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SPF Economie, P.M.E., Classes moyennes et Energie

RFNBO Certification Pilots

Piloting the certification and reporting of RFNBO in Belgium

KEY LEARNINGS

Version 1

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1. Introduction

The "RegistrHy" project was launched by Hinicio and Ludwig-Bölkow-Systemtechnik GmbH (LBST) in 2021 with the aim of developing certification systems for hydrogen molecules and their derivatives by 2025 in Belgium. The project scope included the development of a certification scheme for the certification of hydrogen and derivatives, and testing it in a real-life environment to identify potential obstacles and propose improvements to the existing certification framework. Hinicio and LBST ran 5 certification pilots on projects seeking to sell their products on the Belgian market, in collaboration with Certification Bodies, who ran audits on the projects based on the "*CertifHy EU RFNBO Voluntary Scheme*" developed as part of the RegistrHy project. These certification pilots ran from August to December 2024 on projects selected based on the following criteria:

- Size of the project: the project size had to be at least 5MWe
- Project maturity in terms of design and market readiness:
    - Design: it was required that the project had completed at least FEL-1 study
    - Market readiness: the project had to demonstrate that it had identified an offtaker in the EU.
- Complexity of the project: it was required that project developers demonstrate that they were addressing certain technical complexities, for example: the consumption of renewable electricity from a grid connected Power Purchase Agreement (PPA), the co-production of synthetic and biofuels, the use of specific feedstock (e.g. biogenic CO_2)
- Contribution to the Belgian Hydrogen Strategy: the projects had to be contributing to advancing the Belgian Hydrogen Strategy, for example by demonstrating that:
    - They had identified of an offtaker based in Belgium
    - They were using the Belgian infrastructure for the transport and / or distribution of the molecule
    - Other evidence, for example: intergovernmental declarations such as Memorandum of Understanding or other support letter
- Project differentiators: Hinicio and LBST sought to select projects that demonstrated a variety of different characteristics, to ensure rich learnings for Belgian authorities. Additional criteria therefore included geographical spread (a mix of projects for export to Belgium and projects for domestic consumption & use) as well as representing various production pathways and molecules produced (hydrogen, ammonia, methanol, e-SAF)

2. Selected projects

Table with overview of selected projects, molecules, CB chosen, timeline, etc.

Project Developer	Project name	Project location	COD	Molecule produced	Lead (Hinicio/LBST)	Certification Body running the audit
TES	Oman e-NG Project	Salalah, Sultanate of Oman	2030	e-NG (e-natural gas)	LBST	Bureau Veritas
YARA	June	Duqm, Sultanate of Oman	2026	Ammonia	Hinicio	TÜV SÜD
Bearhead	Point Tupper project	Nova Scotia, Canada	2030	Ammonia	LBST	Vinçotte
Total Energies	EnergHys	Vlissingen, Netherlands	2029	Hydrogen	Hinicio	DNV
First Ammonia		Port of Victoria, Texas, USA	2026	Ammonia	Hinicio	SGS

3. Methodology and Approach

Update:
The primary objective of the pilot is to support the development of the Belgian framework for the utilization of Renewable Fuels of Non-Biological Origin (RFNBOs) within both the transport sector and industrial sectors.

The pilot also aims to accelerate the Final Investment Decisions (FIDs) of projects by conducting assessments to ensure compliance with the Renewable Energy Directive (RED), the Delegated Act pursuant to Article 27(3) and the Delegated Act pursuant to Article 25(2) and Article 28(5) of the RED (collectively referred as "DA").

Additionally, the pilot seeks to offer substantial feedback to the Belgian administration and government regarding the application of European Union RFNBO criteria.

During the pilot phase, activities will include the introduction of the CertifHy EU RFNBO scheme, the preparation and execution of audits, and the compilation of a comprehensive final report detailing findings and recommendations. Through these efforts, the project is looking to foster the integration of RFNBOs into the European Union's energy landscape while ensuring regulatory alignment and efficient project execution.

Explain methodology, roles, timelines, deliverables etc.
Explain CB selection
Explain main activities: audit prep, execution etc.

