

FRED ENERGY

PROJECT
PITCH 2021



ABOUT

Developing green energy projects using blockchain and crypto assets



INTRODUCTION

The FRED Project was founded in 2018 and started out as a mineable coin on its own blockchain (FRED Energy). The idea, to use crypto assets and blockchain in accelerating the development of renewable and carbon-neutral energy devices. This we termed Funding Research into Energy Devices (FRED)

- Founded in 2018 as a circular funding system for hobbyist inventors
- Launched a green energy products marketplace accepting cryptocurrency payments in 2020
- Prototyped our own solar power bank using *lifetime battery cells
- Early adopter of multi-blockchain utility tokens
- Over 4000 social media followers
- Over 1200 token holders

- THE BUSINESS MODEL

FRED ENERGY



Our business model utilises blockchain and crypto assets to enable the development of green energy focused projects. Blockchain and cryptocurrencies are gaining mainstream popularity and may seem at odds against energy efficiency, but they are disruptive technologies. For our project they offer an alternative entry point into raising awareness and funding towards projects that will create positive long-term change.

Blockchain provides our project with the the ability to tokenise assets and create immutable records of a transaction, an asset class and its status.

Not all blockchains are energy-intensive, we use the green standard of blockchains Stellar.

FRED Energy is focused on innovation that aids in the acceleration of alternate energy generation and usage to benefit and empower the people. The FRED treasury is a funding mechanism that seeks interesting and viable innovations for funding in exchange for Joint Venture (JV) partnerships. This enables the innovation to move forward and increases the chances of bringing the product to market.

Eco-bank and Sol-bank are products that will form part of the initial brand awareness campaign and one of our use cases for blockchain. Further projects are planned to begin once we meet our set goals.

Value for investors will be realised as the projects we have planned are implemented, creating greater awareness and therefore a greater market demand.

As we progress, diversification will be the key to our success and where we find an eco-focused market opportunity, we will aim to be part of that market, growing the brand into a consumer focused player in the new green economy.

- WE START WITH

THE LITHIUM-ION BATTERY PROBLEM

MOST MODERN POWER BANKS USE LOW-COST LOW-QUALITY BATTERY CELLS

THE TYPICAL LIFECYCLE IS BETWEEN 400-1000 CHARGE CYCLES



THE PRODUCT LIFECYCLE IS SHORT AND WASTEFUL (1-2 YEARS)

LESS THAN 5% OF LITHIUM-ION CELLS ARE RECYCLED, THE REST GO TO LANDFILL

- ABOUT

LONG LIFE-CYCLE BATTERY CELLS

- Lithium Titanate Oxide (LTO) 20,000 cycles
- Lithium iron phosphate (LiFePO₄) 2000+ cycles



We believe that today's consumers would be willing to pay a little extra knowing that our products battery pack can be repurposed several times during its lifetime

Pros

Extreme lifecycle properties (5-30 years)
High charge/discharge rates means faster charging
Working temperature -40 to +80C
Safer than Lithium-ion batteries
Good for the Environment, Reduces overall cost

Cons

Less energy dense, more cells are needed
Lower nominal voltage of 2.4V LTO, 3.2V LifePO₄ (Lithium-ion 3.7V)
More expensive (2-5 times the cost of similar capacity cells)

- INTRODUCING
OUR SOLUTION

Product Development

We are developing long-lifecycle consumer products using LTO and LiFePO4 battery cells which are capable of 2,000 to 20,000 plus charge cycles



Blockchain Enabled

The product and battery cell serial numbers will be written to the Stellar blockchain to provide Product Lifecycle Management (PLM) enabling reuse in 2nd life products

Re-use Kits

We will develop reuse kits such as outdoor solar LED lighting systems where the consumer can remove the battery pack and install it into the new kit

Consumer Rewards

To create a more circular battery economy, consumers need to benefit from their actions. Consumers of our products will be rewarded with store vouchers and tokens

● PRODUCT

DEVELOPMENT - ECO-BANK

The Eco-Bank is the result of our first collaborative venture with an inventor. Eco-friendly and money saving, It is also designed to meet modern user needs

The global power bank market size is anticipated to reach \$27.8 billion by 2027



LTO Power Bank

- Capacity 20,000 mAh - 48,000 mAh
- Capable of being fully charged in 30 minutes
- Power outputs to meet modern consumer needs
- 20 year lifecycle battery enabling reuse



● PRODUCT

DEVELOPMENT - SOL-BANK

The Sol-Bank is aimed towards the African market where access to energy is limited or non-existent and supplied as a bundle consisting of a Sol-bank and solar panel

“Batteries are crucial to supporting Africa’s energy access goals, through the increase in production of batteries for battery-solar systems, and as part of microgrids and off-grid solutions” [GBA](#)

LiFePO4 cells

- Capacity 9,000 mAh - 12,000 mAh
- Small lamp and phone charger
- Up to 5 year lifecycle battery enabling reuse
- Consumer earns energy generation rewards



