

Lhyfe

EU Taxonomy Assessment

-

*Alignment assessment of
Lhyfe's 2021 turnover*

March 2022



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EXECUTIVE SUMMARY

100%

of LHYFE's 2021 turnover is

Aligned with
the EU Taxonomy



Lhyfe

Evaluation date: 31th of March 2022

EthiFinance views Lhyfe's activity as being 100% aligned with the EU Taxonomy. The assessment is based on the following:



SCREENING CRITERIA:

Aligned activities must correspond to screening criteria set out in the EU Taxonomy and available at the time of the evaluation.

100% of Lhyfe's activity falls within an eligible sub-sector identified by EU Taxonomy as directly contributing to Climate Change Mitigation. Moreover, the company's activity complies with all the listed screening criteria.



DO NO SIGNIFICANT HARM PRINCIPLE:

The DNSH Principle corresponds to the capacity of a company to anticipate and mitigate relevant environmental risks for its activities.

As of today, Lhyfe complies with all of the 4 DNSH criteria. For its upcoming development projects, it would be recommended for the company to develop a strategic framework providing a global and common environmental risks management system on an international scale.



MINIMUM SOCIAL SAFEGUARDS:

This requirement corresponds to the alignment of a company's policies with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights – in particular principles identified in the Declaration of International Labour Organization.

Lhyfe's Ethical Charter & Code of Conduct are compliant with minimum social standards, as defined today in the EU Taxonomy guidelines.

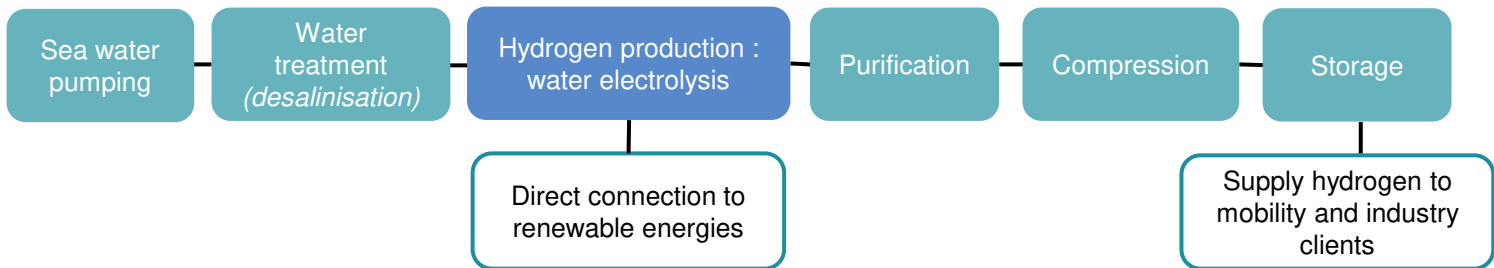
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1. LHYFE

Lhyfe is a French SME founded in 2017 specialises in the development of industrial renewable hydrogen production sites. As independent green hydrogen producer, Lhyfe's purpose is to decarbonise mobility and industry by supplying renewable energy while avoiding 1 billion tonnes of CO2 emissions.

Lhyfe's decentralised sites – which produce green hydrogen through electrolysis of water – are directly connected to local renewable energy sources (ex. wind farm):



Key Facts

1st industrial production site in September 2021

- Site in Bouin: World first industrial site directly connected to a wind farm
- Production: 300 kg/day 2021

1st offshore hydrogen production unit in the world in 2022

+70 employees

€+200 million revenue (FY2021)

Active in **8** countries across Europe

+60 projects across Europe

200 MW of projects in engineering (66 tones of green H2/ day)

Main Activities

- **Business Development:** development of Lhyfe's sites particularly in countries intending to develop offshore solutions
- **Engineering:** optimization the production process (onshore and offshore) and continuous improvement (ex. site deployment, sea oxygenation etc)
- **Operational:** exploitation, maintenance, supply chain and safety

Keys to Success

Onshore & Offshore Leader

- Top-notch engineering/production capacities
- Direct connection to renewable energies

Customer Approach

- The market's largest business development team
- A variety of specialists with sector-specific experience

Scalable & Agnostic

- Decentralized and replicable production units
- Optimized project-specific technologies

End-to-end

- Comprehensive value chain mastery
- Vertical integration to deliver operational experience

