



Experts building
the hydrogen future
now

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Hinicio

ADVISORY SERVICES



BRUSSELS • PARIS • ROTTERDAM • WASHINGTON D.C. • SANTIAGO • BOGOTA

A **VULCAIN** COMPANY

VALUE PROPOSITION

An experienced team combining leading techno-economic hydrogen expertise with an excellent understanding of EU regulation, auctioning and funding programs incl. H2Global, the European Hydrogen Bank and Innovation Fund and the ThyssenKrupp Steel Europe tender.

- The team is composed **of highly-skilled hydrogen and energy system experts**, with decades of professional experience and deep knowledge of the technical, economic, market, industry, and regulatory challenges related to hydrogen production at an industrial scale.
- 360-degree understanding of auctioning mechanisms for hydrogen, having supported clients in their applications for **H2Global**, the **Innovation Fund Auction (European Hydrogen Bank)**, **national auction and tender schemes for hydrogen** (such as the Contract for Difference scheme in the Netherlands – the SDE++), and private tender schemes, including ThyssenKrupp Steel Europe.
- Knowing what it takes to be successful in the **EU Innovation Fund**, having coordinated and supported over 15 applications for industrial-scale hydrogen production projects with an excellent success rate.
- Solid track record of developing **funding applications** for industrial scale hydrogen projects under the **Clean Hydrogen Partnership/FCH JU, Horizon 2020/Europe & IPCEI**, including most recently for a Hydrogen Valley in the Nordics.
- An in-depth and up-to-date knowledge of the hydrogen market, industry and policy and regulation at the EU level, including **RED II&III, CBAM, EU Gas Package and ETS**, having performed several regulatory compliance assessments for industrials and utilities around the globe.
- **Strong ability to support your team to rapidly mature your project** up to the necessary level of a competitive bid.
- **Strong ability to support your team in the understanding and elaboration of the required supporting documents**, having a solid track record at delivering this type of service to many clients, including in the context of H2 Global and the Innovation Fund.



ABOUT HINICIO

STRATEGY AND TECHNICAL CONSULTING FIRM SPECIALIZED IN HYDROGEN AND ITS DERIVATIVES, SUSTAINABLE MOBILITY AND INDUSTRY DECARBONIZATION

With a unique and multidisciplinary team of consultants, we advise governments, companies, and international organizations, including multilateral entities, investment banks, and venture capital firms.

Our experience in strategy development at various levels, coupled with our expertise in project and product planning, design, optimization, and certification, enables us to understand the technical and operational fundamentals that shape energy value chains, including the complexities and opportunities of hard-to-abate sectors.

We have offices in **Brussels, Paris, Rotterdam, Santiago, Bogota and Washington DC.**

HINICIO IS PART OF VULCAIN GROUP SINCE 2022.



