



PAN GALACTIC

PAN GALACTIC DEVELOPMENTS

Green and Blue Paper 2022

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Pan Galactic Green and Blue Paper

The Aim

As a company developing blockchain, applications and other technological solutions for industries such as Space we are starkly aware of our responsibilities to avoid negatively impacting Earth's ever more fragile environment and embrace the UN Sustainable Development Goals as our own.

In the Blockchain industry, a key barrier to mass adoption is the carbon impact of blockchain's current consensus methods and the computing power employed.

To be responsible developers in our industry we must :

- Make day-to-day business decisions where the carbon cost to the environment is considered as a bottom line of equal importance to our financial bottom line.
- Work to establish environmentally responsible working methods.
- Tackle the climate issues attached to Blockchain in order to drive mass adoption as a whole.
- Take proactive steps to positively effect the environment which are both measurable and tangible.
- Make it easy for stakeholders such as Blockchain colleagues from other teams, our community, investors, partners and advisors to also participate with us.

Purpose

The purpose of this document is to state our intention publicly to anyone connected to or considering being connected to Pan Galactic.

This document is our pledge and in subsequent years, this document will become our annual environmental report which will be published annual on the 4th of May.

Information contained in this document shall be kept at a level which is accesible for all readers to understand, technical information related to our project will be reserved for technical papers, which are also available for public access.



**Carbon
negative
blockchain
is coming!**

2. Partnership working and compliance

As the first part of our pledge, we are partnering with key green initiatives in the blockchain industry and will be fully compliant with all of the pledges we make paying mindful attention to our business activities.

Making pledges to work within eco-friendly frameworks is only the beginning point for our business, we seek to help lead the way for others by surpassing our commitments and actively working to find new solutions to the industry's energy consumption issues.

To date we have committed to the following programmes and accords in order to demonstrate unity with others working to make a difference, and to play our part in charting the road ahead :

- Signatory and supporter of the Crypto Climate Accord
- Compliance with the United Nations Sustainable Development Goals
- Compliance with the United Nations Framework on Long-term sustainability of outer space activities published July 2021
- Currently working through compliance with ISO standards and their associated environmental best practices.
- We have appointed a Chief Sustainability Officer to coordinate our Sustainable Management Plan.

We have more memberships and agreements to best practise incoming and will review and then update this document as and when they are in effect.

An old business mantra states 'you can't manage what you can't measure' we seek to ensure we set the tone for our work from the start of our journey. This means ensuring that our words expand beyond statements and provide evidence and data which can be checked by our community.

Our annual audit shall include:

- Total energy consumption for Pan Galactic as an organisation, our key products and also benchmarking against competitor data sets.
- Annual comparison of performance against our sustainability commitment.
- Key learnings and methodologies to provide data for others to make use of
- Our carbon impact scores across a range of audit providers
- Proof of our positive measures and an assessment of their effectiveness.
- An overview of how we will change, develop new measures and proceed in the future, through our active Sustainable Management Plan which we share with our stakeholders.

Naturally, as time progresses we may need to find ways to do things better. New ways of doing things continually emerge and so within our strategy, we are giving ourselves license to do more and do better where the opportunity presents itself.

We communicate these new things to our community and partners as they happen and we welcome suggestions, partnerships and ideas from our community info@pangalacticdev.com

We also welcome our colleagues in Blockchain to use our ideas, if we can help anyone with information on how we do things just get in touch.

3. Positive measures

Pan Galactic seeks to be a full Carbon Negative blockchain company and as such this will require proactive work on our part.

Our positive actions will include but are not limited to the following:

- Acquisition and preservation of woodland, wetland & other biodiverse areas, such as native forests, planting new trees and further developing biodiversity for the future.
- Re-wilding projects focused on habitats and soil health.
- Investment in sea and river conservation schemes
- Investment in green-tech start-ups to help in the development of future solutions.
- Further research into the products and services we launch to ensure they are created and operate in compliance with our climate pledge.



As a company coming from a coastal community on the Humber Estuary in the UK we love and respect the sea, we understand its vital role in helping reduce global warming, and we seek to lean into this by working to fund Seagrass planting, as Seagrass traps twice as much carbon per square meter than the Amazon rainforests, and this capture of carbon also feeds and nurtures the ecosystem in the ocean too.

In the UK the coastline is owned by the crown and so we are unable to purchase this but we are committing to donating to projects which are permitted to plant sea grass.

We seek to introduce further carbon reduction methods to any waterways and streams which may flow through our woodlands and wetlands and protect them from pollution.