Artificial Intelligence

- Full process digitalization
- Energy efficiency

2. METHODOLOGY ^(1/2) - Overall Approach

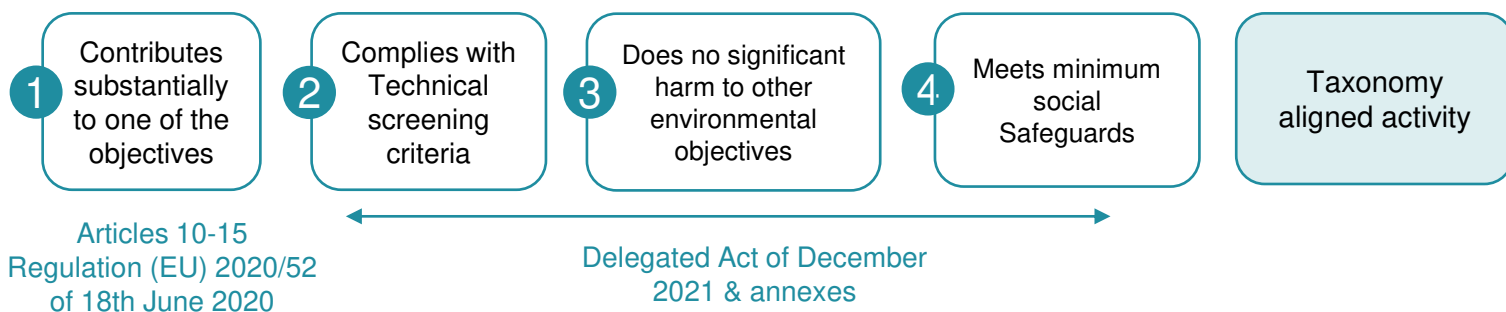
The **EU Taxonomy** is a classification tool intended to enable investors and companies to determine what economic activities and investments will contribute substantially to one of the EU's six environmental objectives:

1. Climate change mitigation
2. Climate change adaptation
3. Sustainable use and protection of water and marine resources
4. Transition to a circular economy, waste prevention and recycling
5. Pollution prevention and control
6. Protection of healthy ecosystems

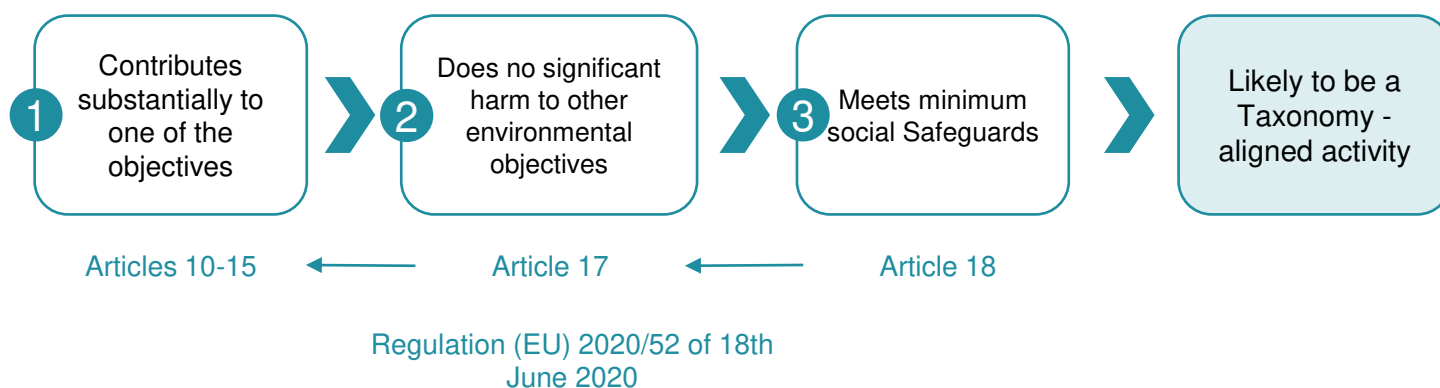
This evaluation was carried out in March 2022. To this date, the only delegated acts published (with defined technical screening criteria) are the ones related to the first two objectives "**Climate change mitigation**" and "**Climate change adaptation**". The other delegated acts defining detailed technical screening criteria for the remaining four objectives are expected to be published in the first semester of 2022. However, the Regulation (EU) 2020/852 already provides general guidelines on the eligible sectors, potentially contributing to these four objectives.

