

**GDF GLOBAL SUMMIT:
DIGITAL ASSET COP26 DIALOGUES
Summary**

Chaired by Anastasia Kinsky, GDF, and Bryony Widdup, DLA Piper
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Introduction

In light of the conversations at COP26, GDF convened the global crypto and digital asset community to discuss the role of digital assets in Net-Zero targets, both from the perspective of crypto's own ESG credentials, and as a solution to financing the transition to a sustainable economy.

The Cambridge Centre of Alternative Finance (CCAF) gave a presentation to set the context for the attendees by sharing data and processes for assessing the carbon footprint of crypto. The RFI Foundation joined to share input on the considerations for the industry. The Summit chairs then opened the floor to the delegates to gain their insights.

PRESENTATIONS:

Michel Rauchs, CCAF

- Covered the challenges of making a robust assessment of the carbon footprint of crypto, including the fact that most estimations are taken at one point in time
- There are three steps to creating a robust assessment of carbon footprint, each of which is a significant component on its own:
 1. Power consumption: continuous estimates of how much Bitcoin is mined
 2. Hashrate: where is the mining located? Both the country and at a regional level, on a continuous basis
 3. Local power mixes and average carbon intensity of every local source
- Looking to improve collaboration with miners in their research
- Open questions for industry:
 - Model assumptions: we need data on the hardware model makes
 - Methodological trade-offs: looking to make sure that we capture off-grid mining too



- CCAF are looking to approach other assets and networks beyond Bitcoin
- Need to look at further scope 2/3 emissions - understand the value chain, where derivatives fit in, how liable is an exchange, .etc.

Blake Goud, RFI Foundation

- We need to consider the near- and long-term goals. 2050 may seem far off, but there will be a global stock take in 2023, and new targets expected to be set in 2025
- We need to define the boundaries around what we can account for in carbon emissions - set the scope throughout the value chain
- Scope 3 includes investments: how much are digital assets being used in sustainable investments
- Consider the additionality of doing something with digital assets vs traditional forms of banking

ROUNDTABLE DISCUSSION:

Participants:

Martha Reyes, Head of Research, Bequant

Frederik Gregaard, CEO, Cardano

Laura Douglas, Senior Associate, Clifford Chance

Mark Blick, CEO, Diginex ESG

Harry Hughes, Chief of Staff, Egonex

Tanya Woods, General Counsel, Hut8 Mining

Richard Peers, Founder, Responsible Risk

Dr. Peter T. Golder, COO & Global Head of Commercial, Six Digital Exchange (SDX)

Borys Pikalov, Co-Founder, Stobox

Kirsteen Harrison, Environmental Consultant, Zumo

David Ehrich, Executive Director, AIR

Doug Miller, Business Development Lead, EnergyWeb

Key points:

Crypto's ESG credentials:

- This is the big opportunity for the crypto sector to lead the way, showing why the technologies that we espouse do set an example for other industries
- We need clarity and standards. GDF should convene standardized indicators that companies should be reporting on, and develop the industry-wide

standard for ESG reporting. There is a lack of standards or best practices available for miners in this space.

- Despite the complexities, we must remember that compared to other industries/other sectors, we are in a stronger position as we are focusing on electricity consumption: the supply chain is in many ways simpler, and the data is there if we share it.
- We need to collaborate and be honest with our successes and failures, and hold each other accountable. We are either all winners or we are all losers in this space. There is no competition to be had.
- Our biggest risk is our own public perception of energy use. Until we show that we are taking it seriously and taking action, there is a huge risk that the general public will not see beyond this problem.
- We must take the G and the S seriously too, throughout the supply chain.
- Need to think longer term about where we are heading, rather than simply where we are today: If we were to replace traditional finance, what would our energy usage and environmental impact be?
- Christmas lights at times have bigger environmental impact than the crypto industry.

Community approach and initiatives:

- This community responds quickly and actively to internal and external pressures, and is highly engaged on this already. The user base wants improvements, especially on waste issues. They are extremely aware of the impact of crypto, perhaps even more so than institutional investors.
- The recent narrative has sent our community into rapid discussion and collaboration. We have seen the launch of initiatives such as the Bitcoin Mining Council and the Crypto Climate Accord.
- The Crypto Climate Accord is an industry initiative with a growing community of over 180 companies globally from both crypto and climate energy sectors moving to decarbonize crypto, and use decentralization to prove it.
- Within this community we are developing new open source solutions using decentralized technologies to achieve three things:
 1. Make it easier to come up with the energy estimate or carbon estimate for a given type of productivity, meaning that those associated with mining or holdings and transactions
 2. Make it easier to search for renewable energy and carbon products using those technologies where the whole lifecycle of these products is captured on a public chain

3. Prove it - verify not just that we have made progress but also to highlight some of the areas where we see big opportunities
 - Industry initiatives are working on developing tools such as mining pool operators - either to verify the environmental credentials of their pool, or cover the energies of their entire pool and bake it into the pool fees on the demand side of the market.

Data sharing:

- It is important to get our facts right about our carbon footprint, and the nuances between blockchain networks.
- Where we have open ecosystems, with fluidity and anonymity, it is harder to trace the impact.
- We must share the data: have the metadata on-chain so that we can understand the environmental footprint throughout.
- In calculating the impact, we must encourage an open source approach, including with our methodologies for estimating consumption

Sustainability by design:

- The industry needs to go further than offsetting.
- We have built privacy by design through GDPR. How can we build sustainability by design into blockchain?
- We need systems which clearly incentivize us to do the right thing. We can look at creating the financial incentives for a transition to a green economy.
- We need more discussions on consensus algorithms, whether proof-of-work or proof-of-stake. Would be keen to host a hackathon on what it would take to actually convert proof-of-work currencies to proof-of-stake.
- We can do some more work on comparing the impact of permissioned blockchain to public blockchain, so that we can evaluate options based on the project.
- We can leverage other emerging technologies to support our transition. For example, how can we leverage AI to harness the data on our carbon footprint and turn it into something actionable.

Using renewable energy smartly:

- Biodiversity is also important. When we are developing decarbonization strategies, we need to think about the wider biodiversity impact. E.g. hydro is a renewable source, but has biodiversity challenges.

- Consider whether or not we are using renewable resources appropriately in terms of how much and when.

Digital Assets play an important role in Net Zero

- DLT and blockchain have huge potential as a tool for sustainable financing, and enabling a transition to a sustainable economy.
- Blockchain can enable so much when it comes to carbon accounting, allowing companies to collect and track reliable evidence/data accurately. Architects of the future will choose blockchain every time due to the brutal transparency of it.
- DLT plays a big role in creating secondary markets for green bonds.
- Considering the role that digital assets play in improvements to market infrastructure, digital assets increase the attractiveness of the investment, and enables integration with DeFi.
- Digital assets can play an important role in embedding truth and evidence into ESG reporting, including in nature-based projects such as rewilding.

Further examples of digital assets in ESG investing can be found in the GDF ESG Report [Digital Assets: Laying ESG Foundations](#).

Next steps

GDF will convene a working group to focus on the ESG reporting standards for the crypto and digital asset ecosystem. If you are interested in taking part, please email anastasia@gdf.io

Building on the work already achieved by key industry initiatives such as the Crypto Climate Accord, the first steps for the working group would be to:

- Develop an industry-wide framework for ESG reporting throughout the crypto ecosystem
- Develop the manual for collecting and sharing ESG data
- Incorporate ESG priorities into the GDF Code of Conduct