Business & Strategy



Project Development Assistance



Investment Advisory



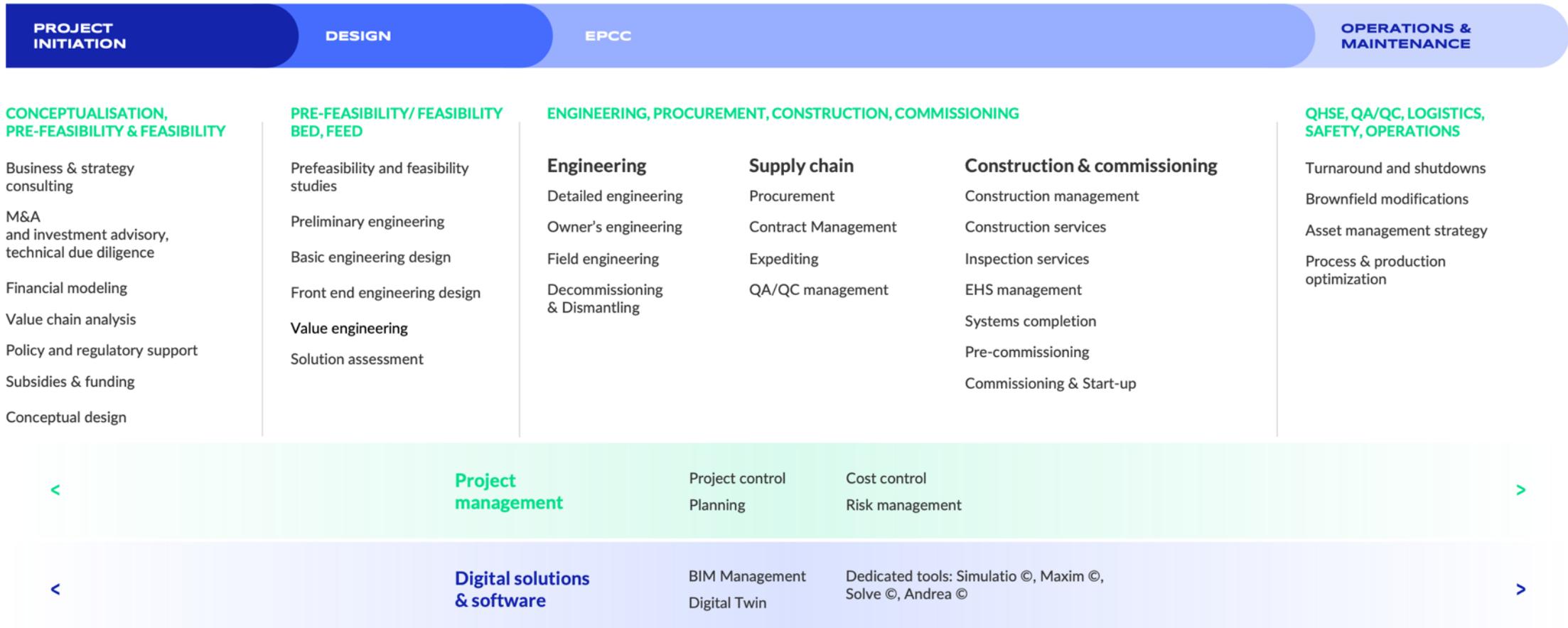
Policy & Regulation



Digital Solutions

OUR SUPPORT THROUGHOUT THE VALUE CHAIN

WE ADDRESS THE FULL INFRASTRUCTURE VALUE CHAIN, FROM STRATEGIC DECISION-MAKING TO HIGH CAPEX PHASES



OUR TAILOR-MADE CONSULTING SERVICES



Business & Strategy

- Market research and intelligence studies
- Corporate & Competitive Strategy
- New Business Cases Market Entry
- Go-to-Market Strategies
- Tactical Plans & Roadmaps
- Value Chain Analysis



Project Development Assistance

- Project implementation
- Prefeasibility and feasibility studies
- Engineering system design
- Geographic site assessment
- Energy systems modeling & optimization
- PPA and HPA purchase agreement and Business models
- PMO / consortium management



Investment Advisory

- Analysis & Financial Modeling
- Investment strategies
- Deal origination
- Subsidies and funding application
- Strategic Due Diligence
- Technical Due Diligence
- Commercial Due Diligence



Policy & Regulation

- Policy design and evaluation
- Regional and National roadmaps
- Economic studies
- Workshops & Trainings
- Certification schemes design and development
- Regulatory framework analysis and compliance
- Certification strategy
- Ex ante, midterm & ex-post impact analysis



Digital Solutions

- Advanced modeling for PtX system design and optimization
- PtX System Design capability building and support services
- PtX Techno-Economic Datasets
- Web based digital reports and visualization

H2GLOBAL: FINANCING SUPPORT MECHANISM OFFERING 10-YEAR HPA'S BOOST THE PTX MARKET ON INDUSTRIAL SCALE

H2Global relies on the “Hydrogen Intermediary Network Company” (HINT.Co) which **unites supply and demand**



Source: H2Global. h2-global.de/wp-content/uploads/2021/09/Fact-Sheet-H2Global-Sep.-2021-EN.pdf
 *Based on the first round of H2Global, subject to change in the second round.