In this evolutive regulatory context, **EthiFinance's assessment** considered the following general requirements in order to determine the alignment of a company's activities with the EU taxonomy:

• Methodology for EU objectives 1 & 2



• Methodology for EU objectives 3 to 6



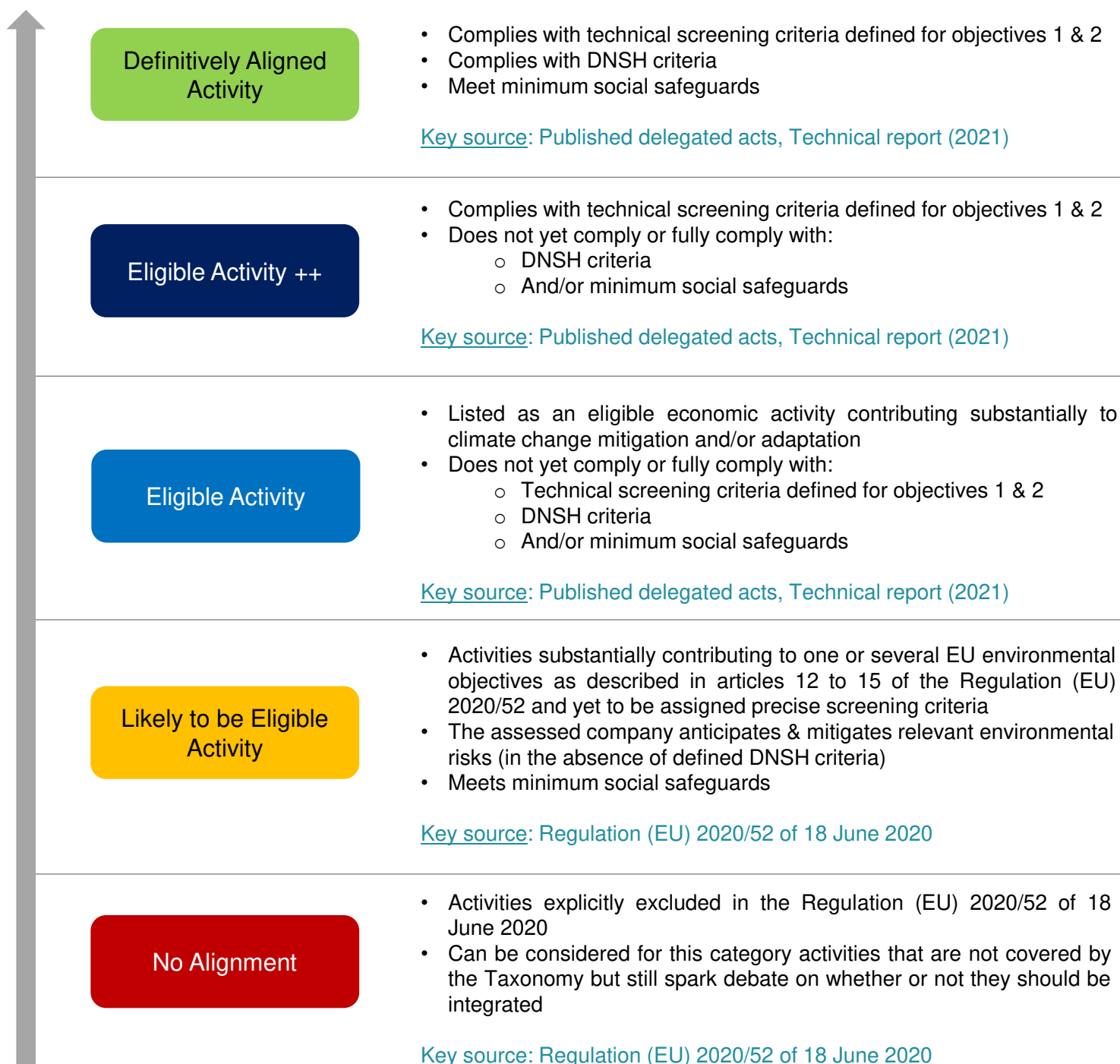
2. METHODOLOGY (2/2) – Degrees of alignment

The analysis of EU Taxonomy alignment carried out by EthiFinance consists of a two-stage approach:

1) Eligibility assessment: Evaluation of the substantial contribution of the companies' economic activities to one or several EU environmental objectives;

2) Alignment assessment: Evaluation of the compliance with Technical Screening Criteria (TSC), Do Not Significant Harm (DNSH) principles and minimum social safeguards.