Value chains		Molecules			
		H2	Ammonia	Methanol	eSAF
Geographies	BE -> BE	X			
	EU -> BE or BE -> EU	X			
	Intl -> BE or Intl -> BE -> EU		X	X	X

Figure 1

4. Key learnings

In the following key learnings table, the different elements need to be understood as follows:

The timeline for implementing these recommendations:

- *During engineering phase*: refers to the incorporation of equipment into the plant design, either to allow more flexibility during the operation or to monitor and perform mass and energy balances.
- *Before Final Investment Decision (FID)*: refers to the investigation of alternatives or the negotiation with third parties of concepts that might have an important impact during the operation of the plant, and that cannot be incorporated at a later stage.
- *Before Commercial Operation Date (COD)*: refers to the implementation of administrative measures and processes that are key to the certification of the RFNBO.
- *During operation*: refers to the implementation of strategies that would allow for the optimization of the production of RFNBOs, or the certification of the product.

The importance of these recommendations:

- *Low*: the result of the implementation of the recommendation is a nice to have but does not jeopardize the general business model.
- *Medium*: the recommendation needs to be addressed to successfully implement the project but can be corrected at a later stage if necessary.
- *High*: the implementation of the recommendation is paramount to the production or certification of the RFNBO.

Table of Key Learnings

VALUE CHAIN POSITION	ACTION	INVOLVED PARTIES	TIMELINE	IMPORTANCE
General	Make data simplifying certification process publicly available (e.g., the boundaries of Belgium bidding zone, the Belgium grid emissions factor, the share of renewables in the Belgium grid, etc.).	Belgium Authorities TSO/DSO	Before COD	Medium
General	Ensure relevant information (internal and from third parties) is available to perform an accurate GHG footprint calculation.	Economic Operators Power & other inputs suppliers	Before FID	Medium
General	Perform recurrent compliance checks/stress tests to ensure that the technical/commercial options retained do not jeopardize compliance.	Economic Operators	Before COD	High
General	Push for the speedy implementation of the Union Database for RFNBOs	Belgium Authorities European Commission	As soon as possible	High
General	Put in place a system for the tracking of the mass balance information to input into a PoS for all economic operators.	Economic Operators and other identified custodians	Before COD	Medium
General	Put in place a system for exchanging PoS into compliance tickets within Belgium, and make that system as liquid as possible.	Belgium authorities	Before COD	Medium

Renewable electricity generation and grid electricity exchange	**Help develop a system for hourly GOs for electricity.**	**Belgium Authorities TSO/DSO**	**Before 2030**	**High**
Storage, shipping, & distribution	Develop and facilitate the implementation of hydrogen related structure, such as ammonia crackers and the hydrogen backbone.	Belgium Authorities Cracker OEM TSO/DSO	Before COD	High
Storage, shipping, & distribution	Encourage the shipping of the derivatives using high-capacity ships carrying full load and travelling at eco-speeds.	Belgium Authorities Economic Operators Off-taker	During operation	Low
Storage, shipping, & distribution	Promote the use of carbon efficient fuels for shipping.	Belgium Authorities Economic Operators Off-taker	During operation	Low

4.1 Learnings regarding the policy & market framework in Belgium

This section provides an executive summary for the key learnings related to the importance of policies. In this context, emphasizing on the importance on transposing the amended Renewable Energy Directive (REDII revision)[1] into a national legislation in Belgium should be a top priority. This integration will ensure that the country's energy policy aligns with the EU targets. The early adoption of RED will also provide a clear regulatory framework which is crucial for all stakeholders in the energy transition sector.

Another key focus is the recognition of voluntary schemes by the European commission. These schemes play a significant role in verifying compliance with the requirements set in the Renewable Energy Directive and associated commission delegated regulations.
Additionally, the establishment of a robust system for the exchange of PoS into compliance tickets is essential to facilitate tracking and trading.

Accreditation
A significant learning regarding the certification framework for RFNBOs is the critical role played by accreditation bodies in enabling certification bodies to conduct audits. Certification bodies require proper accreditation to carry out audits under any RFNBO certification scheme. This accreditation serves as formal recognition that a certification body is competent to assess compliance with the relevant standards and criteria related to RFNBO certification.

