

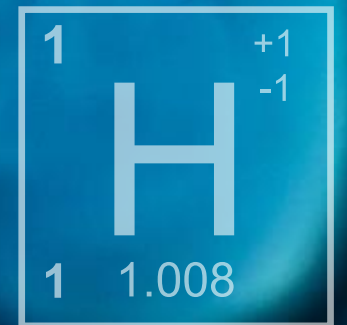


Impact of EU regulation on Green H2 exporters

Through RED2 (Revision) and
Delegated Acts

2022

BRUSSELS • PARIS • ROTTERDAM • WASHINGTON DC •
BOGOTA • MEXICO CITY • SANTIAGO • BEIJING



ABOUT HINICIO

STRATEGY CONSULTANTS IN ENERGY & SUSTAINABLE MOBILITY

Founded in 2006, **we are recognized as a European Leader in the hydrogen and fuel cells industry. Our vision** At Hinicio, **we see hydrogen as playing a central role in the future energy system to achieve climate objectives.**

It is **our mission** to advise our clients and support the **building of successful strategies, projects, and public policies**, leading and accelerating the transformation of the energy system globally. By doing so, we strive to be their preferred partner and attract best-in-class human capital.

We have offices in **Brussels, Paris, Rotterdam, Washington DC, Bogota, & Santiago**, and commercial representation in **Mexico and China.**



STRATEGY



INVESTMENT



PUBLIC POLICIES



PROJECTS
DEVELOPMENT





INTRODUCING MYSELF



Wouter VANHOUDT
Head of Global Bus Dev & Marketing

Master in Commercial Engineering
Business Informatics & Master of
Finance Vlerick Management
School.

Project Coordinator for European
Commission supported Standard
on Green H2 Certification.
Chair and Board of AIB Gas
Scheme Group.

Spokesperson Hydrogen Europe –
WG Industry

International experience, incl 1
year in China and 3 year in Middle
East.
16+ years work experience.
Belgian native. Trilingual: Dutch-
English-French. Based in Brussels

