

Why care about regulation and certification in early project development stages?

HINICIO | 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.

THE CHALLENGE:

WHICH REGULATION AND CERTIFICATION DO I NEED TO CONSIDER FOR MY PROJECT?



| 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 EU Fuel maritime Directive



HINICIO supports you to:



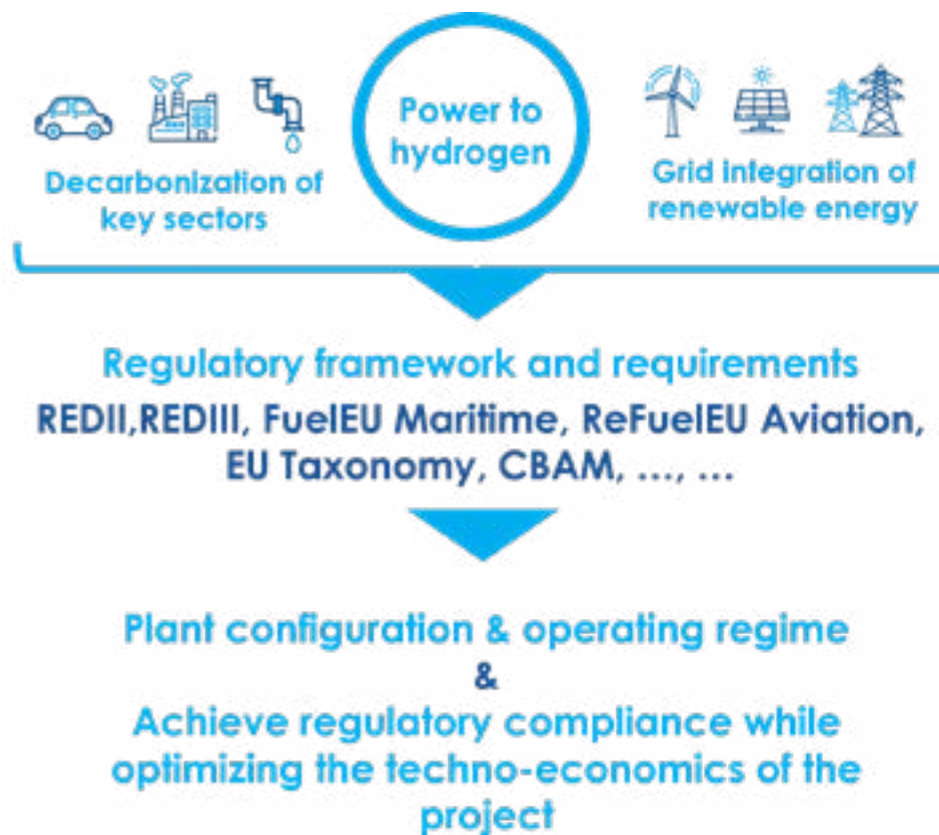
Deeply understand the regulatory requirements of your product's target markets



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



PROPOSAL



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 what are the EU off-taker markets and what product eligibility criteria are relevant for these



2. Ensure that specifications of H2 production, input sourcing and output distribution meets eligibility criteria, before going into detailed engineering