To ensure a functional certification system, it is essential that the accreditation body in Belgium has an appropriate accreditation program in place. Without such a program, Belgian certification bodies may face significant delays or barriers in obtaining the necessary credentials to operate, while certification bodies from other European countries, having the required accreditation, may work in Belgium. This, in turn, could not only slow down the certification process and limit the availability of certification bodies capable of supporting the growing demand for RFNBO certification, but also lead to a significant disadvantage for national players.

To address this challenge, Belgian authorities should collaborate with national accreditation bodies to ensure the availability and implementation of the required accreditation programs.

[1] Revised Directive EU/2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast); OJ L 328, 21.12.2018, p. 82; modifications by Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652

Besides this, based on discussions with the European Commission, it can also be assumed that certifications can only be conducted by certification bodies that are established in Europe (this is still to be confirmed). Since accreditation must also take place in the country where the certification body is located, RFNBO-compliant certification can only be carried out by European accreditation bodies.

The concrete consequences of this cannot yet be fully foreseen, but it may mean, for example, that non-European certification bodies will seek to establish branches in European countries in order to be able to carry out certifications. Belgian authorities might want to take this into account.

Access to transparent and robust data

The RFNBO certification process heavily depends on transparent and reliable data. Economic operators, such as producers of renewable fuels, rely on accurate and up-to-date information to demonstrate compliance with certification criteria. Key data points, such as the boundaries of the Belgian bidding zone, the Belgian grid emissions factor, and the share of renewables in the Belgian grid, play a vital role in this process.

Currently, access to these essential data points is often fragmented or delayed, creating inefficiencies and potential barriers for certification applicants. To address this, it is crucial for relevant stakeholders, including grid operators and regulatory authorities, to ensure that such information is made publicly available in a user-friendly format. Providing open access to these data sources would significantly streamline the certification process, reduce administrative burdens, and increase the overall transparency and credibility of the system. Additionally, making this data readily available would support a level playing field for all market participants, fostering a more inclusive and competitive renewable fuels market in Belgium.

This also extends to comprehensive information to perform accurate greenhouse gas (GHG) footprint calculations. Both internal company data and third-party information are required to ensure the accuracy and reliability of the GHG assessments that underpin the certification process for RFNBOs. Internal data, such as production process parameters, energy consumption, and feedstock sourcing details, must be systematically collected and made readily available to certification bodies. Equally important is the access to third-party data, which may include emission factors, transport-related emissions, and upstream supply chain data. Ensuring the availability and accessibility of these data sources is essential for enabling precise GHG calculations, as well as for maintaining transparency and accountability within the certification framework.

To achieve this, it is recommended that companies implement robust internal data management systems and/ or foster close cooperation with external data providers. Standardized data-sharing protocols and clear guidance from the certification scheme as well as regulatory authorities would further support this objective.

National recognition of Proofs of Sustainability (PoS)

Under EU regulations, market participants are required to meet national quotas for the placement of RFNBOs in the market. PoS serve as evidence that these obligations have been fulfilled. However, to make PoS usable for quota fulfillment, a clear and accessible process for submitting and converting these documents into compliance tickets is required.

Without a streamlined system in place, economic operators may face administrative burdens and delays in demonstrating compliance with national quota obligations. To address this, Belgium should establish a user-friendly system that allows operators to submit PoS for review and conversion into compliance tickets. This system should be designed to ensure transparency, traceability, and security, while minimizing administrative complexity for operators.

A well-functioning system would enable economic operators to have certainty regarding the acceptability of their PoS and reduce the risk of delays in fulfilling their obligations. Policymakers and regulatory authorities should work together to develop clear procedures and digital infrastructure to support this process. By facilitating the efficient exchange of PoS into compliance tickets, Belgium can ensure smoother market participation, enhance regulatory compliance, and promote the broader use of RFNBOs in the energy system.

4.2 Learnings regarding the Belgian infrastructure (transport/ ports/ distribution)

To support the transition and the development and utilization of RFNBO, the Belgium responsible authorities should prioritize the development and implementation of the required infrastructure. For Example, crackers of hydrogen derivatives into hydrogen. Pipelines, trucks and any other transportation means to distribute and deliver the RFNBO compliant to various offtakes. Such infrastructure is vital for fostering a green hydrogen economy and meeting the country's goals and strategies.

