

HBAR Foundation

Sustainable Impact Fund

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**Chair - GBBC Interwork Alliance, Carbon Emission Task
Force**



Our Commitment

The Hedera ecosystem commitment goes beyond being low carbon footprint public network. Through the HBAR Foundation Sustainable Impact Fund, and partner organizations, the Hedera ecosystem aligns with global initiatives to combat climate change with a shared mission to bring the balance sheet of the planet to the public ledger.

- World changing projects working with the Hedera Governing Council and sustainable brands including Avery Dennison, ServiceNow, and Electricite de France
- Hedera is governed by the world's leading organizations diversified across industries and geographies.
- Digital Public Goods that enable the infrastructure of tomorrow, today.



The Balance Sheet of the Planet will live on a Public Ledger.

A regenerative economy requires markets that are transparent and accessible to ensure auditable, discoverable, and liquid qualities. Transparency and access to data and information are essential for these markets to function properly.

- **Auditable**
- **Data & Information Discoverable**
- **Liquid**

Goals of the HBAR Foundation Sustainable Impact Fund

1. Make Climate Finance Auditable

Understand flows of finance linked to auditable roles within environmental projects

2. Digitize & Open Source Methodologies

Creating digital rulesets through a policy workflow engines that can be executed to create trusted assets that are comparable.

3. Scale Validation & Verification

Scaling up validation and verification, and audit, processes to ensure equitable opportunities and consistent verification.

4. Discover a Global Carbon Price

Enable a global based price based on attributes across the climate market through machine readable data structures rather than methodology and metric tonne.

5. Make ESG Reporting Credible

Developing tools for trusted emissions accounting and ESG reporting to ensure credibility and accuracy based on real data.

Market Supply

Sustainability Projects

Methodologies (Policies)
(e.g. VERRA, Gold Standard, GreenHouseGas, etc.)

