

HINICIO I REGULATION & CERTIFICATION SERVICES



Are you aiming at understanding the regulation of target markets and to ensure your product's eligibility and thus its off-take?

WE HELP YOU TO UNDERSTAND TARGET MARKETS' REGULATION AND MAKE IT PART OF YOUR PROJECT'S DESIGN AND BUSINESS **CASE OPTIMIZATION**

Every project will rely on certification to capture the premium value of its product

- Non-certified low/zero-carbon products may face difficulties to find off-takers willing to pay premium-prices
- The target market's regulation and certification requirements should be integrated early in a plant's design to avoid future regulation compliance issues.



Regulation (in force or proposed)	Driver for certification
RED II and RED III	Compliance with RFNBO targets and product eligibility criteria in transport and industry
Taxonomy	Compliance w/ GHG intensity limit for access to green finance
ReFuelEU Aviation	Compliance w/ obligations on RES & share of RFNBOs
FuelEU Maritime	Compliance w/ fuel mix GHG intensity reduction obligations
EU ETS extension to Maritime	Inclusion of maritime shipping fuels (emissions) under EU ETS
EU ETS – CBAM	Compliance with products' emission intensity thresholds defined by CBAM (includes ammonia and fertilizers, among others)

A molecule, e.g. renewable Ammonia (NH3), has different potential premium target markets, depending on its end use and final application, among others:

- As industrial feedstock, driven by RED III
- As maritime fuel, driven by EUFuel maritime Directive



HINICIO supports you to:



Deeply understand the regulatory requirements of your product's target markets



Ensure compliance of your plant with the defined target market's regulation and product by



Optimizing the techno-economics of your project while achieving compliance with regulation







Regulatory framework and requirements

REDII, FuelEU maritime, ReFuelEU Aviation, EU Taxonomy, CBAM, ..., ...



Techno-economic optimization of your PtX plant design considering specific regulation criteria



We adopt a 3-step methodology to secure off-takers willingness to pay for your premium products when developing export projects to foreign markets



1. Understand the different potential offtake markets in EU and other import geographies (Japan, South Corea, Singapore) and their product elegibility criteria



2. Ensure that specifications of Power-to-X plant design, input sourcing and output distribution meets eligibility criteria, before going into detailed engineering



3. Elaborate Certification Strategy and conduct a Pre-Certification Assessment offered by HINICIO in collaboration with validated Certification Schemes and Auditors





Project
optimization and
Pre-Certification

Hinicio has developed a **five-step methodology** to comprehensively improve regulatory compliance and certification for PtX project developers

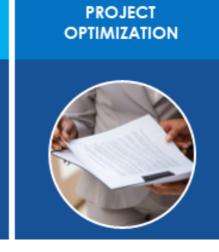




STEP 2:

REGULATION

COMPLIANCE



STEP 3:



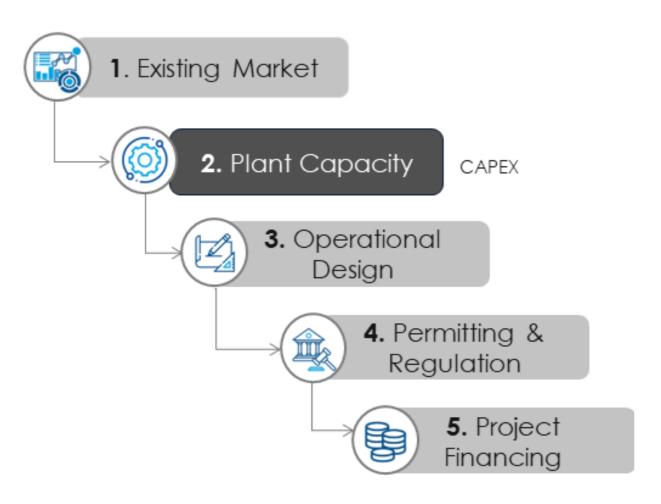


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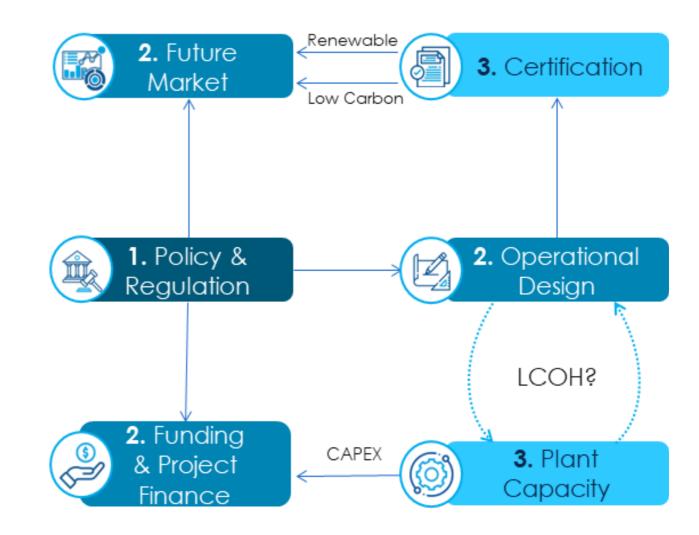
POWER-TO-X PROJECTS ARE DRIVEN BY POLICY & REGULATION

Hinicio leads project development by strategically understanding policy and regulation, and making certification part of market positioning, operational design, and financial performance.