3. Elaborate Certification Strategy



Project optimization and Pre-Certification

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

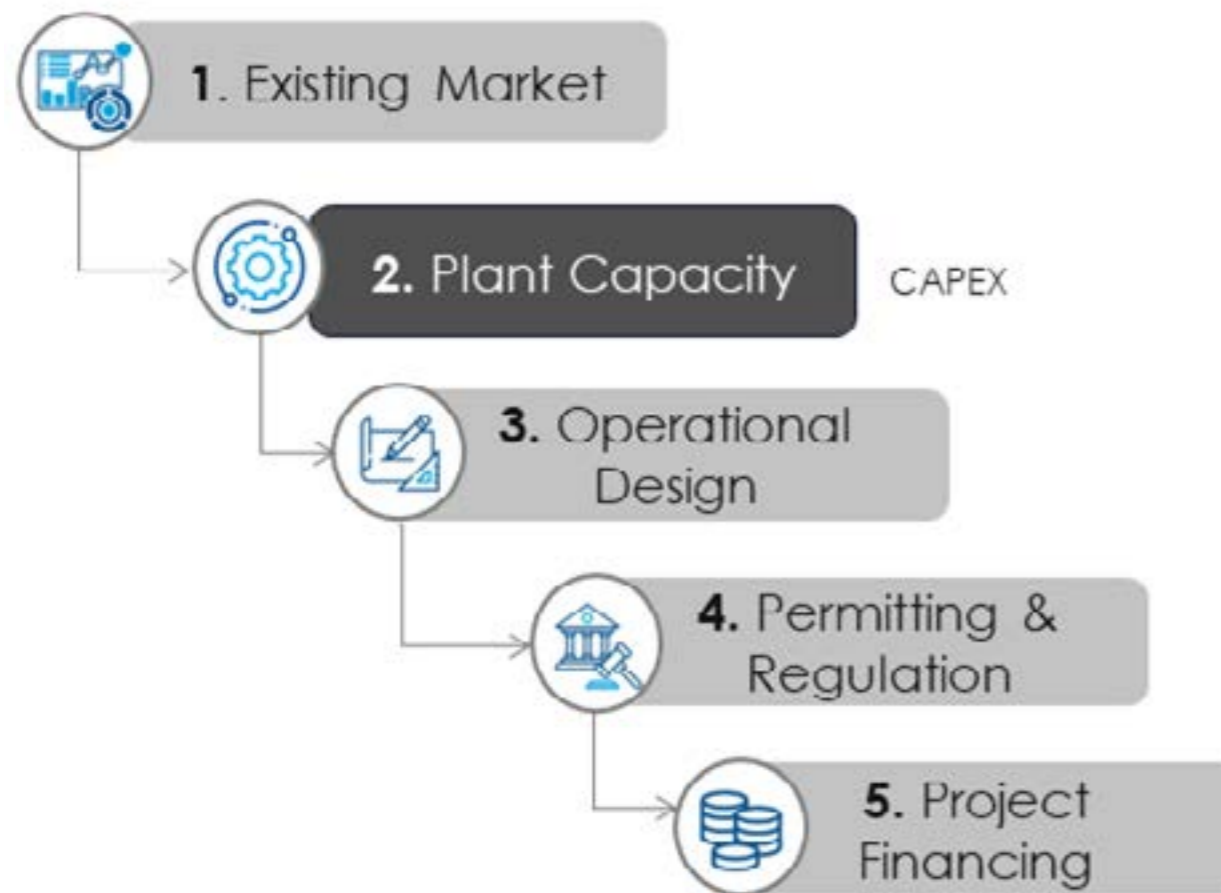


POWER-TO-X PROJECTS ARE DRIVEN BY POLICY & REGULATION

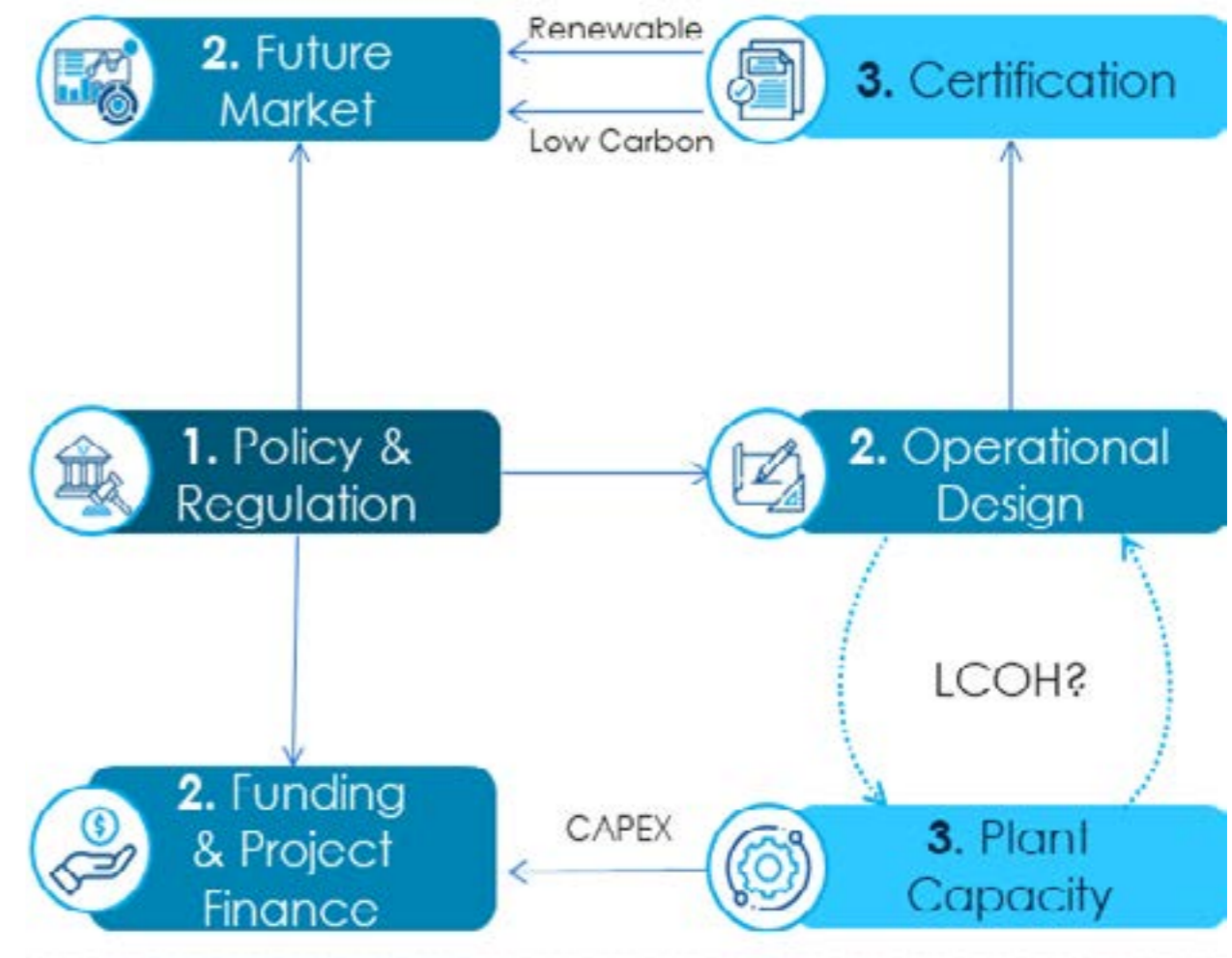
Hinicio leads project development by strategically understanding policy and regulation, and making certification part of market positioning, operational design, and financial performance.



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



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



PROPOSAL



We assist our clients in answering questions such as:

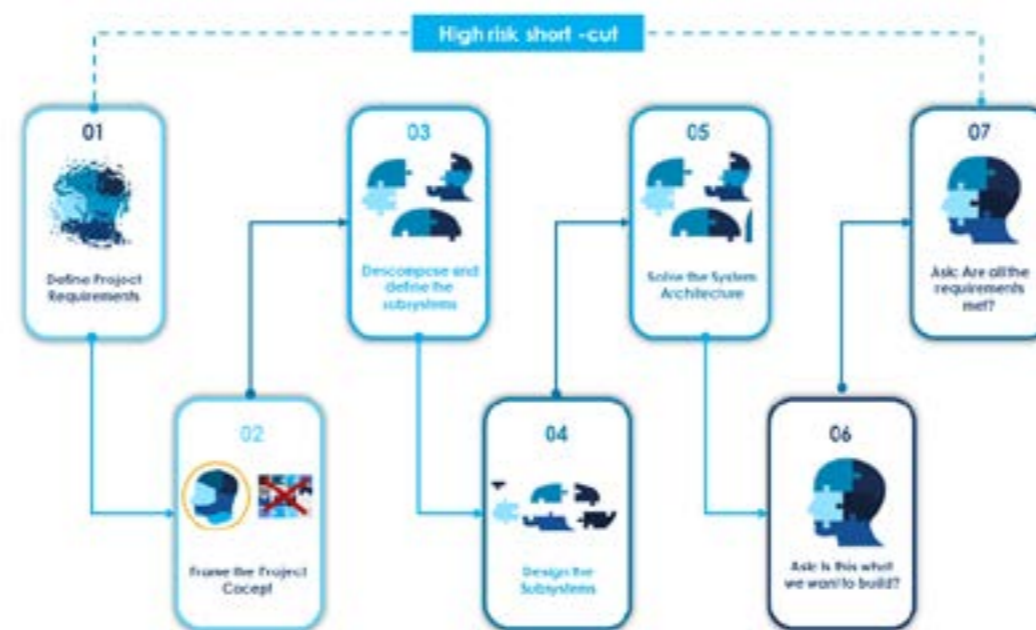
- Which Market will you serve?
- What are the sustainability criteria the selected market defines?
- How do sustainability criteria and regulation affect your project design?
- Do you have the right (biomass/biogas/RE PPA/CO2) feedstock available?
- What's your scale-up strategy?
- Have you optimized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



PROJECT OPTIMIZATION



- **Problem Statement:** a multivariable, time-constrained challenge, applied to a first-of-a-kind System of Systems (that we all call Power-to-X)



- **Value Statement:** “Systems engineering aims to ensure the pieces work together to achieve the objectives of the whole”.

HOW WE DO IT

HINICIO demand & market opportunity analyses

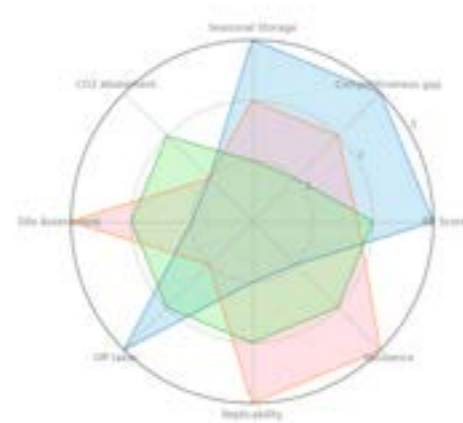


HINICIO Regulatory Compliance



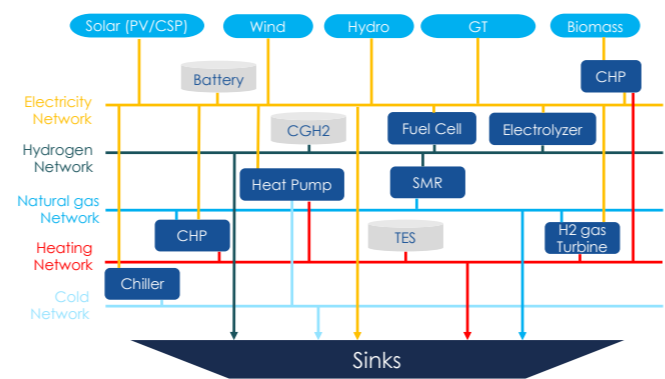
HINICIO Project optimization for Regulatory Compliance

Systems Engineering can fill the gaps that a traditional approach is not capable of