We will be updating this document in due course and shall update the locations of new woodland acquired, planting schemes and partnerships as they continue, and we shall be working with The Ocean Foundation to invest in Seagrass planting and calculating our offsetting commitment.

3. Positive measures (continued)

Investment in Green Tech and R&D

We know that part of being a part of the future solution requires us to encourage, promote and support the future innovators of sustainability. In order to effect this we shall be using an element of our company profit to support the following:

- Renewables
- Technical solutions with lower energy consumption
- Innovations in waste management
- Educational projects which further promote sustainability.
- Opening access to education for under-provided communities worldwide.

Within the Humber region of the UK, we are surrounded by peers and innovators who are amongst some of the UK's most sustainable businesses. It is with this in mind that we seek to further add to the commitment of the region to renewable energy sources and environmental education.

Initially, our investment will take the form of contributions on crowdfunding sites, or calls for pitches. Our aim is to help take ideas to proof of concept and then to market.



As we continue to build in the coming months we will be finishing our e-commerce marketplace, for which we will encourage makers and developers of green technologies to make use of this functionality free of fees.

The future will see a blockchain-based crowdfunding application geared specifically at green tech, R&D and new innovations.

We seek to make this a home for such makers to develop ideas and scale. From this functionality, we will create an event around sustainability and award an annual prize for innovation.

So far we are working with local STEM ambassadors on the education elements and we very recently were part of the activation of the #OhYesNetZero Campaign working with key local business organisations to cement their pledges to achieving Net Zero Carbon emissions.

Please do keep an eye open for future initiatives and if you wish to get involved please get in touch, communication of our positive actions on sustainability will be communicated on our website Log posts and through updates to this document.

Community opportunity

Community inclusion

Community is everything, we want our community to feel valued, engaged and welcome to take part in the social projects we have happening. Ways they can get involved include the following:

- Participation in tree planting, woodland litter picking & beach cleaning.
- Sponsorship of tree planting
- Fractional ownership of woodland
- Sponsorship of innovation grants
- Chances to win bushcraft retreats for holding our NFTs and tokens

Each year we will be planting trees and conducting forestry work, we seek to create an opportunity for engaged community members to come and camp on the land with us and take part in the planting of seeds & young native tree stock. We will action this by a call to action to our users/customers, sponsors and partners.

Where community members are unable to commit to attending a physical meet up we will provide a scheme whereby we plant trees in their name. This will include a grid reference location of where their tree is, a photo of the planted tree and a name tag on the tree itself.



Another opportunity for the community to get involved is taking part in our forthcoming fractional ownership project. In this project we invite community members, other projects and partners to purchase NFTs which relate to specific grid reference points as a way of creating a community approach to ownership of woodland and forests. Here community members will be able to be part of the ownership and preservation structure of the woodland spaces in proportion to their contribution.

Community members will have the chance to join us in nurturing new start-ups through our forthcoming crowdfunding platform either by donation to the innovation grants or by directly pledging sponsorship to specific projects.

In education, we have already begun educational partnerships with colleagues around the world. Further possibilities for communities to get involved exist in programmes we have in Uganda, Colombia and the Philippines. As well as creating a positive impact in those locales we are also trying to find the next generation of visionaries by providing the opportunity.

More details will follow in due course.

Day to day

Our standard operating procedures

The Pan Galactic Developments team are always working to mitigate our negative impacts on the planet. We have instituted a number of measures within our business Sustainable Development Plan, such measures include but are not limited to the following:

- Developing our applications and blockchain project in line with best practise for sustainability
- Research and development into new ways to reduce the environmental impact of blockchain
- Purchase of energy from green suppliers and energy portfolios
- Energy conservation measures throughout the business
- Recycling of waste and taking conscious decisions on the items purchased to reduce non-recyclable items.
- Basing ourselves within a BREAM Rated Facility
- Encouraging cycle-to-work schemes, car shares and where possible use of electric cars
- Offering hybrid working conditions to cut car and energy emissions
- Measurement and additional offsetting of carbon emissions through a range of schemes.



Conclusion

It is a big commitment to consider when starting a business which exists in two industries where questions over environmental impact are raised on a regular basis.

We accept the challenges associated with Blockchain and the fast-growing Space industry, and it will be difficult but this is all the more reason to work to solve such issues.

We don't shy away from making our pledge known as we have spent a lot of time researching what is possible and what we can do in order to operate responsibly.

Ultimately if we can contribute towards solutions this will not only drive more adoption in the industries where we work but also contribute to the way ahead for our colleagues, partners and new start-ups.