CEN CENELEC – JTC 6 liaison



Coordinator since 2014



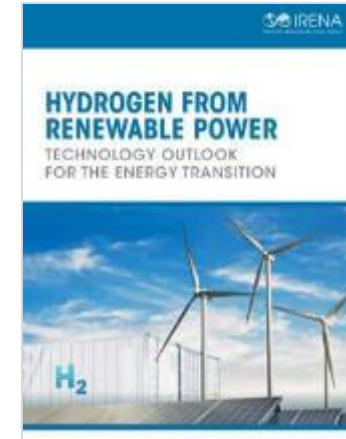
Chair Gas Scheme Group & Board Member



Spokesperson WG Industry



2020



2018



2017



2020



2018



2016

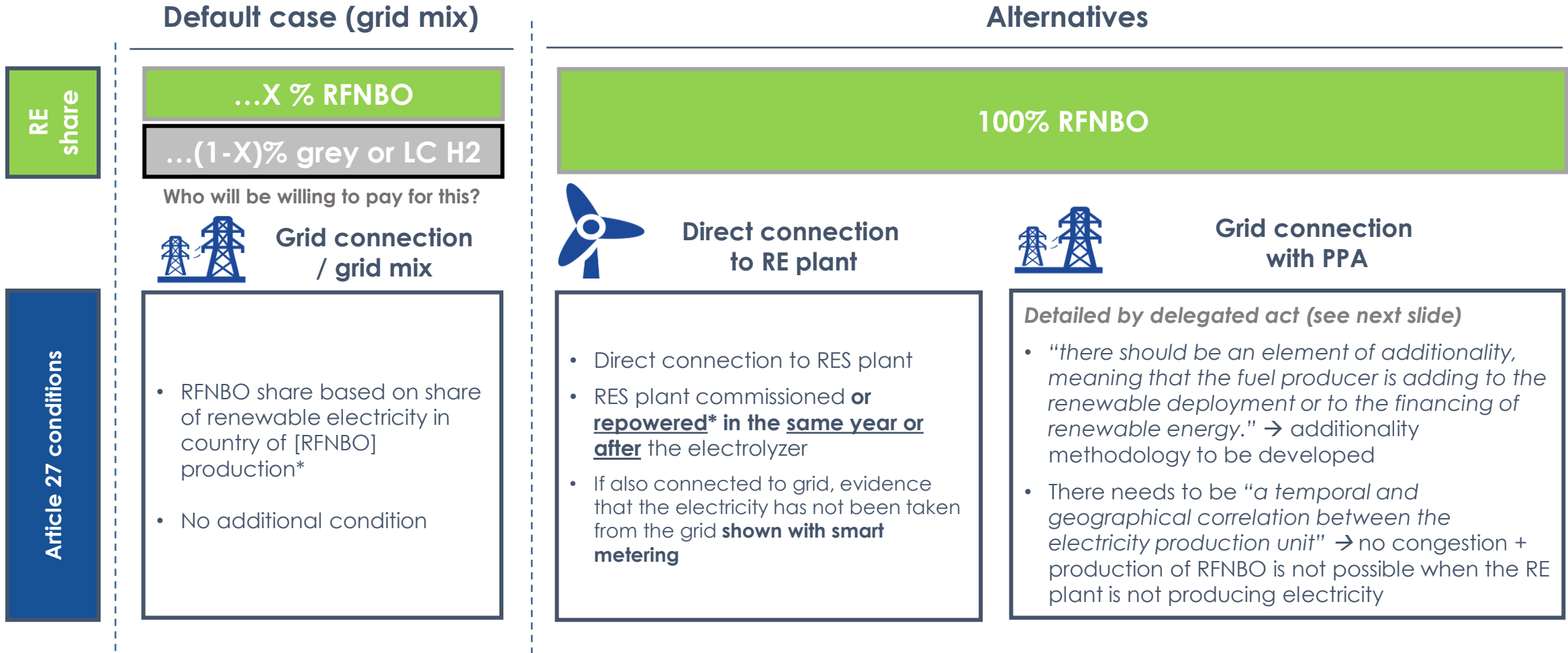
PARADIGM SHIFT: FROM MOLECULES TO PRODUCTS DEFINED BY SUSTAINABILITY

It is not just the H₂ molecule, but its environmental attributes that determine the market value

Market	Maritime fuel	Aviation fuel	Renewable transport fuel: RFNBO	Renewable feedstock for industry: RFNBO	Import	ETS: carbon intensive industry, built environment, heavy transport
Applicable molecules	NH ₃ , MeOH, e-diesel	e-kerosene	H ₂ , NH ₃ , MeOH, e-diesel	H ₂	Fertilizers (incl NH ₃)	Any product that falls under ETS
Product classification	low carbon fuel	e-fuel	REDII compliant, renewable transport fuel	REDIII compliant, renewable transport fuel	NH ₃	Any product that falls under ETS
Clients	Ship operators	Fuel suppliers	Transport fuel suppliers	Industrial H ₂ users (excl. conventional fuel production): - MeOH, NH ₃ producers - Glass manufacturers - Semiconductor manufacturers - Steel making - Biofuel Refining	Any conventional product off-taker	Any conventional product off-taker
Type of market	Incentivized voluntary market	Mandatory market	Mandatory market	Mandatory market	Incentivised voluntary market	Incentivized voluntary market
Applicable regulation	EUFuel Maritime, ETS	ReFuel aviation	(RED II Art. 25-30)	(RED III Art. 22a)	ETS and CBAM interplay	ETS
Client business model	Avoid Carbon Penalty	Compliance	Compliance	Compliance	Benefit from carbon penalties in domestic production of ammonia	Benefit from carbon penalties in ETS industries
Market size	50% of fuel for int'l shipping: - 2% in 2025 - 6% in 2030 - 13% in 2035 - ... - 75% in 2050	eKerosene sub-mandate: - 0,7% in 2030 - 5% in 2035 - 8% in 2040 - ... - 28% in 2050	28% of EU (inland) transport fuels by 2030, with sub-quota of 3,5% for RFNBO	50% of EU industrial H ₂ usage by 2030		
Product premium compared to fossil-based alternative						
Eligibility Criteria & Project Impact			Detailed discussion in upcoming slides			

In the EC Concept for RFNBO production, RFNBO should not compete with electricity consumption. Electrolysers are not required to contribute to grid flexibility either.

