



Blockchain Manifesto - Pillar II

Industry Contributions to Sustainability Challenges

INTRODUCTION



As part of the ongoing efforts under the [EU Blockchain Manifesto](#)'s second pillar, focused on Social Impact & Sustainability, a series of inquiries were initiated to gather insights from leading industry projects in the blockchain and energy sectors on how their projects could help address existing challenges with the sustainability agenda.

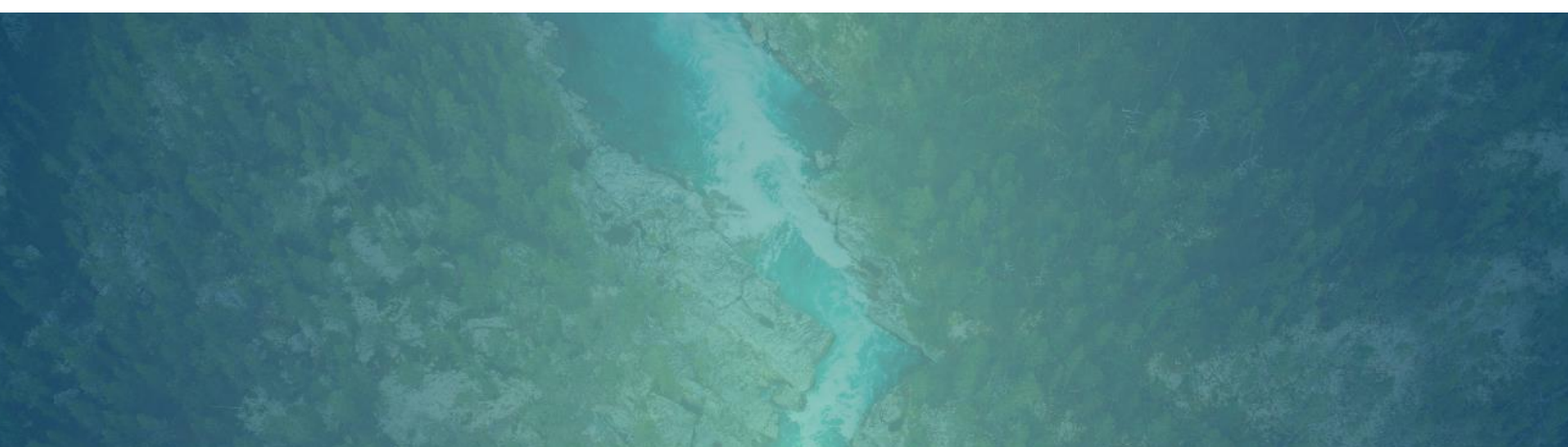
This report builds on previous discussions with sustainability experts, who helped define these challenges, and compiles the responses from these projects to details their approaches to the identified sustainability challenges. The aim of the report is to understand how innovative technologies are being applied to enhance sustainability in various industries.

The previous expert discussions highlighted **three main challenges**:

1. The need for a clear and universally accepted definition of sustainability.
2. The issue of greenwashing.
3. The lack of political will, financial backing, and cohesive action between national and EU entities.

They also suggested pathways forward, including embedding sustainability into the societal fabric, leveraging technology, and creating collaborative platforms.

To continue this dialogue, we solicited detailed responses from selected industry leaders. They were asked how their projects address these sustainability challenges and align with the proposed pathways. The responses were structured around these focal points, providing a comprehensive overview of industry contributions to sustainability.





DEMIA

[Demia](#) is pioneering the scalability of carbon markets by revolutionising data logistics with innovative technologies. The company enhances collaboration among projects, auditors, and certifiers through secure, shareable, and accurately measurable data. By simplifying data logistics with advanced tools such as plug-and-play edge devices and open APIs, Demia drives sustainability forward.

At the core of Demia's contributions are several key functions:

- **Data Security:** Demia builds trust in project data by securing it from the source using blockchain technology and advanced encryption, ensuring that it is protected and verifiable. This approach streamlines data logistics for developers and operators, enhancing data reliability.
- **Assessment and Deployment:** Demia removes obstacles in the data handling process, enabling the use of advanced data analytics that align with industry standards. This capability provides stakeholders with immediate, actionable insights into the environmental impact at project sites.
- **Monitoring and Analytics:** By leveraging its data focused blockchain, digital signatures, and peer-to-peer access control to ensure data integrity and provenance, Demia increases auditors' confidence in project data, streamlining auditing processes and enhancing the quality and integrity of environmental credits.
- **Confidence and Veracity:** Demia reduces typical audit durations by providing robust data assurances through real-time data verification and advanced analytics, enabling more frequent and reliable auditing cycles.
- **Unlocking Value:** Demia accelerates the auditing and certification processes, helping project operators generate revenue more quickly and enhancing the value per credit through superior data quality and minimise risk.

Demia's vision and technological approach are geared towards building a global community committed to sustainability. Their Demia Zero-Trust Data Fabric technology fosters a collaborative environment where project operators and developers can publish dynamic data and streamline verification processes. This platform facilitates real-time, remote coordination with auditors and certifiers, essential for buyers who depend on trustworthy sustainability credits.

