

Traceability Guide

Introduction

1. Preliminary studies: Carbon footprint, externalities and avoided emissions

2. Data Collection at Source

3. Blockchain Integration

4. Conversion to tonnes of CO2

5. Tokenisation

6. Security and Compliance

Support and Development

Introduction

The traceability technology developed by Inuk represents a major innovation in the field of carbon credits. It allows the entire journey of a carbon credit to be tracked accurately, from the collection of raw data to its final sale. All of these steps are centralised on our IGLU platform. This approach guarantees total transparency and maximum reliability in the certification process. It also reduces the number of intermediaries, thereby ensuring a more direct link between the purchaser and the project owner.

1. Preliminary studies: Carbon footprint, externalities and avoided emissions

Before initiating the traceability process, each project undergoes a comprehensive carbon assessment. This initial assessment allows for the creation of a precise map of greenhouse gas emissions according to the three standardised scopes.

This initial phase is based on a rigorous methodology that includes the collection of historical data, analysis of existing processes, and comprehensive identification of the main sources of emissions. This study is based on physical

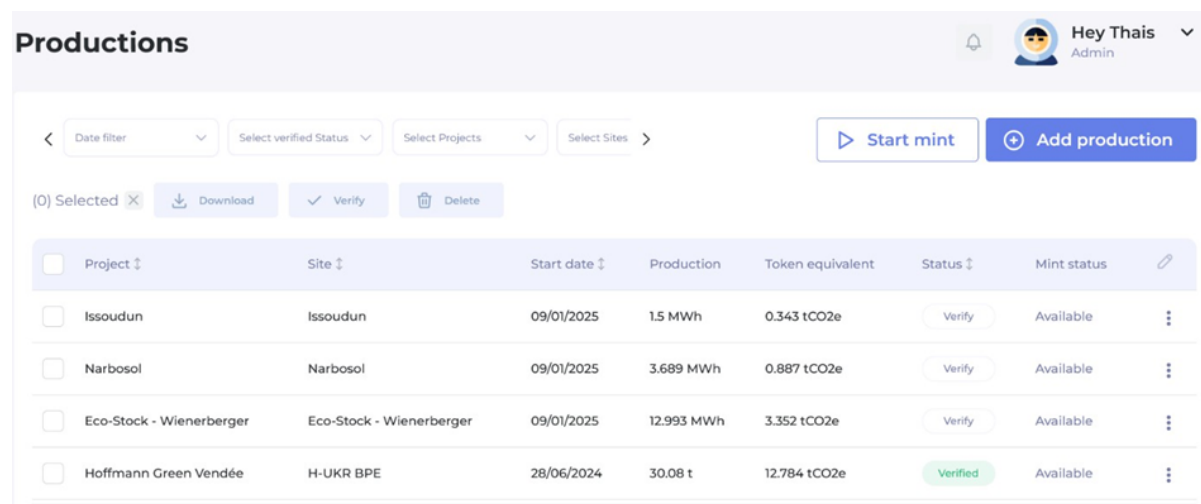
data and covers the construction, operation and maintenance of the project throughout its entire life cycle.

Positive and negative externalities are also studied (impact on biodiversity, air and soil pollution, land artificialisation, social and community impact, etc.). Life cycle assessments (LCA) are also conducted on the project's main equipment.

Details of these steps are available in our Methodological Guide for project developers.

2. Data Collection at Source

At the heart of our system is a rigorous process of collecting data directly from project developers. This crucial step relies on a network of IoT sensors and energy monitoring systems installed at project sites. These devices continuously transmit project production data, which is used to calculate avoided emissions in real time.



The screenshot shows a web interface titled 'Productions'. At the top right, there is a user profile for 'Hey Thais Admin'. Below the title, there are filters for 'Date filter', 'Select verified Status', 'Select Projects', and 'Select Sites'. To the right of these filters are two buttons: 'Start mint' and 'Add production'. Below the filters, there is a toolbar with '(0) Selected', 'Download', 'Verify', and 'Delete' buttons. The main part of the interface is a table with the following columns: Project, Site, Start date, Production, Token equivalent, Status, and Mint status. The table contains four rows of data for the date 01/01/2025.

Project	Site	Start date	Production	Token equivalent	Status	Mint status
Issoudun	Issoudun	09/01/2025	1.5 MWh	0.343 tCO2e	Verify	Available
Narbosol	Narbosol	09/01/2025	3.689 MWh	0.887 tCO2e	Verify	Available
Eco-Stock - Wienerberger	Eco-Stock - Wienerberger	09/01/2025	12.993 MWh	3.352 tCO2e	Verify	Available
Hoffmann Green Vendée	H-UKR BPE	28/06/2024	30.08 t	12.784 tCO2e	Verified	Available

Figure 1 Extract from the daily production report for 01/01/2025 – source: IGLU

The security of this data is ensured by transmission protocols that guarantee its integrity from the outset. Each piece of data is time-stamped and undergoes automatic and human validation to detect any potential anomalies. This approach establishes a solid foundation for the rest of the certification process.