This concept is not necessarily design choice of exporting Countries

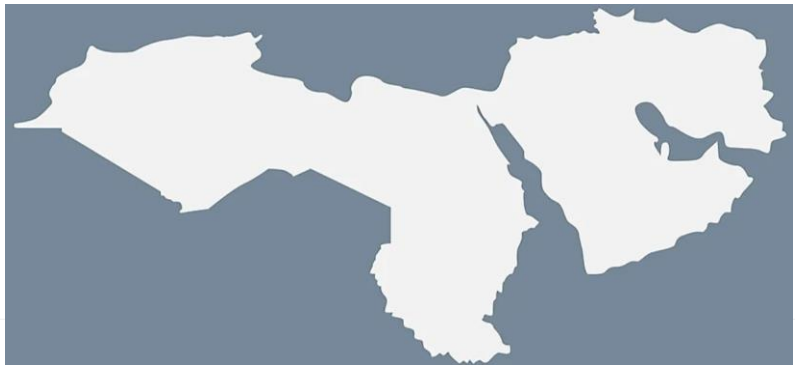
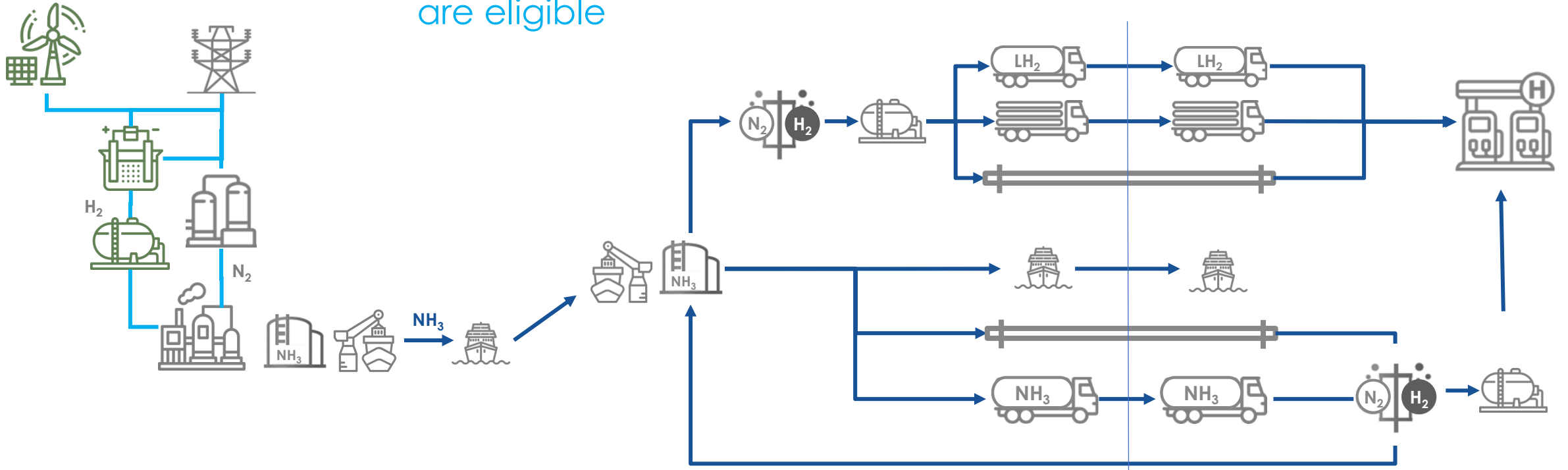


* Repowered RES plants are considered eligible when investments requirements more than 30% of the original investment