Moreover, the shipping industry needs to be encouraged to develop high-capacity carriers to enhance the economic viability of transporting RFNBOs and environmental aspects also need to be taken into consideration, therefore ships running on alternative sustainable fuel with eco-speed is essential not only for the environment but also for the emission reduction to ensure meeting the required threshold at the final destination. Therefore, measures have to be taken to incentivize the use of alternative fuel and support research and development to achieve long term sustainability in the maritime.

Optimizing the transportation of RFNBO derivatives is also essential for reducing the GHG footprint and ensuring cost efficiency. Encouraging the use of high-capacity ships that carry full loads and operate at eco-speeds can significantly improve the environmental footprint of shipping activities, helping to meet the required RFNBO emission targets. High-capacity vessels also maximize the volume of transported derivatives per voyage, thereby reducing the number of trips required and, consequently, lowering overall emissions.

Eco-speeds, or operating at speeds optimized for fuel efficiency, further enhance sustainability by minimizing fuel consumption and greenhouse gas emissions. This practice not only supports environmental goals but also reduces operational costs for shipping companies and economic operators. To facilitate this approach, Belgian policymakers and port authorities could consider offering incentives for shipping companies that adopt these practices. Measures such as reduced port fees, priority docking, or recognition programs could encourage the industry to invest in high-capacity, eco-efficient shipping solutions. Additionally, promoting the use of advanced logistics planning and digital tracking tools can help optimize shipping routes and schedules, ensuring that vessels operate efficiently and sustainably. By prioritizing the use of high-capacity ships and eco-speeds, Belgium can contribute to a more sustainable and cost-effective supply chain for RFNBO derivatives, aligning with broader EU environmental and decarbonization objectives.

To further reduce the environmental impact of transporting RFNBOs, it is also possible to promote the use of carbon-efficient fuels for shipping. Transitioning from conventional marine fuels to low-carbon alternatives, such as biofuels, green hydrogen, ammonia, or methanol, can significantly decrease greenhouse gas emissions associated with maritime transport. Belgian policymakers and port authorities can work with shipping companies to incentivize the adoption of these carbon-efficient fuels. Additionally, investment in the necessary refueling infrastructure at key ports can prove important to facilitate this transition.

Supporting research and development for new low-carbon maritime fuels and technologies is also key to advancing the industry. By promoting the use of carbon-efficient fuels, Belgium can enhance the sustainability of its shipping sector, support the decarbonization of supply chains, and contribute to meeting national and EU climate targets.

4.3 Learnings regarding existing certification systems in Belgium

Union Database for RFNBOs

When talking about robust data management systems, the role of the Union Database for RFNBOs is also to be mentioned. This centralized database is intended to support traceability, improve transparency, and facilitate the verification of renewable fuel production and use across the EU.

The timely implementation of the Union Database would significantly reduce administrative burdens for producers and auditors by providing a single, standardized source of verified information. This would streamline reporting obligations and simplify the certification process, thereby reducing costs and time requirements for all stakeholders. Additionally, the database would enhance market confidence in the

certification system, as it would allow for greater transparency and accountability throughout the supply chain.

To make progress on this front, it is recommended to actively engage with EU policymakers and technical working groups responsible for the development of the Union Database. Ensuring that stakeholders' needs and concerns are reflected in the database's design and functionality is critical to its successful implementation.

Hourly GOs

To support improved traceability and verification of renewable electricity used in RFNBO production, the introduction of hourly GOs, as outlined in Article 19 of the revised RED II, could also prove beneficial. While traditional GOs typically operate on a monthly or annual basis, shifting toward an hourly system would help provide the temporal granularity needed to more closely align renewable electricity consumption with production from 2030 onwards.