Actors (people, orgs, devices)
Digital Identity/Signatures

Data
Devices Systems People

Project Types

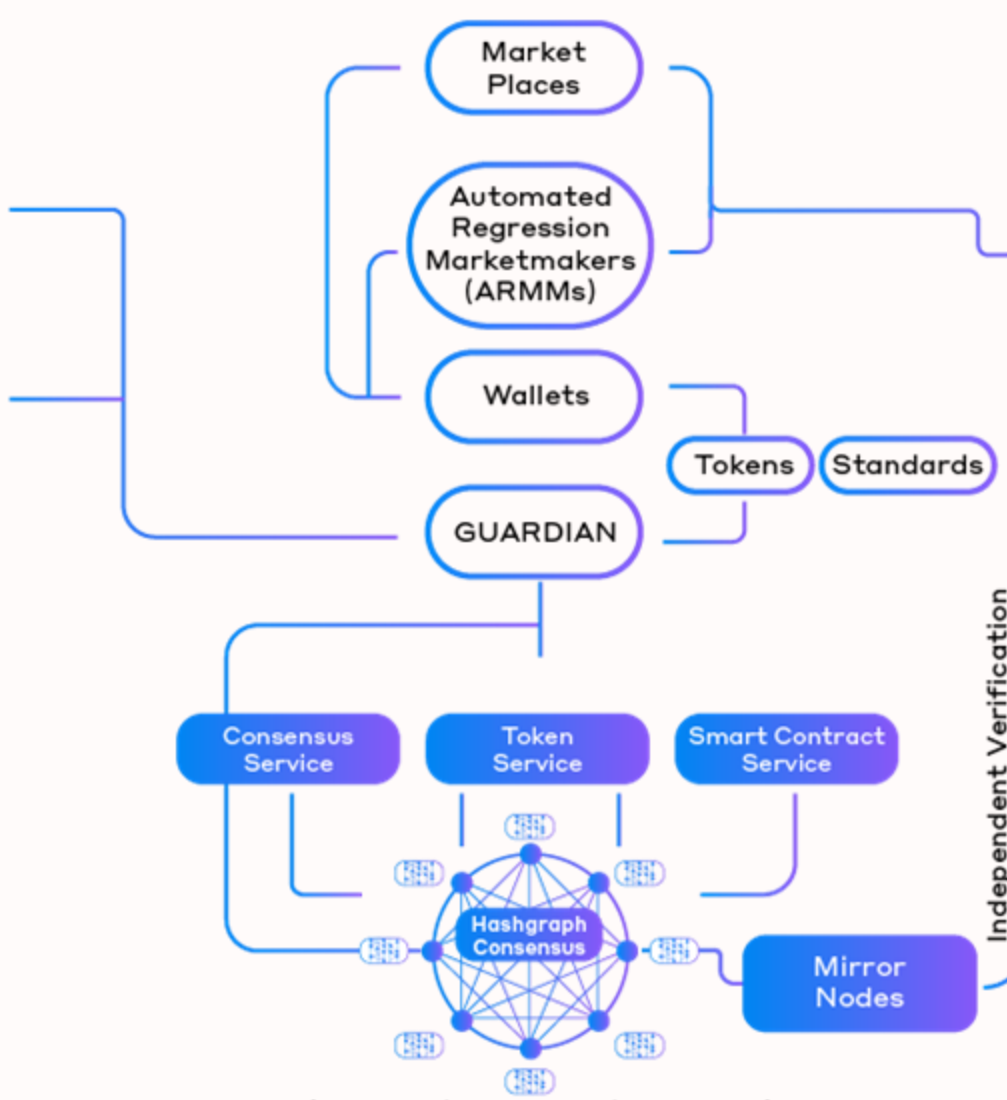
Carbon

- Renewable Energy
- Agri Regen
- Reforestation
- Biochar
- Emissions Tracking

SDG/Nature

- Water Rights
- Biodiversity
- Habitat Renewal
- Circular Economy

Sustainability Market Infrastructure



Hedera Mainnet & Mirror Nodes

Market Demand

Actors Digital Identity/Signatures

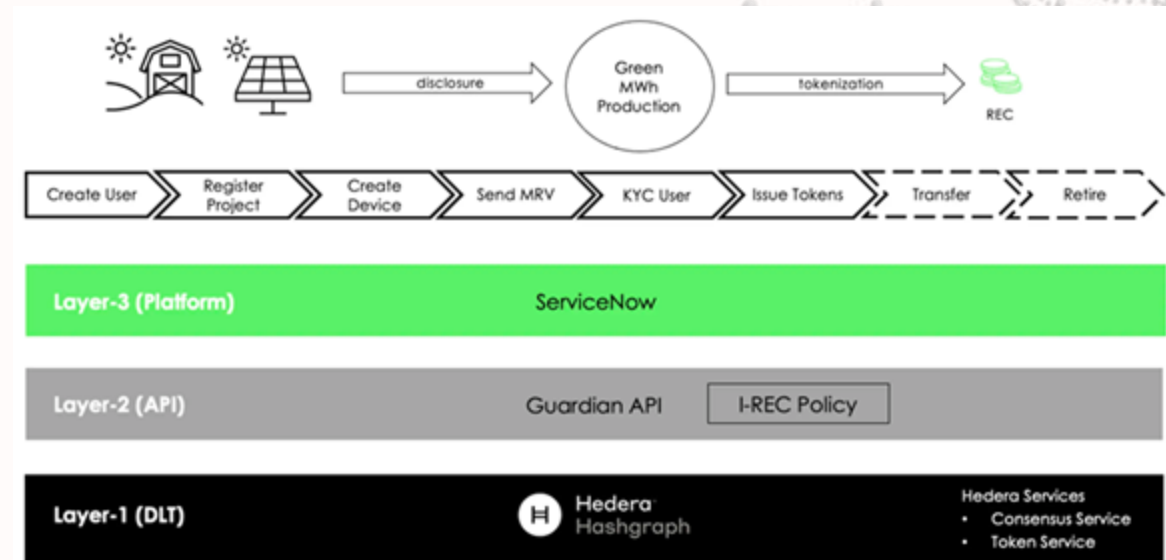
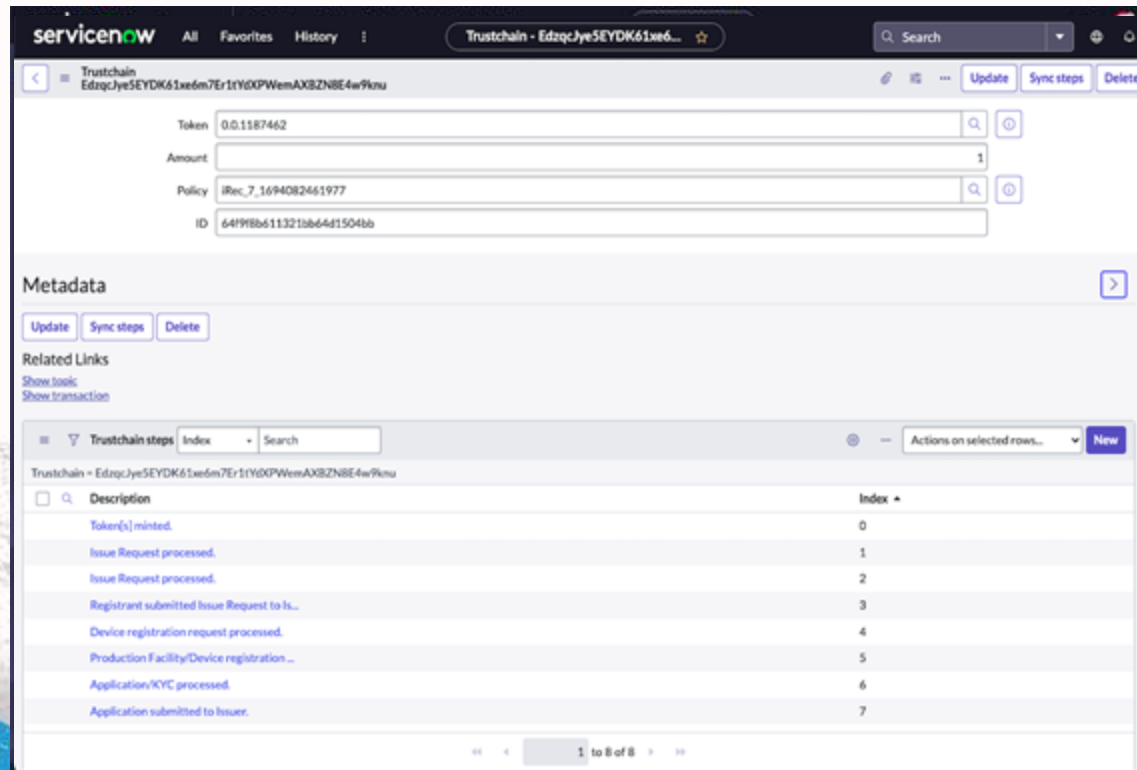
- Individuals
- Enterprises
- Governments
- Auditors
- Regulators

Use Cases

- Carbon markets
- Nature markets
- Offsetting
- Green Bonds
- Retail/Rewards
- Supply Chain Traceability
- Regulatory Compliance

ServiceNow

The ServiceNow ESG ReFi application empowers companies, organizations, and their ecosystems to generate climate assets by seamlessly integrating with the Hedera Guardian open-source tokenization engine.



Tokenized climate assets offer several advantages over conventional climate assets, including:

- Facilitating the establishment of certified climate asset supplies grounded in precise Measurement, Reporting, and Verification (MRV) data.
- Providing transparent verification of origin and audit data through dedicated interfaces and public blockchain explorers.
- Effectively mitigating the risk of double counting through a verifiable on-ledger retirement procedure.

< HASH: CmgJxokAqUUsjQXilUgSxmTbd51hUymfTevzg1DYrbxn **Verified Presentation**  | [VP File](#)

Token & Issuer | [VC File](#)

Token	Receipt Name	Token amount	Mint date
0.0.3918619	Virtual User 1	100	2023-03-27T12:14:56.452Z

This Carbon Offset Claim has met all the requirements as issued in the policy secured to this token.