RED II DEFINES 70% GHG “WELL TO WHEEL” EMISSIONS SAVINGS NEEDED, WHICH NECESSITATES COLLABORATION OVER THE VALUE CHAIN

For MeOH production, only CO₂ sources with Carbon Tax are eligible





YOUR KNOWLEDGE PARTNERS FOR SUSTAINABLE ENERGY
PROJECTS AND STRATEGIES

Contact

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STRATEGY CONSULTANTS IN ENERGY & SUSTAINABLE MOBILITY

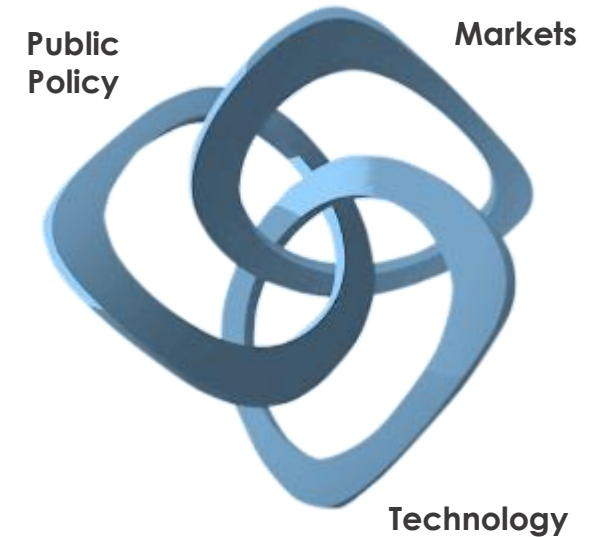
Founded in 2006, we are recognized as a **European Leader in the hydrogen and fuel cells industry.**

We provide support to public & private leaders for their development & investment issues.

We have offices in **Brussels, Paris, Rotterdam, Washington DC, Bogota, Santiago** and direct business representation **Mexico City & Beijing.**



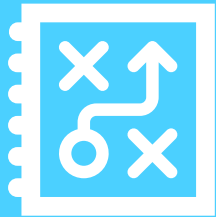
MULTIDISCIPLINARY APPROACH



MULTIDISCIPLINARY TEAM

Engineers, economist and policy experts in transportation, energy and gas industry from 12 different countries.

OUR CONSULTING SERVICES



STRATEGIC ADVICE

- Go-to-market & entry strategies
- Market studies
- Roadmaps
- Strategic alliances
- Value chain analysis.
- Alliances & competition



M&A AND INVESTMENT SUPPORT

- Merge & Acquisitions
- Investment strategies
- Strategic due diligence
- Technical due diligence
- Market due diligence
- Business plans
- Public funding



POLICY AND REGULATORY SUPPORT

- Economic studies
- Impact analysis ex-ante & ex-post
- Analysis of regulatory frameworks
- Workshops & Trainings