3. Blockchain Integration

Once collected, the data is integrated into our blockchain system. This step transforms raw data into certified, immutable information. **Each batch of data is given a unique identifier and is accompanied by essential metadata that allows its origin and context to be traced.** Blockchain technology ensures that this information cannot be modified once it has been recorded.

The decentralised approach enhances the reliability of the system by ensuring that each record is verified and validated by independent parties. The complete history of changes is retained, creating an unalterable audit trail.

Inuk technology operates on the basis of a *smart contract* and two separate tokens:

- **The ACO2 token** represents the volume of CO2 avoided by a project owner over a given period of time. It is calculated on the basis of actual physical data, collected directly from the project owner's site. It can be traded directly via the IGLU platform.
- **The ADDI token** makes it possible to track the financing of additionality. Each time an ACO2 token is sold, an ADDI token is created, making it possible to accurately and tamper-proof track the amount of additional financing generated by this transaction.

transaction. It is then allocated to an additional project in order to guarantee traceability.

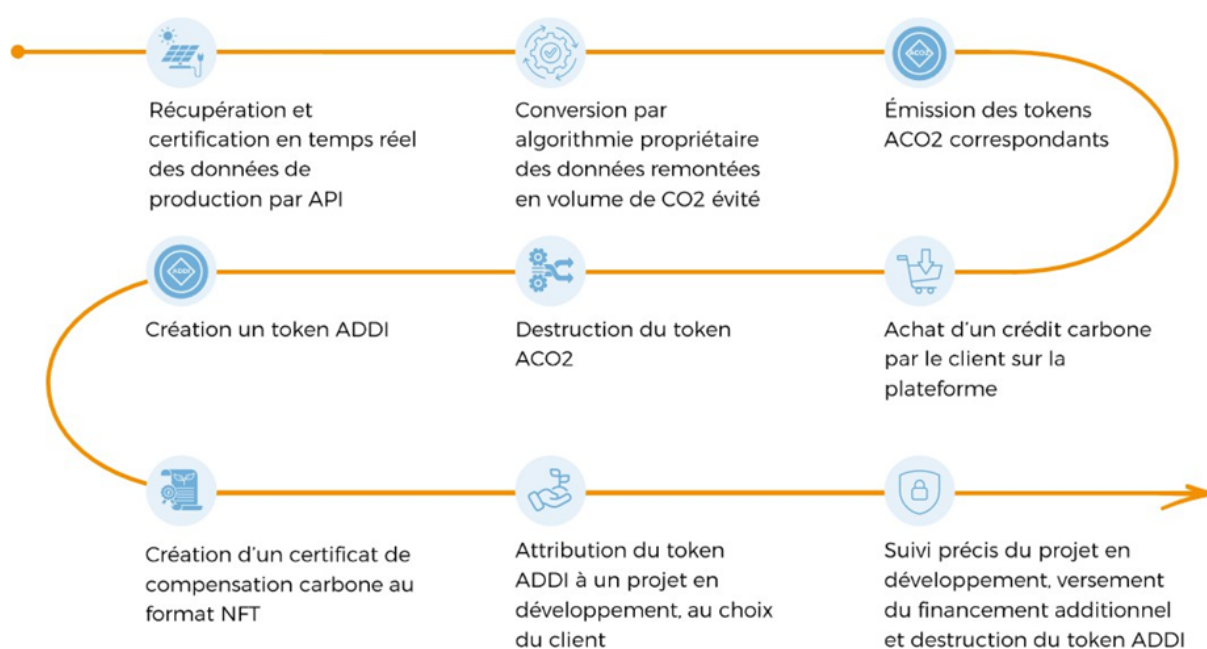


Figure 2 Schematic description of the process of creating and tracking Inuk carbon credits on the blockchain – Source: Inuk

4. Conversion to tonnes of CO2

Converting data into tonnes of CO2 avoided is a critical step in the process. Our system applies rigorous calculation methodologies based on international standards and tailored to the specificities of each project, enabling us to determine a conversion factor (CF) expressed in grams of CO2 equivalent avoided per functional unit (usually kWh).

A customised CF is determined for each project. The studies and calculations used to determine it are available on our IGLU platform. With each conversion, the CF is indelibly recorded, making it tamper-proof.

