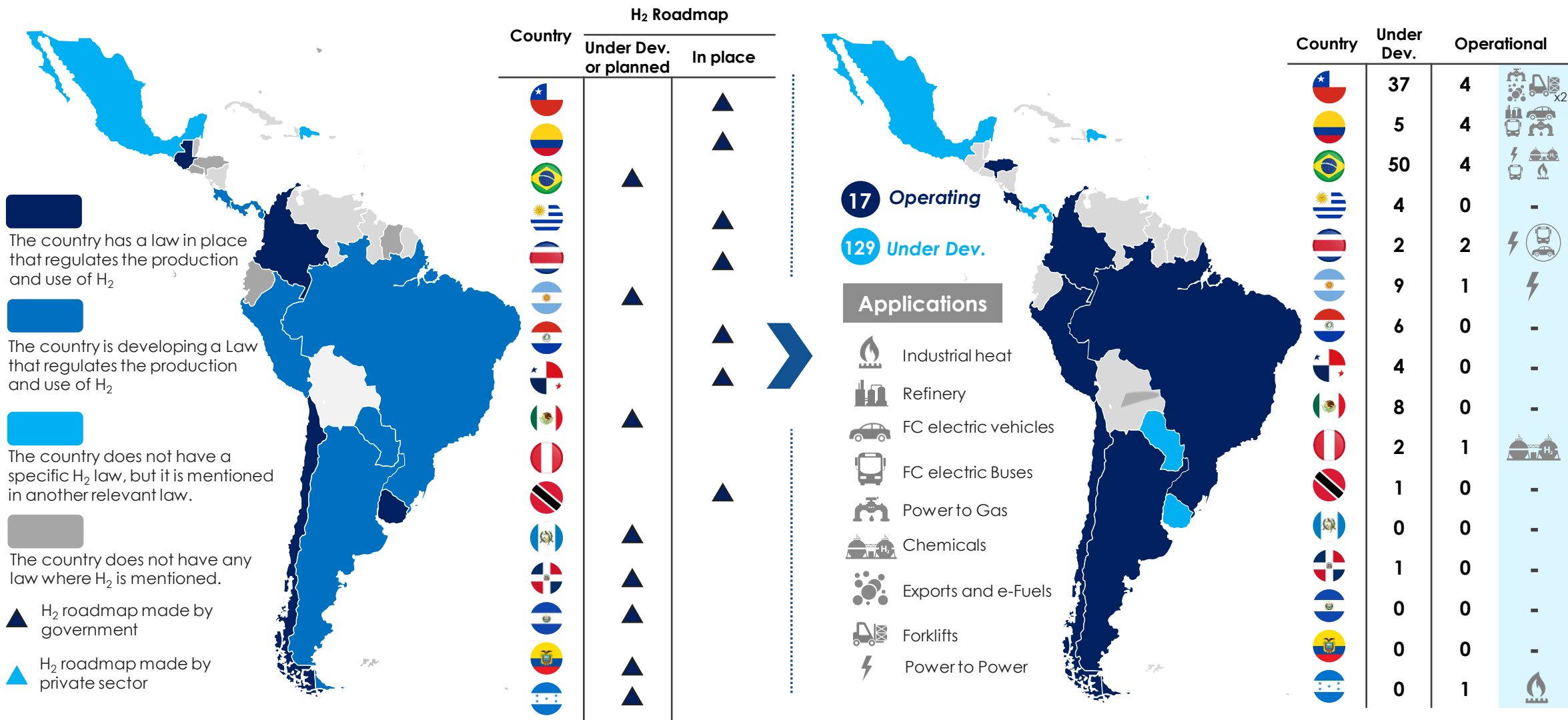


H2LAC		Norm GDP.		
Score	Rank	Score	Rank	
100	1	92	4	↓
98	2	93	3	↓
94	3	69	6	↓
75	4	100	1	↑
68	5	92	5	=
66	6	61	9	↓
62	7	94	2	↑
51	8	65	7	↑
49	9	39	13	↓
43	10	46	10	=
38	11	63	8	↑
32	12	41	12	=
31	13	33	14	↓
26	14	44	11	↑
18	15	22	16	↓
15	16	27	15	↑

Movement: Index vs GDP



Fact: Strategies are been published and Projects are been developed. But, Is LAC able to maintain the momentum needed to cross F.I.D?



Conclusions

Key findings of the H2LAC Index 2023



LAC can still play an **important role within the global context of the hydrogen economy**. Public-private partnerships **need to be accelerated in order to seize the opportunities that are emerging**.



Chile, Colombia, and Brazil are the primary markets in LAC that warrant close attention for project development. Based on the current pace and trends, **Brazil is expected to emerge as the most attractive market**. However, when evaluating the attractiveness of markets based on the H2Index normalized by GDP, Uruguay takes the lead, securing the top position.



Argentina, Paraguay, Costa Rica, and Panama are demonstrating advancements; however, **the deployment of additional projects is necessary to ascend to the top three positions**.



Almost all LAC country has either implemented or is actively working on a National Strategy/Roadmap. In order to maintain the momentum of developers and stimulate demand, governments should prioritize the development of political and economic mechanisms.



LAC experienced a remarkable 74% increase in H₂ projects, boasting nearly 150 projects in total. Brazil and Chile emerged as the dominant players, capturing a significant share of around 2/3. **Ceará distinguished itself by forging more than 20 MoUs for international cooperation**



YOUR KNOWLEDGE PARTNERS FOR SUSTAINABLE ENERGY PROJECTS AND STRATEGIES

Contact



Hans Kulenkampff



hans.kulenkampff@hinicio.com



www.hinicio.com



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A large, stylized blue letter 'H' is partially enclosed by a blue circular arc on its left side. The 'H' is composed of two vertical bars and a horizontal bar at the top.

Hinicio

Experts building
the hydrogen future
Now