HINT.CO

- ➔ Is a market maker which will buy and sell PtX products: renewable hydrogen-based ammonia, methanol, and e-kerosene.
- ➔ Offers PtX project developers a 10-year Hydrogen Purchase Agreement (HPA).
- ➔ Acts as a bankable off-taker, guaranteed by a foundation equipped with federal funds.
- ➔ Enters into long-term HPAs on the supply side and short-term sales contracts (HSAs) on the demand side.

Objective of H2Global:

- Promote and effectively increase the market for **sustainably produced RFNBO H₂** and derivatives in countries outside of Europe, to provide its availability in Germany and Europe and in this way contribute to environmental and climate protection.

PLANS ARE UNDERWAY FOR A SECOND CALL FOR PROPOSALS, BUILDING ON THE INITIAL ROUND OF THE H2GLOBAL INSTRUMENT LAUNCHED IN 2020

The proposed* second tender offers more flexibility to market participants

	1 st Tender	2 nd Tender (proposal*)
Point of delivery/sale	The Point of first Delivery in the EU and the Point of Sale were identical.	The Point of Sale could be located in Germany, independent of the location of the Point of Delivery in the EU.
Product definition	Lots were designed to be “product-specific” to procure ammonia, methanol and eSAF.	Individual lots will be set up on a “vector-open” or “product-open” basis .

Vector Open

- ▶ Targets the **purchase of hydrogen, without specifying the transport medium**.
- ▶ Offers flexibility to choose between different options for the most economical vector.
- ▶ Suppliers will bid the (energy) quantity of hydrogen to be supplied, regardless of whether pure hydrogen is transported or, for example, LOHC, ammonia or methane is used as carrier.
- ▶ An award decision would then be made based on the highest quantity of the contractual product offered.

Product Open

- ▶ Producers are free (within the framework of the pre-selected products) to decide which product the supply contract is for, as long as requirements defined for the product and the transport are met.
- ▶ In this case, suppliers could **bid on the amount of energy to be delivered, regardless of which product is delivered** (e.g., hydrogen, ammonia, methanol or methane).
- ▶ An award decision could then be made based on the highest amount of energy offered.

THE TOTAL PURCHASE VOLUM WILL BE UP TO EUR 3.5 BILLION OVER A 10-YEAR PERIOD

Region	Lot	Financial volume range (million EUR)
Europe	Vector open	600-1100
Global	Vector open	600 (300 million German contribution)
North America	Product open	300-600
Asia	Product open	300-600
Africa	Product open	300-600
South America/Australia Oceania	Product open	300-600

The concrete financial purchase volume in the individual lots will be decided based on the bids received in the individual lots.

OPTIMIZE YOUR PROJECT AND INCREASE YOUR CHANCES OF SUCCESS

From thoroughly understanding the auction and optimizing your project, to bidding at a right price

Auction Understanding

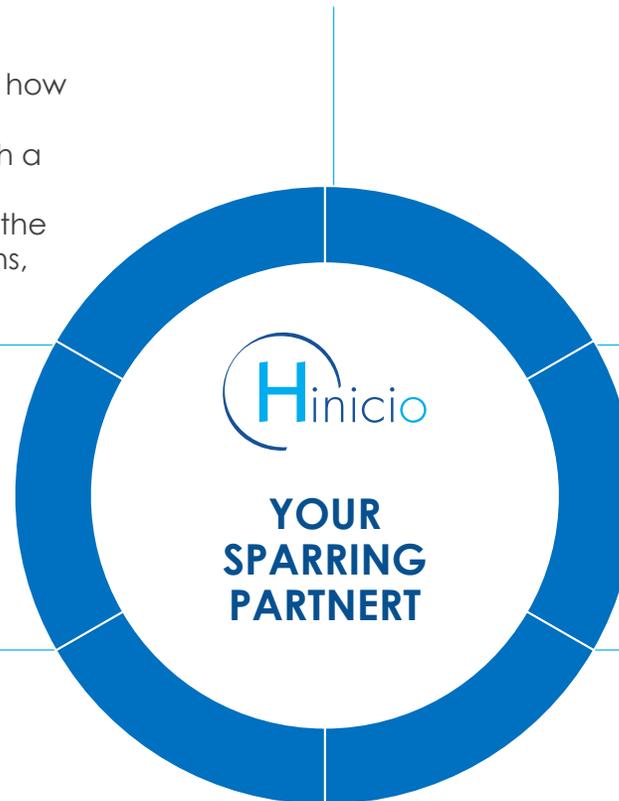
- ▶ Gain insight into the bidding criteria and learn how to successfully meet them.
- ▶ Prepare your team for the auction process with a series of targeted workshops.
- ▶ Stay updated with the latest developments in the ecosystem, including market trends, regulations, and technologies.