Developing such a system could also support future compliance with EU regulations that require a strict temporal correlation between renewable electricity generation and its consumption in hydrogen production. It would benefit producers by offering a clear and verifiable pathway for demonstrating their use of renewable electricity

Belgian authorities, in collaboration with grid operators, issuing bodies and EU authorities, should take first steps to establish the necessary infrastructure and regulatory framework for hourly GOs. This could include the following approaches:

- Smart Metering Infrastructure: Expand the deployment of smart meters that can accurately measure electricity generation and consumption on an hourly basis. These meters should be capable of securely transmitting data to the digital platform to support real-time verification.
- Data Standardization: Establish standardized data formats and protocols to ensure consistency in how hourly GOs are recorded and shared across different market participants. This will facilitate interoperability between systems and simplify the auditing process. This would have to be done in cooperation with other European stakeholders to ensure a standardized approach.
- Regulatory Guidelines: Develop clear regulatory guidelines outlining the requirements for issuing and validating hourly GOs. This should include rules for data accuracy, reporting timelines, and compliance verification processes. This as well would have to be done in cooperation with other European stakeholders to ensure a standardized approach.
- Pilot Projects: Launch pilot projects to test the feasibility and effectiveness of the hourly GO system. These projects can help identify potential challenges, refine the system, and demonstrate its practical benefits to stakeholders.
- Stakeholder Collaboration: Foster collaboration between energy producers, grid operators, certification bodies, and technology providers to ensure that the system meets practical needs and can be effectively implemented.

4.4 Learnings regarding specific technical complexities for RFNBO certification

An essential learning regarding the technical and operational aspects of RFNBO certification in Belgium is the importance of conducting recurrent compliance checks and stress tests. These checks are designed to verify that the technical and commercial choices made by operators continue to align with certification requirements over time. As certification standards evolve and operational conditions change, ongoing validation is required to ensure that no compliance risks emerge.

Recurrent compliance checks provide early detection of potential non-conformities, allowing operators to take corrective actions before issues escalate. Stress tests, on the other hand, simulate adverse scenarios, such as fluctuations in feedstock availability, shifts in production capacity, or changes in regulatory requirements. By identifying how technical and commercial options perform under these conditions, companies can better anticipate risks and implement necessary adjustments.

To implement this approach effectively, companies should establish a systematic review schedule and employ automated monitoring tools to track key performance indicators. Additionally, involving third-

party auditors to conduct independent stress tests can provide an additional layer of assurance. By prioritizing regular compliance checks and stress tests, operators can demonstrate their ongoing commitment to certification integrity, reduce the risk of disruptions, and ensure the sustained alignment of their operations with RFNBO certification requirements.

5. Conclusion

The pre-certification projects conducted since 2021 have provided invaluable insights into the RFNBO certification process. These pilot projects offered practical experience in a market that is still in its infancy, where many procedures and requirements remain new or undefined. The findings from these projects have been instrumental in identifying and addressing both technical and procedural challenges associated with RFNBO certification.

These initiatives have yielded significant learnings for certification schemes and national authorities, as well as to economic operators and certification bodies, including their auditors. These projects have highlighted areas for improvement in regulatory frameworks, data availability, compliance processes, and logistical considerations. By simulating real-world certification scenarios, these projects have helped streamline the path toward full-scale RFNBO certification, making it more efficient and transparent.

The lessons learned have helped to streamline the RFNBO certification process and enhanced the understanding of practical implementation, benefiting all stakeholders involved. As Belgium continues to develop its RFNBO market, these insights will serve as a solid foundation for ensuring a robust and efficient conditions for future RFNBO projects to align with EU standards and supports the transition to a sustainable energy future.