Conversion Factors

<

Date filter

Select Producer

Select Projects

Select Sites

>

Project	Site	Start date	Conversion Factor
Eco-Stock - Wienerberger	Eco-Stock - Wienerberger	01/04/2024	258 gCO2e/kWh
Eco-Stock - Wienerberger	Eco-Stock - Wienerberger	01/06/2024	258 gCO2e/kWh
Eco-Stock - Wienerberger	Eco-Stock - Wienerberger	01/01/1970	0 gCO2e/kWh
N/A	N/A	01/01/1970	0 gCO2e/kWh
N/A	N/A	01/09/2020	0.226 gCO2e/kWh

Project

Eco-Stock - Wienerberger

Organization

Eco-Tech Ceram - ETC

Producer

ETC Invest

Project

Eco-Stock - Wiene...

Site

Eco-Stock - Wiene...

Ratio

258 gCO2e/kWh

Start date

01/04/2024

Status

Used

Figure 3 Extract from the Conversion Factor (CF) Table - source: IGLU

5. Tokenisation

The final stage of the technical process involves tokenising verified carbon credits. Each tonne of CO2 avoided is converted into a unique digital token, enriched with all the project's metadata. These tokens are non-fungible digital assets (NFTs) that retain the complete history of their creation and guarantee that double counting is impossible.

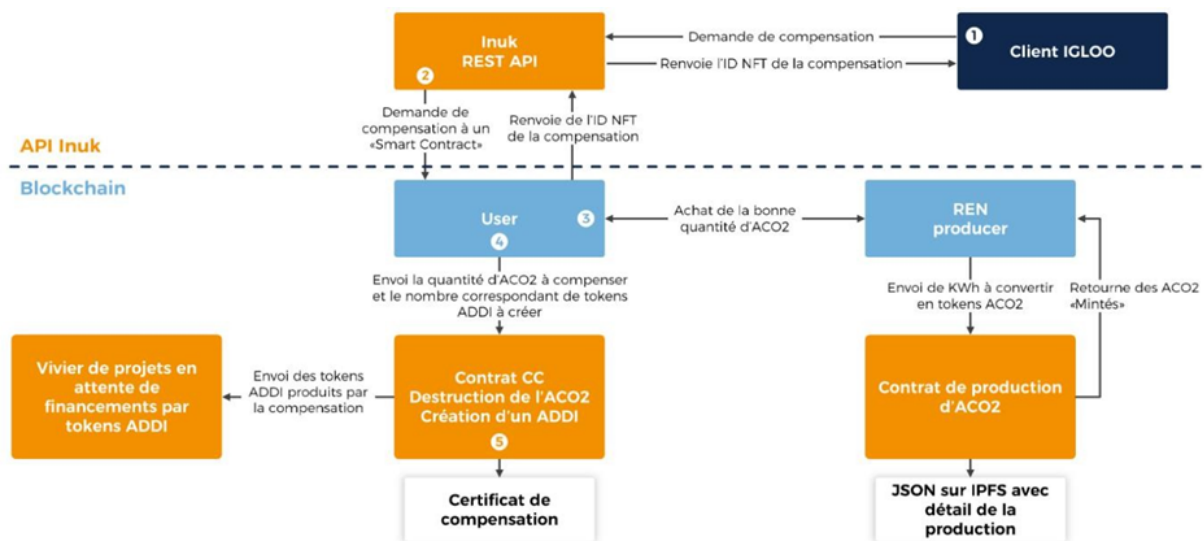


Figure 4 Schematic description of the carbon credit tokenisation process – Source: Inuk

These tokenised carbon credits are traded on our IGLU platform, which is specially designed to maintain maximum security. The platform allows buyers to access all information relating to each credit: its origin, its environmental impact, and the complete history of its certification.