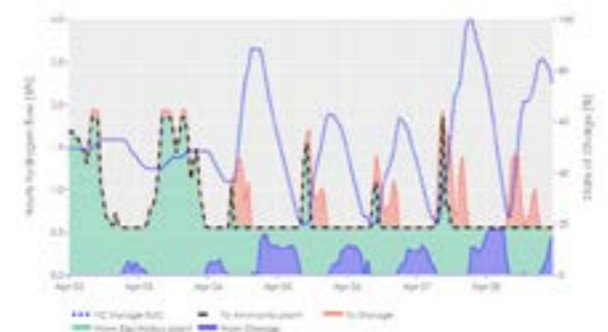
Concept Screening

- What are my opportunities and off-takers?
- What are the red-flags of my project?



Prefeasibility

- What is the optimum configuration?
- What is the best business case of my project?



Feasibility

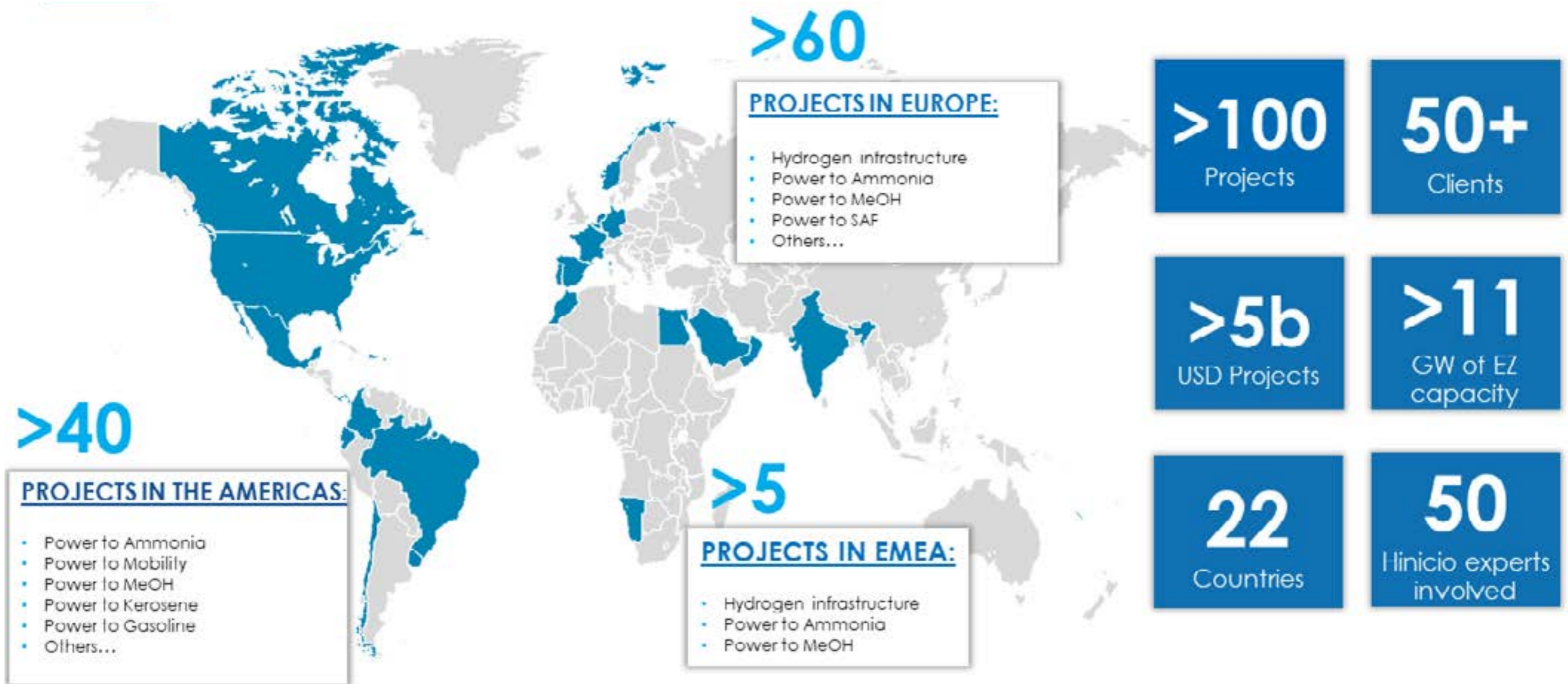
- What is the TIC Class IV estimate for?
- What is the required equipment list?