Business As Usual: Capital Driven, Few Unknown, Incremental Approach



Power to X: Policy Driven, Several Unknown, Iterative Approach



Hinicio S.A. // www.hinicio.com

OUR SERVICE

PROPOSAL

Business Opportunity Identification

Regulation Compliance



Understand the regulation framework to take the right decisions

Business Optimization & Scope Definition

Project Optimization



Challenge the design and avoid further iterations Budget Approval

Pre – Certification (Certification Pilot)





Pre-certify your project to de-risk final investment decision

Project Maturity

COD

Implementation

Project Management Consulting



Commissioning & Start-up

Certification

by



Access to premium prices

We assist our clients in answering questions such as:

- Which Market will you serve?
- What are the sustainability criteria the selected market defines?
- How do sustainability criteria and regulation affect your project design?
- Do you have the right (biomass/biogas/RE PPA/CO2) feedstock available?
- What's your scale-up strategy?
 Have you optimized the system operation?
- Is technology of different vendors interchangeable?

HINICIO'S PROJECT DEVELOPMENT ASSISTANCE APPROACH IS USED WORLDWIDE IN POWER-TO-X

+700 studies and projects in more than 35 countries





We also advise policy makers and multilateral entities in H2 regulation and certification issues

Hinicio supports Project Developers and Governments in designing their own, best fitting certification strategy

Regulation development

- Support in drafting decrees and other regulatory instruments related to H2
- Advise on H regulation and legislation
- Analysis of regulatory impacts on Power-to-X projects

Certification system development

- Design, development and governance of a scheme:
 - ✓ Support of Governmental Entities and Technical Working Groups by trainings on Certification
 - ✓ Establishment of strategic
 Dialogues between policy makers
 and Scheme Owners
 - ✓ Design of key features considering different production pathways and product attributes



We support several actors building their own certification schemes

2021



Design and piloting of **Ammonia Certification** Scheme for the EU

2022



Methodology Document for the AEA's Ammonia Certification Scheme 2022



Design and piloting of **Ammonia Certification** Scheme for the US

2022



Support with Clean Hydrogen Production Qualification and Definition. Carbon Intensity calculation guideline

2023



Guidelines on Green Hydrogen Certification in LAC

diary

Hinicio collaborated within the first green hydrogen certification in Latin America White Martins produz primeiro hidrogênio verde certificado da América do Sul em Pernambuco



Empresa vai fornecer 156 toneladas de hidrogênio verde por ano para o mercado estadual; eletrólise utilizará energia solar

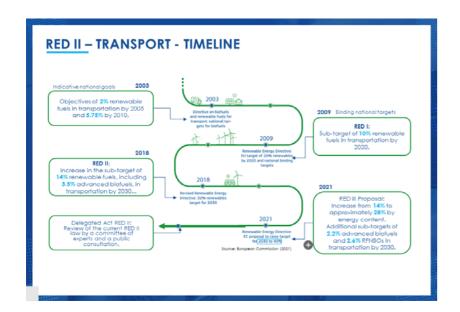




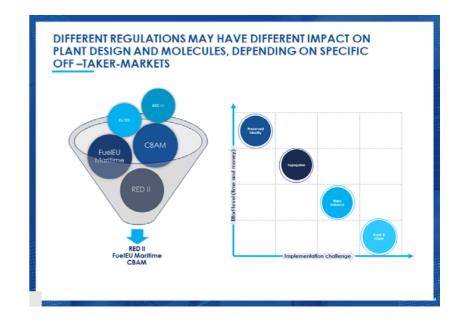
At Hinicio, we are happy to have assisted White Martins throughout their #hydrogen life cycle determination by developing the Carbon Footprint Study according to ISO 14067. We applaud their #dedication to #sustainability and their contributions to a more environmentally-friendly future, and we are excited to see the positive impact of this achievement in the #decarbonization #strategies for the region.

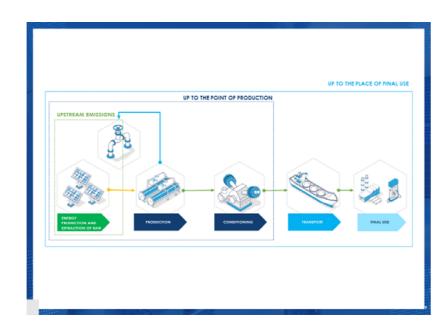
SOME EXAMPLES OF OUR DELIVERABLES

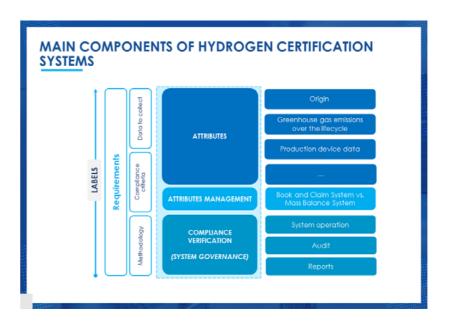
WHAT COULD YOU EXPECT FROM US













WHY TO WORK WITH US

With over 700 projects in 35 countries, our expert team advises governments, companies, and international organizations across Europe, Asia, Africa, the Middle East, and the Americas on corporate strategies, public policies, investment decisions, and executing studies and projects of high technological and economic complexity.



WHO WE ARE

Hinicio is a leading technical and strategic consultancy specializing in hydrogen and its derivatives, sustainable mobility, and industry decarbonization.

CONTACT US



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HinicioSA