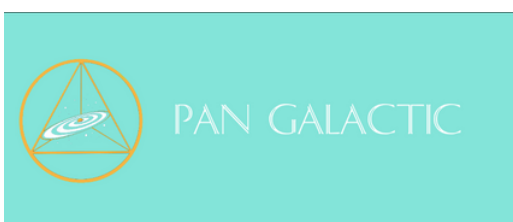
In order to do this we have identified schemes and services which are accessible to us and have made a plan to report our key measurable data to the community. Our co-founder Alan Raw has also become our Chief Sustainability Officer and is working specifically on delivering on our sustainable development plans and meeting the United Nations SDG's (Sustainable Development Goals)

We approach this aspect of our business with excitement and enthusiasm as we know this is the way to go. We also know the need to deliver tangible results from pledges such as this one and we look forward to presenting our report on May 4th 2023.

In the meantime please do feel free to contact us on our contact page on our website www.pangalactic.io if you have any questions. Also, follow us on our social pages where we will be making the majority of our announcements as this programme progresses.

Kind regards

Flow Collingwood
CEO – Pan Galactic Developments Ltd



Our 2022 Goals

1

Net Zero and further

We have joined schemes to commit to working towards a Net Zero environmental impact, and we will seek to go further, as Pan Galactic will seek to run one of the first Carbon Negative Blockchain projects.

2

Create a community movement

We want to engage with like-minded teams and individuals and we invite our community to play a part in our activities, either in person or remotely. Options include planting trees, sponsoring Seagrass planting, funding educational projects, funding new green technologies or even coming to have some exclusive experiences with us, so feel free to get involved

3

Help others

As developers of Blockchain, we are part of an emerging community, our learnings are for everyone to use as they please.

We believe in an open-source community and this extends to all aspects of our business. If we can help other teams and businesses achieve better sustainability we are always more than happy to help.

Get in touch on our contact page on www.pangalactic.io

4

The tangibles

Words are great but action and delivery is better.

By the end of Q2 2023...

- Acquire our first woodland for conservation
- Conduct a bushcraft course for community member reward/prize
- Invest in a green-tech start-up or educational project
- Invest in Seagrass conservation
- Complete our carbon offset
- Complete and publish an audit of all activity discussed in this plan
- Launch community benefit schemes as above



CRYPTO CLIMATE ACCORD

Signatory Letter

This letter represents a public commitment to support the overall and interim objectives of the Crypto Climate Accord, as follows:

The Crypto Climate Accord's overall objective is to decarbonize the global crypto industry by prioritizing climate stewardship and supporting the entire crypto industry's transition to net zero greenhouse gas emissions by 2040. The Accord has two specific interim objectives:

Objective 1: Achieve net-zero emissions from electricity consumption for CCA Signatories by 2030.

Objective 2: Develop standards, tools, and technologies with CCA Supporters to accelerate the adoption of and verify progress toward 100% renewably-powered blockchains by the 2025 UNFCCC COP30 conference.

Moreover, by signing this letter, PAN GALACTIC DEVELOPMENTS LTD ["Signatory" company], registered at C4D1, 31-38 Wellington Street, Hull, HU9 1LU, UNITED KINGDOM [street, number, postal code, town, country], affirms its public commitment to achieve net-zero emissions from electricity consumption associated with all of its crypto-related operations and to report progress toward this net-zero emissions target using best industry practices.

By signing and submitting this letter, Signatory permits full public recognition (including the use of Signatory's logo and references in public communications) and responsibilities of this commitment.

Please submit the fully executed copy via email to the Crypto Climate Accord to formalize this commitment and put this commitment on record. If Signatory decides to withdraw its commitment, then Signatory must submit its withdrawal in writing to Energy Web to formalize its withdrawal as a Signatory.

FLOW CALINCIU
CEO/Founder

Signature from authorized individual

2nd signature (if needed)

Date

24/3/2022

Date (if 2nd signature needed)

We thank you for your
ongoing support of
our project

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#WeArePanGalactic

Additional resources

<https://www.eea.europa.eu/publications/blockchain-and-the-environment>

<https://www.investopedia.com/tech/whats-environmental-impact-cryptocurrency/>

<https://www.leafscore.com/blog/the-9-most-sustainable-cryptocurrencies-for-2021/>

<https://cryptoclimate.org/accord/>

https://www.esa.int/Safety_Security/Clean_Space/Road_maps_for_Clean_Space

<https://www.gov.uk/government/news/un-and-uk-sign-agreement-to-promote-space-sustainability>

https://spacesustainability.unoosa.org/sites/spacesustainability.unoosa.org/files/21-02562_lts_ebook_english_june2021.pdf

<https://oceanfdn.org/projects/seagrass-grow/>