In the light of restricted available regulatory information, EthiFinance defined four different degrees of alignment:



3. ASSESSMENT OF THE DEGREE OF ALIGNMENT

100%

of Lhyfe's turnover is

Aligned with the EU Taxonomy



- ✓ Contributes substantially to the "Climate change mitigation objective"
- ✓ Complies with 100% of the screening criteria defined in the EU Taxonomy
- ✓ Complies with all of 4 DNSH criteria
- ✓ Complies with the minimum social safeguards



Lhyfe's activity is covered by the EU Taxonomy under the category "Manufacture of hydrogen" (NACE code C.20.11). As a pure player, Lhyfe's revenue strictly depends on the production of hydrogen from renewable energies. Ethifinance thus assessed the company's alignment with the EU Taxonomy solely in the light of this activity.

Requirements to be aligned with EU Taxonomy 1 st objective: Climate change mitigation		Corresponding activities at Lhyfe
Description	Manufacture of hydrogen (C20.11)	Development of industrial renewable hydrogen production sites
Screening Criteria	<ol style="list-style-type: none"> The activity complies with the life-cycle GHG emissions savings requirement of 73,4 % for hydrogen (resulting in life-cycle GHG emissions lower than 3 t.CO2.e/t.H2) and 70 % for hydrogen-based synthetic fuels relative to a fossil fuel comparator of 94 g.CO2.e/MJ in analogy to the approach set out in Article 25 of and Annex V to Directive (EU) 2018/2001. Life-cycle GHG emissions savings are calculated using the methodology referred to in Article 28 of Directive (EU) 2018/2001 or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emission savings are verified in line with Article 30 of Directive (EU) 2018/2001 where applicable, or by an independent third party. Where the CO2 that would otherwise be emitted from the manufacturing process is captured for the purpose of underground storage, the CO2 is transported and stored underground. 	<ul style="list-style-type: none"> ✓ Lhyfe's hydrogen carbon footprint: <ul style="list-style-type: none"> ○ Scope 1 (manufacturing process) = 0 kg.CO2/kg.H2 ○ Scope 2 (purchased electricity) = 0,85 kg.CO2/kg.H2 ○ Scope 3 (other indirect) = 1,94 kg.CO2/kg.H2 ➤ Total = 2,78 kg.CO2/kg.H2 ✓ The calculation of Lhyfe's carbon footprint has been subcontracted to Carbo (carbon expert service provider). Carbo's calculation algorithm is based on public data and methodologies provided by the World Bank, Alan Index, Agence de l'environnement et de la maitrise de l'énergie (ADEME), and Greenhouse Gas Protocol. ✓ Calculation of life-cycle GHG emissions has been therefore carried out according to international standards and verified by an external party. ✓ Results were validated through comparison with Hydrogen Council Report – Decarbonization pathways (2021)

4. RISK MANAGEMENT & HUMAN RIGHTS

4.1 Do No Significant Harm Principle (DNSH) 1/2



Activity: Manufacture of hydrogen

Environmental objectives	Compliance with DNSH criteria	Lhyfe's preventive actions
#2 Climate change adaptation		<p>Owing to its location close to the coast, Lhyfe's production unit in Vendée is partly vulnerable to physical climate risks that may affect the landfill site where it operates, particularly natural floods. Such events could lead to production shutdown and supply disruption, resulting in a costly production delay.</p> <p>Considering these issues, an environmental study has been carried out by an external expert before the production unit construction in order to assess potential climate risks and vulnerabilities (ex. flood simulations), and to develop a risk management system including risk mitigation action plan (ex. raising of buildings). Furthermore, it is worth mentioning that, as ICPE installations (Classified Installations for Environmental Protection), the landfill sites are highly regulated and monitored in France.</p> <p>For the ongoing offshore project, DNV (independent expert in risk management) performs safety studies. According to Lhyfe which plans to expand into international geographical areas, physical climate risks and vulnerabilities will systematically be assessed on future projects.</p>
#3 Sustainable use and protection of water and marine resources		<p>Lhyfe's production unit pumps water from the sea to produce hydrogen through water electrolysis. The location of the production unit needs to ensure sufficient and continuous supply of water, hence it cannot be in water-stressed areas.</p> <p>Moreover, Lhyfe has developed a water protection management plan as required by French regulations:</p> <ul style="list-style-type: none"> • The waste water generated by the electrolysis is collected and piped to the water treatment station ; • Water emissions are monitored and verified to control the quality of water post-operation. <p>In accordance with the environmental study, which has also addressed impacts related to water (land-use, aquatic areas, water waste and consumption etc), Lhyfe unit therefore has no negative impact on surface or ground water.</p>
#4 Transition to a circular economy	NA	NA