Furthermore, Demia focuses on identity security and accessibility, developing a self-sovereign identity suite tailored for carbon market stakeholders. This suite ensures data accessibility is restricted to those who need it, thereby maintaining control over data at the project level and safeguarding data integrity with layered encryption and digital signatures.

Through these efforts, Demia is not just supporting, but actively advancing transparency and efficiency in sustainability practices globally. They address the entire data lifecycle from creation to certification, underscoring the profound impact digital innovation can have on achieving sustainability goals.

Description

Demia is a carbon management platform, enabling projects to be audited and certified efficiently while increasing the value of their credits.

Founded: 2023

Focus area: Global

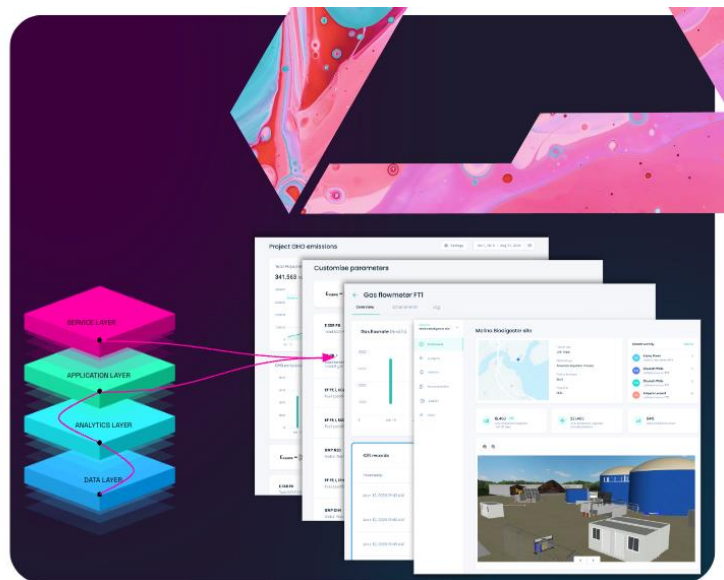
Blockchain application

Our implementation of blockchain streamlines interactions between project operators, auditors and certifiers. We focus on data security and access using immutable data, helping to scale the supply of projects while creating positive impact. It achieves this with an ecosystem focused on Open Collaboration hosted by Gold Standard, enabling trust and transparency.

Impact

At Demia, we're working to democratize access to impact data, empowering communities to combat climate change, promote social justice, and drive economic prosperity. Our platform enables informed decision-making, fostering collaboration, and increasing the integrity of carbon markets.

We directly impact SDGs 3, 6, 7, 8, 9, 10, 11 12 and 13.



In response to the challenges and pathways identified in the EU Blockchain Manifesto report on sustainability, Demia provided detailed insights on their approaches:

1. **Understanding Sustainability:** Demia prioritises educational initiatives and clear communication to enhance stakeholders' understanding of sustainability. The organisation supports the development of guidelines that define clear frameworks, aiming to demystify sustainability concepts, particularly through their work with the Gold Standard and the Digital Infrastructure Working Group.
2. **Combatting Greenwashing:** Demia tackles greenwashing by leveraging advanced data management and verification technologies. Their platform is designed to authenticate sustainability claims by enhancing transparency and ensuring the integrity of data across the carbon market value chain. This approach helps stakeholders distinguish between genuine sustainability efforts and superficial claims.

3. **Political Will and Financial Backing:** Demia is actively engaged in dialogues with policymakers and industry leaders to foster supportive policies and secure financial investments that drive sustainability projects. They focus on overcoming regulatory hurdles and facilitating investments that align with sustainable practices.

Demia aligns with the report's proposed pathways by embedding sustainability deeply within their technology and business models. They champion the use of technology as a foundation for sustainable practices and are committed to collaborating on platforms that bridge policy-making and industry innovation, promoting a unified approach to sustainable development.

FileChain

Led by Sylvain Vittecoq, [FileChain](#) is at the cutting edge of transactional platforms such as the healthcare sector in France or the supply chain management for the food industry between the US and China. Using non-public ledger technologies, FileChain revolutionises how contractual workflows and value transfers are handled across a variety of industries. The platform guarantees privacy, consent, and efficient data dissemination on a grand scale, enabling entities like independent companies, individuals, and autonomous systems to transact over dedicated platforms.

FileChain's core offerings include decentralised transactional platforms that provide end-to-end privacy, traceability and reduced liability through controlled data dissemination. This supports critical business workflows and private transfers of both fungible and non-fungible assets, ensuring transparency, due diligence, and compliance with regulations such as GDPR.

Innovatively integrating Distributed Ledger Technology (DLT), FileChain delivers enterprise-grade, integration-ready solutions designed for ease of adoption and a lower total cost of ownership. The platform comprises FileChain Ledgers and FileChain Treasuries, enhanced by customised applications that cater to specific customer needs. These applications facilitate functionalities like provenance tracking and rule-based automation, streamlining transactions across decentralised collaborative platforms.