Specification

- What is the TIC Class III estimate?
- What is the optimal contracting strategy?

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



OUR SUPPORT IN PUBLIC POLICIES



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

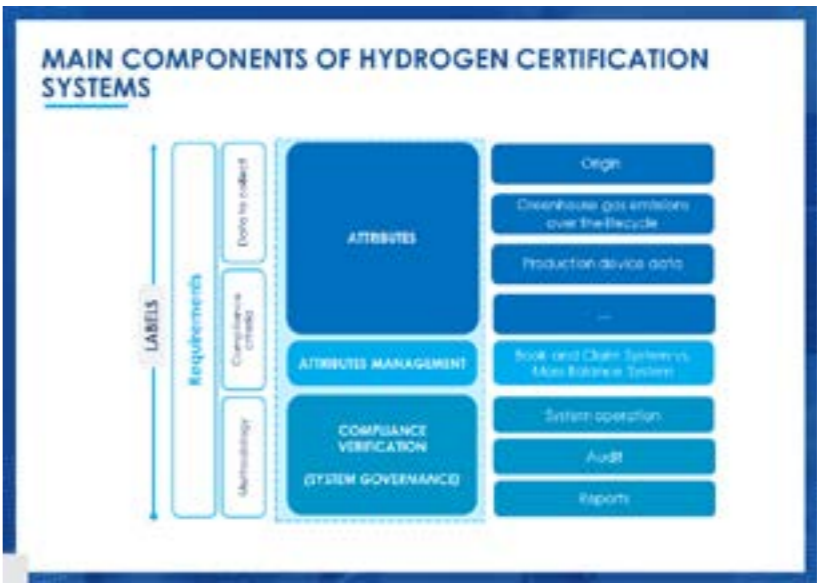
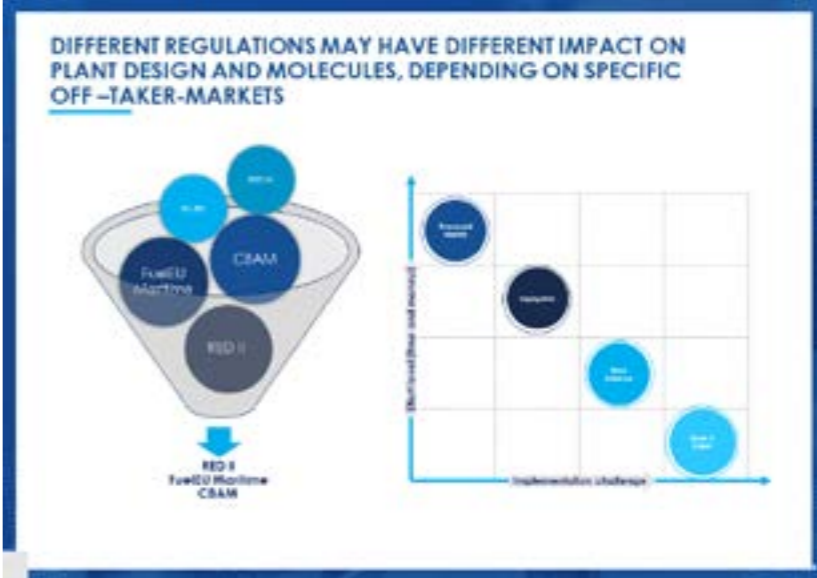
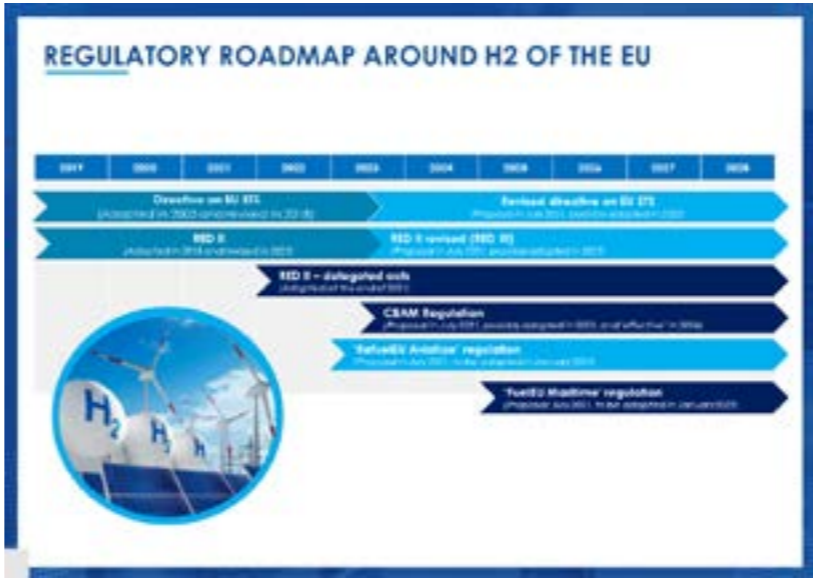
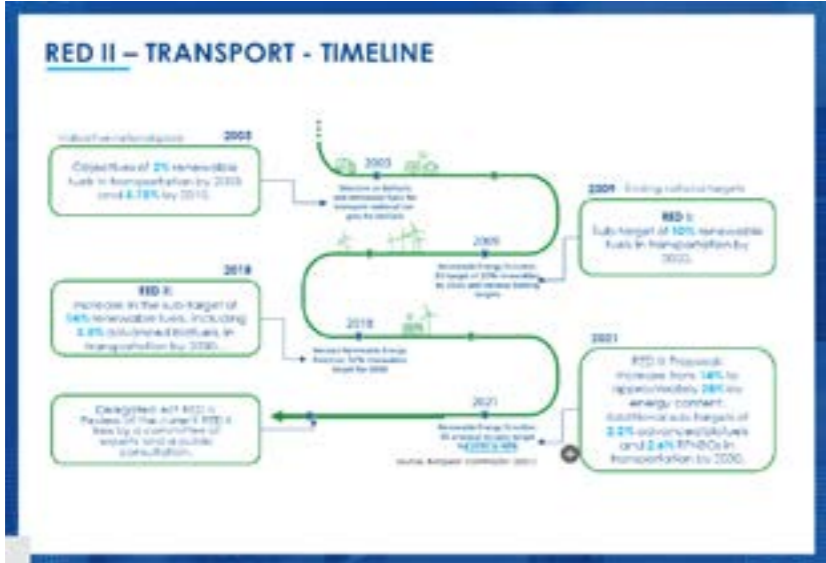


Hinico collaborated within the first green hydrogen certification in Latin America



SOME EXAMPLES OF OUR DELIVERABLES

WHAT COULD YOU EXPECT FROM US





WHY TO WORK WITH US

We have **successfully supported + 200 clients within their PtX project development**, both from private as well as public sector along the whole hydrogen value chain.

WHO WE ARE



Hinicio is a leading technical and strategic consultancy specializing in hydrogen and its derivatives, sustainable mobility, and industry decarbonization. Our expert team advises governments, companies, and international organizations across Europe, the Americas, Asia, Africa, and the Middle East.

850+
PROJECTS

40+
COUNTRIES

A PIONEERING VISION WITH A GLOBAL REACH

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"Understanding your project from every angle is not just our philosophy, it's our promise."