PROJECT DEVELOPMENT ASSISTANCE

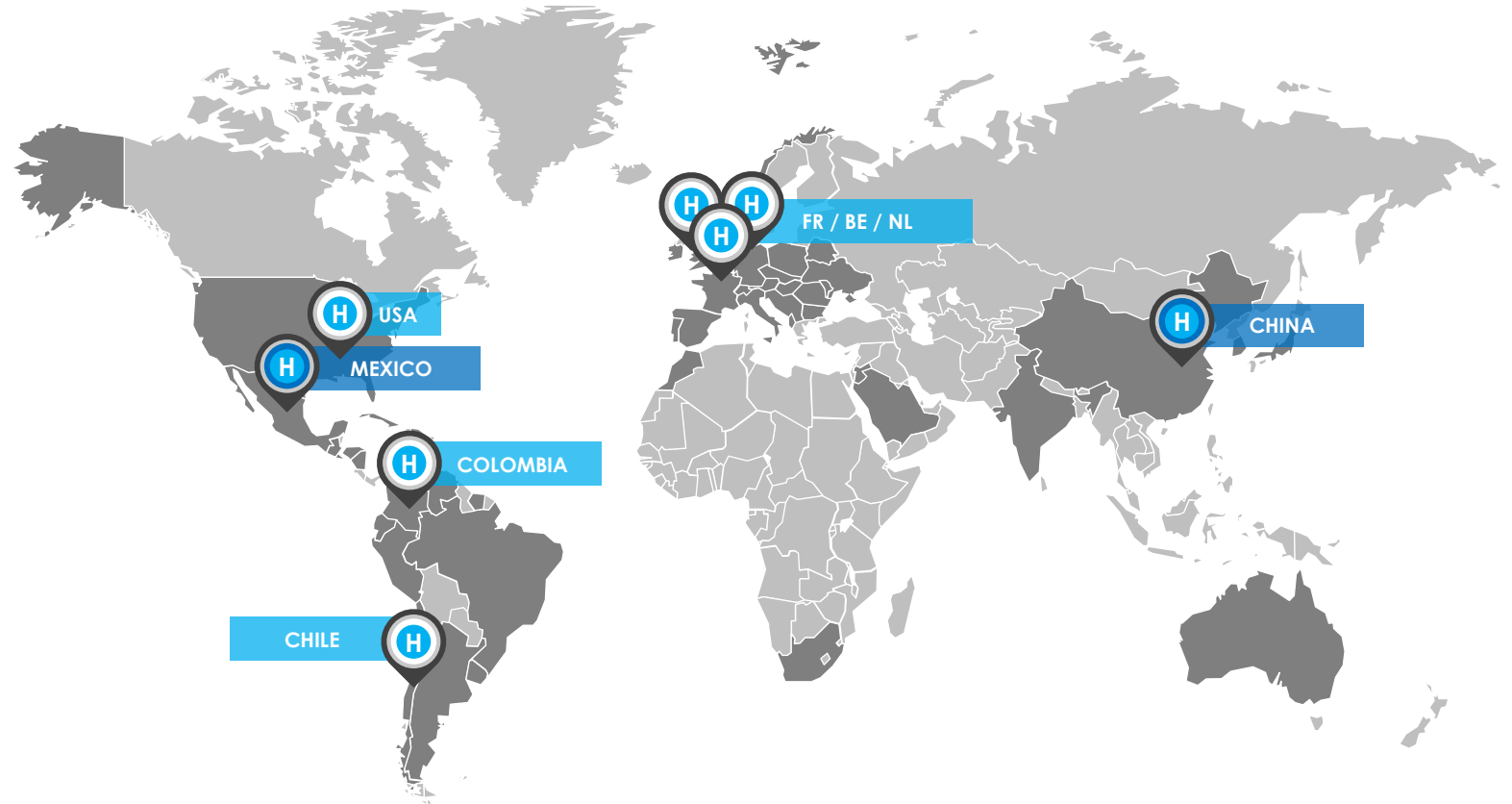
- Techno-economic (pre) feasibility studies
- Business case analysis
- Project finance
- Consortium support & management
- PMO

A **HIGH VALUE**
BOUTIQUE FIRM WITH
A **GLOBAL**
REACH:

HINICIO is a consulting firm with a **strong competence center on hydrogen since 2006.**

Active in Europe, the Americas and Asia, with a 360° approach in strategy, technology, policy and markets.

+450 studies and projects in more than 25 countries



Hinicio offices



Hinicio projects and studies



Hinicio commercial agreements

THEY WORK WITH US

TRUSTED BY INDUSTRY LEADERS



gasurthe



Nouryon



McPhy



nel



RWE



AsahiKASEI



ALSTOM



RECOGNISED EXPERIENCE IN HYDROGEN & FUEL CELLS



- We are one of the **top 5 Consulting firms specialized in hydrogen in the world.**
- We are the unique pure player in Latam
- **More than 200 project references in the four continents speaks for ourselves.**

INDEPENDANCE, OBJECTIVITY AND RIGOR



- **Our shareholding is 100% private and independent.**
- Our customers value **our objectivity compared to our peers, and our rigorous analysis** which leads to **uncompromised results.**

HIGHLY SPECIALIZED, BUT INTERDISCIPLINARY AND DIVERSE TEAM



- **Mix of engineers, economists, communication experts and lawyers**
- 100% of our consultants have **minimum 1 Master Degree**
- **12 different nationalities,**

ROBUST RELATIONSHIPS WITH DEVELOPMENT BANKS AND INTERNATIONAL ORGANIZATIONS



We have a long history working several times with international organizations such as the **the World Bank, UNDP, European Commission, FCH-JU, GIZ, IDB, IRENA, SECO, CAF...**

360° UNDERSTANDING OF THE ENERGY AND TRANSPORT SECTOR



We have worked with public and private institutions, which allow us to have a **complete and unbiased vision.** Besides, our background gives us access to a **privileged stakeholders network in the entire value chain.**

PROVEN TECHNO-ECONOMIC MODELLING CAPABILITIES



We are internationally recognized for the development of **sophisticated techno-economic and environmental models** for projects, pilots, demonstrations, road-mappings, and our capacity for national scenario planning.