FileChain's commitment to scaling decentralised platforms is evidenced by its comprehensive toolkit that allows businesses to engage with blockchain technologies effortlessly. The company supports this with consulting services that help refine decentralised IT solutions, complemented by an SDK that simplifies the building of decentralised applications for engineers without in-depth knowledge of blockchain or cryptography.

To ensure the scalability of large projects, FileChain has formed strategic partnerships with numerous system integrators, promoting rapid deployment and maintaining high standards in engineering and deployment. Through these efforts, FileChain is pioneering a new standard for business transactions, enhancing efficiency and security in digital interactions across the globe.

Description

FileChain provides large-scale transactional platforms for B2B in contract management, supply chain, cross-border trading, shipping, fintech, legaltech, healthcare as well as NFT marketplaces for B2C for instance.

Founded: 2019

Focus area: Mostly Europe & USA

Blockchain offering

All FileChain platforms are permissioned ledgers with onchain storage (encrypted at rest directly on ledger, up to 500MB per document or data payload), full end-to-end privacy, no smart contract code, no gas fee, no stacking fee and massive scale for millions of transactions per months per ledger.

Impact

FileChain redefines the use of DLT away from cryptocurrencies & meme coins into solving actual painpoints to streamline B2B transactional platforms in cross-border trading, cross-border payments, provenance, due-diligence, etc.

All parties work with and trust a common platform they run to dramatically reduce their overall hosting footprint.



To benefit from FileChain radical innovation : info@filechain.com

FileChain, under the leadership of Sylvain Vittecoq, offers a detailed perspective on addressing the sustainability challenges outlined in the EU Blockchain Manifesto. Their approach centres on utilising non-public ledger technologies to enhance the transparency, traceability and integrity of supply chains. FileChain's technology facilitates accurate provenance tracking and compliance, enabling stakeholders to differentiate authentic sustainability efforts from greenwashing effectively. They emphasise the significance of providing accurate data to all business actors, ensuring that end consumers can make informed decisions favouring sustainable products.

Additionally, FileChain aligns strongly with the suggested pathways forward, recognizing the potential of technology to foster sustainability. They underscore the importance of education in the business sector regarding new technologies like non-public ledgers, which are crucial for addressing sustainability challenges effectively. FileChain's commitment to leveraging technology for scalable and inclusive sustainable practices reflects a proactive approach to integrating advanced digital solutions in business operations, aiming to streamline transactions and reduce the environmental footprint of data storage. This holistic approach not only supports current sustainability goals but also sets a foundation for future advancements in the industry.

ATTRIBUTES

[Attributes](#) reached out in response to the LinkedIn publication from INATBA, expressing interest in engaging further with the initiative. Attributes, originally founded in 2019 as TEO-The Energy Origin, focuses on tracking the ESG qualities of energy from production to consumption using blockchain technology. The company combines a rich mix of expertise to drive dynamic synergies towards ambitious goals in the energy sector.

Attributes is dedicated to enhancing transparency in the gas sector through blockchain technology. The company's expertise allows it to trace natural gas from production to end-customers, turning gas volumes and ESG impact information into digital fungible certificates that bolster trust and communication. The team at Attributes includes blockchain specialists, developers, and business project managers who work collectively to support the gas value chain's transition towards greater transparency and accountability.

In 2021, Attributes was recognized with the Solar Impulse Efficient Solution Label, affirming its positive impact in balancing environmental protection with financial viability. As a member of the Climate Chain Coalition, Attributes engages with other blockchain actors to create synergies aimed at achieving rigorous climate action goals. Additionally, Attributes contributes to the Fédération Française de la Blockchain, addressing strategic issues brought forth by blockchain technology. The company is also in the process of obtaining B Corp certification, demonstrating its commitment to meeting the highest societal and environmental standards.

Attributes innovates in response to the increasing regulatory and consumer demands for traceability and transparency in sustainability. The company secures the exchange of data using blockchain technology, enabling a consolidated overview of diversified ESG data portfolios for its clients. Attributes works closely with producers and industrial clients to support their sustainable development strategies through improved traceability and transparency of green energy sources, positioning itself as a pivotal player in the energy industry. By using blockchain to enhance transparency and traceability across the gas value chain, Attributes empowers both producers and consumers to make informed decisions about the sustainability of their energy consumption.

CONCLUSION



The feedback from industry leaders like Demia and FileChain highlights a robust readiness to tackle sustainability challenges using advanced technology. These contributions are invaluable as we look to refine our strategies and foster deeper collaboration across sectors. As we move forward, the insights provided will be instrumental in guiding our efforts to build a sustainable future, leveraging blockchain and other technologies to make significant impacts.

This initiative confirms the commitment across industries to embrace sustainability, innovate responsibly, and work collectively towards achieving more substantial, sustainable outcomes. We look forward to continuing these conversations and catalysing action through upcoming roundtables and collaborative efforts.

ACKNOWLEDGMENTS



This research project is part of the Pillar II of the Manifesto initiative, which focuses on sustainability & social impact of blockchain technology. The activities under this pillar are organised and led by:

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Please reach out for any questions or to contribute to the activities of the Manifesto initiative.