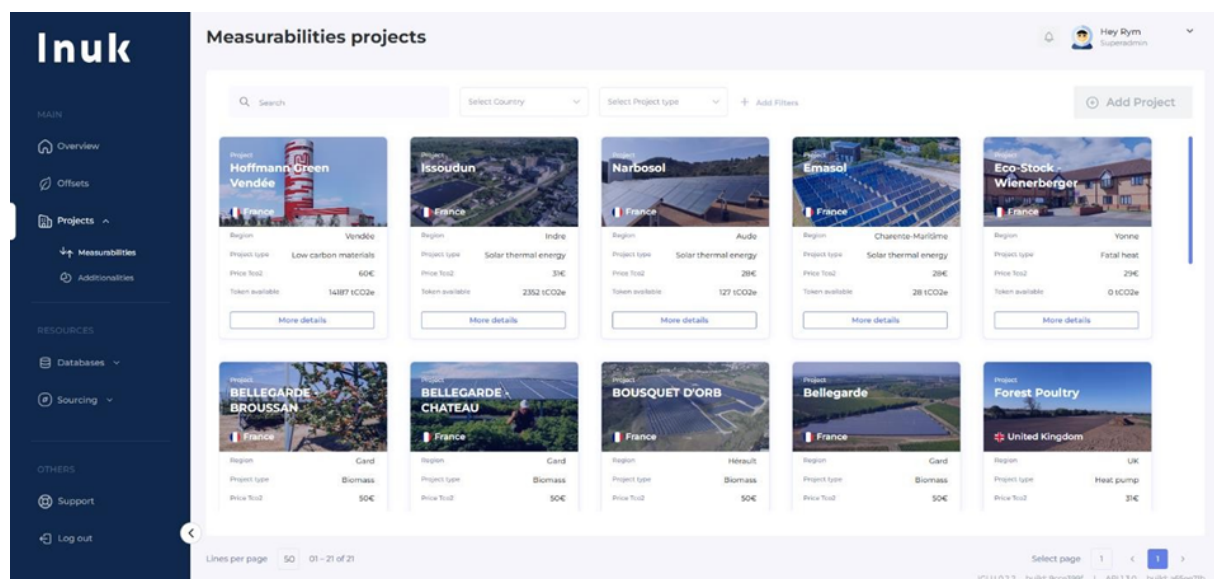


Figure 5 Extract from the catalogue of projects in operation on the IGLU platform - source: IGLU

6. Security and Compliance

Security is at the heart of our system. All data is protected by end-to-end encryption, and access to the various features is strictly controlled. Our infrastructure is regularly audited by independent experts to ensure its resistance to intrusion attempts. All our digital tools are hosted within the European Union (EU).

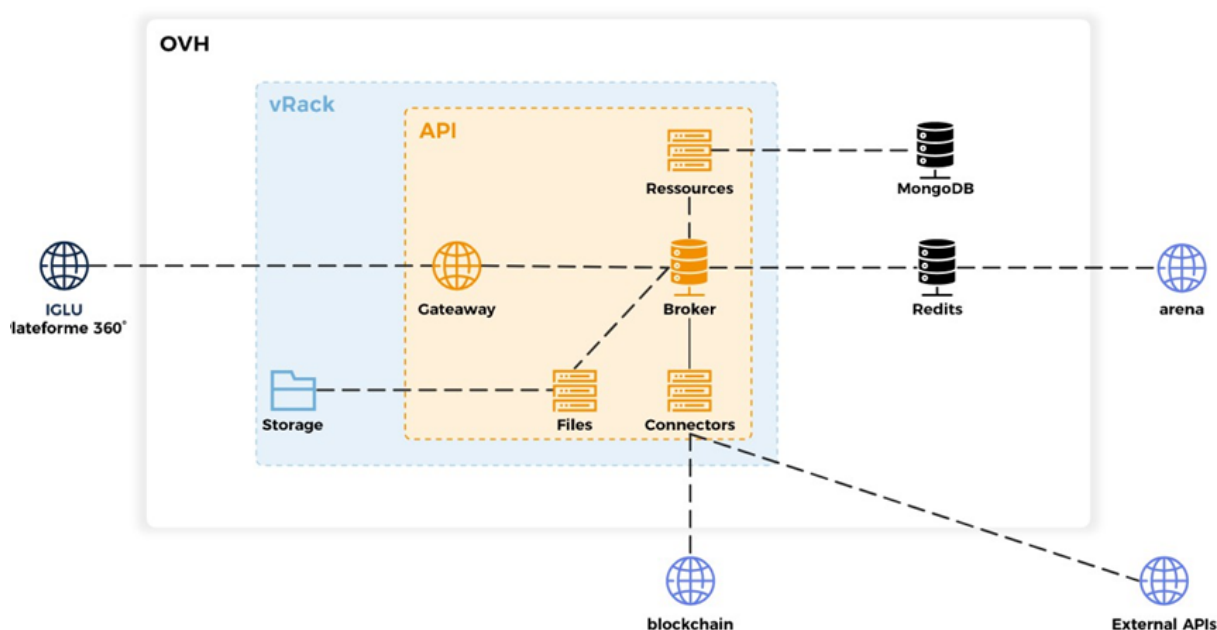


Figure 6 Schematic description of the data storage architecture - Source: Inuk

Regulatory compliance, particularly with regard to personal data protection (GDPR), is ensured by a technical architecture specifically designed to meet the most stringent requirements. Regular backup processes and business continuity plans guarantee the resilience of the system.

Support and Development

Our technical team provides ongoing support to project leaders and platform users. Regular training sessions are organised to ensure optimal use of the tools.

The system is subject to continuous improvement, regularly incorporating new market standards and technological advances.