Compliance

- ▶ Assess regulatory compliance against EU REDII and Delegated Acts.
- ▶ Conduct a third-party independent audit under the EU-recognized Voluntary Scheme (CertifHy).

Optimize LCOX

- ▶ Optimize the project concept in its early stages.
- ▶ Obtain expert reviews of your business model.
- ▶ Conduct techno-economic system optimization.
- ▶ Develop a funding strategy to smartly benefit from multiple public sources.



Offtake Strategy

- ▶ Identify viable alternative off-takers.
- ▶ Assess their willingness to pay.
- ▶ Conduct techno-economic due diligence and portfolio assessment.
- ▶ Draft off-take agreements.

Bidding Strategy

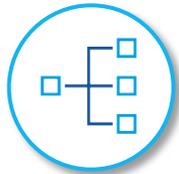
- ▶ Balance a high probability of winning against the risk of overbidding.
- ▶ Use Hinicio's proprietary LCOX modeling tool (ANDREA) to understand your competition's costs and assess competing projects.
- ▶ Enhance your market intelligence with our insights.

Supply Chain Risk Mitigation

- ▶ Evaluate the feasibility and cost-efficiency of delivery methods and routes.
- ▶ Determine optimal delivery methods, considering infrastructure development timing.
- ▶ Identify potential supply chain disruptions.
- ▶ Develop a contingency plan to mitigate risks.

DEVELOP A HIGH-QUALITY APPLICATION THROUGH OUR SERVICES

From coordination and content development to supporting contracting



Application Coordination

Coordination of the application and administrative support, including setting up a shared digital workspace, organizing meetings, minuting, tracking actions, planning, progress reporting, consolidating partner inputs, and completing administrative forms.



PPA & HPA Support

- ▶ Identification, selection and definition of suitable P/HPA(s).
- ▶ Pricing support.
- ▶ Compliance with auction criteria and regulation (EU RED II).



Content Development & Support

- ▶ Assist in defining bidding strategy and project scope.
- ▶ Develop application forms and supporting documentation (e.g., project concept, business case, financing plan, implementation concept, GHG emissions calculations, regulatory compliance).
- ▶ Provide quality control and expert review.



Grant Agreement Support

Upon selection: support negotiations with the funding body, revise documentation, and address evaluators' comments and questions.

BESIDES BUSINESS CASE IMPROVEMENT: What does win an H2Global fund mean for my project?

Financial



- ▶ Business Case Improvement
- ▶ Lower risk to banks by having a secured long-term HPA for (part of) of Project output

Compliance



- ▶ Demonstrate compliance with RED II and RED III criteria for RFNBO's
- ▶ ...With obligations to reduce GHG emissions
- ▶ ...With the highest socio-economic sustainability standards

Market Access



- ▶ Being among the first sellers of renewable molecules for different end uses in European markets
- ▶ Demonstrate project maturity
- ▶ Possibility to sell in jurisdictions where it is not allowed to sell grey hydrogen or fossil fuels

Reputational



- ▶ Recognition of ESG and CSR criteria
- ▶ Traceability, transparency and trust for final consumer which may facilitate securement of additional offtakers
- ▶ Huge impact on shareholder value through corporate branding



Experts building the hydrogen future **now**



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HinicioSA





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