4. RISK MANAGEMENT & HUMAN RIGHTS

4.1 Do No Significant Harm Principle (DNSH) 2/2

Activity: Manufacture of hydrogen

Environmental objectives	Compliance with DNSH criteria	Lhyfe's preventive actions
#5 Pollution prevention and control		<p>Part of the electrolysis of water, chemicals are required in the process of using electricity to decompose water into oxygen and hydrogen. Lhyfe has established waste water management system with the support of various environmental studies (ex. HAZMAT) in line with the French regulations. The company's specific infrastructure includes: buffer tank, closed-loop water system, leakage management process, and retention tank for chemical storage.</p> <p>Lhyfe's facility does not generate air pollutant.</p>
#6 Protection and restoration of biodiversity and ecosystems		<p>As located in a Natura 2000 protected area, and in compliance with local regulations, an assessment of the impacts on the landscape, fauna and flora, has been carried out by an external expert at the time of site selection. Based on its conclusions, mitigation measures are implemented on Lhyfe's site such as animal crossing point.</p> <p>The company commits to systematically conduct biodiversity impacts assessment for its upcoming industrial implementations.</p>

4. RISK MANAGEMENT & HUMAN RIGHTS

4.2 Social Safeguards

An economic activity will only qualify as environmentally sustainable, i.e. be considered taxonomy-aligned, if it meets minimum safeguards in the areas of minimum international human rights, "procedures implemented by an undertaking that is carrying out an economic activity to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights".

Regulation (EU) 2020/52 of 18 June 2020, Article 18

In January 2022, Lhyfe adopted an Ethics Charter and a Code of Conduct. With these documents, the company clearly defines its ethical principles and values towards all of its stakeholders (employees, clients, suppliers and subcontractors).

The Ethics Charter and the Code of Conduct detail the standards and commitments of the company regarding:

- Compliance with local regulation
- Respect of individual rights
- Fair competition
- Relations with stakeholders
- Fight against corruption and bribery
- Quality and fairness of accounting, financial and management information
- Responsible use of data
- Health & safety
- Fight against discrimination and harassment
- Promotion of diversity
- Environmental protection

The Ethical Charter also provides for the creation of an ethics alert and whistleblowing system to report incidents of non-compliance.

Despite the fact that Lhyfe does not explicitly mention international standards such as OECD Guidelines for Multinational Enterprises or UN Guiding Principles on Business and Human Rights in its documents, EthiFinance considers that the company's ethical framework fully covers all relevant issues, thus, meets minimum safeguards in the areas of minimum international human rights.



In light of the elements above-mentioned and the information made available, Lhyfe is considered compliant with the Taxonomy's « *Minimum Social Safeguards* » criterion.

ANNEX 1 - References

In order to assess the alignment of Lhyfe's activities with the EU Taxonomy, EthiFinance consulted:

❖ A corpus of regulatory documents:

- The First Published Delegated Act on Climate (Annex 1 & 2), adopted on the 9th of December 2021
[https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PI_COM:C\(2021\)2800](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PI_COM:C(2021)2800)
- The Regulation (EU) 2020/52 of the 18th June 2020 on the establishment of a framework to facilitate sustainable investment
<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=EN>
- Taxonomy: Final Report of the Technical Expert Group on Sustainable Finance, March 2020.
https://ec.europa.eu/info/files/200309-sustainable-finance-teg-final-report-taxonomy_en
- Taxonomy Report: Technical Annexes – Updated Methodology and Updated Screening Criteria, March 2020.
https://ec.europa.eu/info/files/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en

❖ A corpus of internal documents provided by Lhyfe's team:

- Lhyfe Carbon Footprint – 2022
- Building Permit, February 2020
- Lhyfe's Code of Conduct, January 2022
- Ethics Charter, January 2022
- Investor Presentation, February 2022
- HSE Manual & Policy, February 2022
- Environmental Impacts Assessments, December 2019 & July 2021
- Several calls with Lhyfe's team including the CEO Matthieu Guesné, Nolwenn Belleguic and Antoine Hamon

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