Annex: Further key learnings relevant for market participants

VALUE CHAIN POSITION	ACTION	INVOLVED PARTIES	TIMELINE	IMPORTANCE
General	Transpose RED III into local legislation.	Belgium Authorities	As soon as possible	High
General	Push for Voluntary Schemes to be recognized.	Belgium Authorities European Commission	As soon as possible	High
General	Choose a Voluntary Scheme and a recognized certification body to prepare for the actual certification well in advance.	Economic Operators Voluntary Schemes	Before COD	High
General	Put in place a mass balancing system allowing to monitor the sustainability attributes of the different products across the entire value chain.	Economic Operators EPC contractor Cracker OEM TSO/DSO	During engineering phase	High
General	Ensure access to auditors to the mass balancing sites across the entire value chain during certification.	Economic Operators Third-party service providers	Before COD	Medium
Infrastructure	Commonly used infrastructure shall take into consideration the requirements of grid intensity for GHGs calculation (including for seawater desalination) and the logistical facilities for mass balancing issues, etc.	Authorities in the country of production TSO/DSO Infrastructure operators	During design stage	High
Renewable electricity generation and grid electricity exchange	Install a smart metering system allowing to oversee the energy balances, including any possible exchanges with the local grid and the charging / discharging of the in-house battery energy storage system (in case one of this is installed).	Economic Operators EPC contractor	During engineering phase	High
Renewable electricity generation and grid electricity exchange	Install a data transmission system allowing to adjust the power consumption of the electrolyzer to follow the load of available renewable electricity.	Economic Operators EPC contractor Power supplier	During engineering phase	High
Renewable electricity generation and grid electricity exchange	Even installations connected to electrolysers via direct line must provide GOs/certificates to ensure that the RES installation does not sell green attributes independent of the electricity supplied to the electrolyser facility to avoid double counting.	Economic Operators Power supplier	During COD	High
Hydrogen production	Implement sub-metering such that the hourly matching of the electrolyser consumption with the renewable electricity generation can be proved.	Economic Operators EPC contractor	During engineering phase	High

Hydrogen production	Install the necessary equipment to perform the mass balance.	Economic Operators EPC contractor	During engineering phase	High
Hydrogen production	Perform mass balance and chose the balancing period that optimizes operation.	Economic Operators	During operation	Medium
Hydrogen production	Monitor and keep the products GHG emissions within the operational thresholds necessary to guarantee RED compliant RFNBO.	Economic Operators	During operation	High
Hydrogen production	Define timeframes for consignments in a way that economically optimizes RED compliant RFNBO hydrogen production. Particularly in relation to the potential use of non-renewable electricity to power non-relevant energy inputs (i.e., not the electrolyser stack), where a balance needs to be struck between using cheap/readily available energy from the grid while keeping the GHG emissions of each consignment under the threshold agreed upon with Economic Operators.	Economic Operators	During operation	Low
Hydrogen production	Set up a forecasting and control system that allows to maximize the amount of renewable electricity fed to the electrolyser.	Economic Operators Power supplier	During operation	Low
Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Due to the potential expected fluctuations in hydrogen generation and the capabilities of the derivatives plant, it is recommended to assess the optimization of the size of a hydrogen buffer in relation to these requirements.	Economic Operators EPC contractor	During engineering phase	Low
Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Implement a strategy for the storage of H_2 according to the production capacity of the derivatives plant, in case it is required.	Economic Operators	During operation	Low
Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Install the necessary equipment and metering systems for performing mass balance.	Economic Operators EPC contractor	During engineering phase	High
Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Perform mass balance and choose the balancing period that optimizes operation.	Economic Operators	During operation	Medium

Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Implement sub-metering such the matching of the ammonia plant electricity consumption with the renewable electricity generation can be proved (on a consignment basis).	Economic Operators EPC Contractor	During engineering phase	High
Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Cases where CO_2 is required as feedstock to produce RFNBO, ensure the sources of CO_2 supply allow achieving a GHG intensity of the RFNBO below the threshold.	Economic Operators	During design phase	High
Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Perform risk assessment on the security of supply of biogenic CO_2.	Economic Operators	During design phase	High
Derivatives production *(inc. Ammonia, Methanol, e-SAF & others)*	Where CO_2 from waste to energy plant, the biogenic source of it and its share must be established with evidence.	Economic Operators Waste to Energy Plant Operators	During design phase	High
Storage, shipping, & distribution	Install the necessary equipment and metering systems for performing mass balance.	Economic Operators	During engineering phase	High
Storage, shipping, & distribution	Define whose responsibility it is to perform the mass balance and GHG emissions calculations for the downstream transport and uses.	Economic operators	Before COD	High
Downstream	Install the necessary equipment and metering systems for performing mass balance.	Economic Operators Cracker OEM	During engineering phase	High
Downstream	Perform mass balance and choose the balancing period that optimizes operation.	Economic Operators Cracker OEM	During operation	Medium
Downstream	Ensure the correct transmission of the PoS along the entire value chain.	Economic Operators and other certified custodians	During operation	High