Verified Signature: eyJhbGciOiJFZERTQSIsImI2NCi6ZmFsc2UsImNyaXQiOlsiYj0iIl19..kfnTjihMaySYcSt93vLPuGRbuvPoJGe_T9_tthi555aBUcC63WkCHIUDEJ4Bfxvn2A7wOByf8oUL0RBoWCKDw

Policy Overview | [VC File](#)

Policy Name	Description	Version	Issuer Name
Measured and Managed Energy Cooking Policy	This policy applies to projects implementing technologies that mitigate GHG emissions by measuring energy or fuel consumption in cooking devices directly.	Dry Run	Administrator

StandardRegistry [VC File](#)

Account Creation

Parties: Administrator

Policy [VC File](#)

Policy Created

Parties: Administrator

Project Listed [VC File](#)

Project Listing Application reviewed and approved by Standard Body.

Parties: Administrator

PDD Reviewed [VC File](#)

Project Design Document reviewed and approved by VVB.

Parties: Virtual User 2

Monitoring Report Reviewed [VC File](#)

Monitoring Report reviewed and approved by VVB.

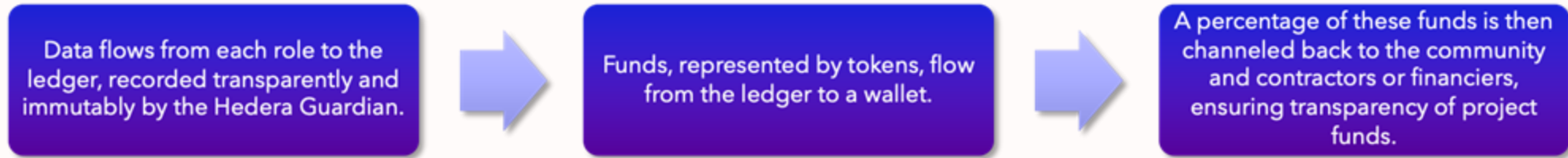
Parties: Virtual User 2

Token

Parties:

PUBLIC FINANCIAL TRANSPARENCY IN THE VCM

By linking methodologies to actors fulfilling roles within the methodologies, we have the opportunity to ensuring that every credit is backed by verifiable data. The Guardian on Hedera is setting new standards for transparency, accountability, and financial equity in the carbon market. Through understanding the flow of finance into the same accounts that attest to data we can better understand the relationship between who gets paid and who is attesting to verifiable information.



Transparency & Auditability

The Hedera Guardian champions a transparent and auditable trail for all environmental credits, instilling trust and credibility in the market.

Financial Clarity

The Hedera Guardian offers the opportunity for project proponents to demonstrate financial transparency enabling stakeholders to trace and understand financial flows, thereby promoting financial equity.

Empowerment through Information

With every transaction and data point immutably recorded, The Hedera Guardian ensures that all stakeholders have access to transparent and verifiable information, fostering informed decision-making.

Tolam's Approach



Hedera's Guardian, adds a full trust-chain of verified ecological data

A native on-ledger payment process adds transparency to the distribution of funds

Tolam's Price Oracle provides a credible, data-driven price recommendation

Trusted assets being exchanged **equitably**, with **trusted prices**, and **at scale** - implemented to encourage **reduce emissions**

The Automated Regression Market Maker 'ARMM' will bring discovery, liquidity and efficiency

Retirement flow + reporting APIs + Partner Applications APIs

Measuring Supply Chain Emissions & Achieving Net Zero

Guardian dMRV Protocol

I want to transparently show the sources of my emissions roles and actors following a methodology in a digitally traceable manner to the sensor level that is easily shown by tokens following standards

Explorer/Mirrors

I want to have a display of all my emissions that is discoverable for easier reporting to supply chain stakeholders, regulators and customers to show my improvement in reductions

ARMMS

Where I cannot reduce I want to be able to offset my emissions with high quality and transparent carbon credits to achieve carbon neutrality/net zero.

atma.io



Hedera



THE HBAR
FOUNDATION



Avery Dennison's atma.io connected product cloud to utilize the Hedera network to account for carbon emissions of billions of unique items

Thank You!