- BATTERY PACK

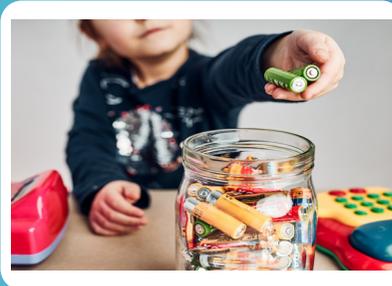
TRACK, REUSE, REWARD, RECYCLE

Our products will use high-end Lithium Titanate Oxide (LTO) and LiFePO4 battery cells with longer-life properties of between 2,000 - 20,000 plus charge cycles

“batteries that can last in many lifecycles are very beneficial with the potential to basically cut the embedded emissions in half if it's possible to run as many cycles in the second life application as in the original application” [CES 2019](#)



- Products tracked on the Stellar blockchain
- Battery pack lifecycles of 5-20 plus years
- Planned 2nd & 3rd life usage
- Consumer rewards
- Better for the planet



- ABOUT

REWARDS & INCENTIVES

To achieve a more inclusive and circular economy, leading to a better social and ecological impact, consumers are likely to be more incentivised if they are rewarded.

Our products are designed with incentives in mind

Rewards plan

- Consumers of the Eco-bank receive vouchers for our marketplace at purchase and later when the battery pack is reused in one of our kits for providing the product serial
- Consumers of the Sol-bank receive a daily reward of SOLS Tokens. This is calculated from the Wh's produced from the bundled solar panel used to recharge the battery pack



- **PRODUCT LIFECYCLE MANAGEMENT**

STELLAR BLOCKCHAIN

Our project will write the battery pack serial number and its state (manufactured, retailed, returned, reused and recycled) to the Stellar Blockchain

The Global Battery Alliance is soon to launch the "[Battery Passport](#)" aimed more towards the EV industry and will track the full lifecycle of battery cells, from mine to end-of-life.

Writing our battery pack serial to the blockchain provides an immutable record of the battery packs history.

A consumer can view the product information via scanning the QR code which is on the device casing and on the battery pack. The user will be directed to our Fact website which will query the database to retrieve the device information and include the Stellar blockchain transaction information.

FACT token will be used for this purpose and is a non-tradeable token.



● PROJECTS

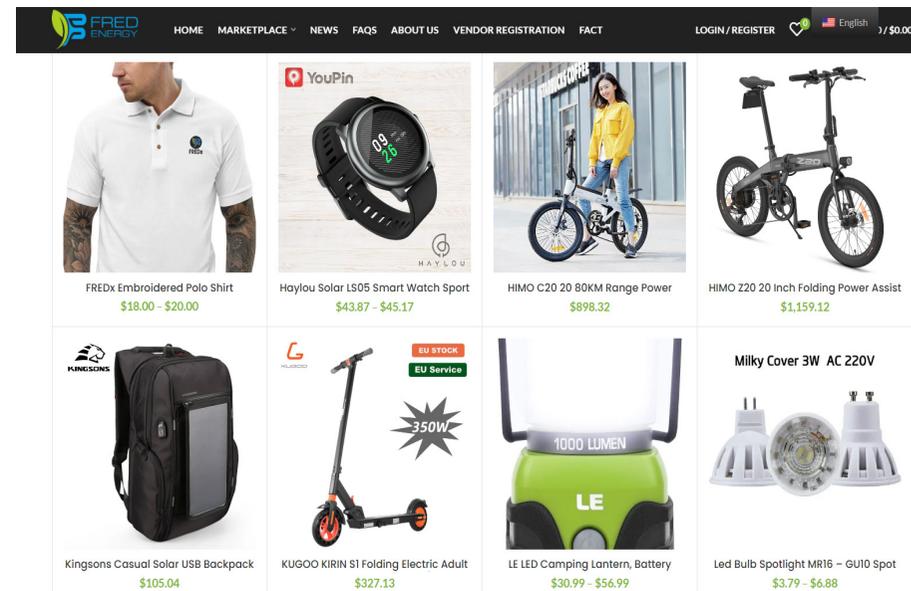
MARKETPLACE

LIVE Q1 2020



The marketplace currently resells green energy related products and will soon feature our own branded products

- Unique green energy product focused marketplace
- Accepts cryptocurrency payments leading to greater mass adoption
- Provides the unbanked access to products via their cryptocurrency wallets
- Aids in the acceleration of consumer energy efficiency and energy generation
- Future own-brand products
- Real consumer product ratings
- Consumers can earn loyalty rewards in coupons or FRED tokens



An all inclusive platform, it also enables the unbanked to access products normally out of reach. The marketplace is our Minimum Viable Product (MVP) and is available at <https://shop.fredenergy.org>



- **PROJECTS**

ACCELERATE & ENERGISE

Project Accelerate builds on current available technology with the aim to promote greater use of electric vehicles (EV's).

Our objective is to purchase a number of novel EV's to promote green energy transportation and increase brand exposure. Each vehicle sponsored will bear the FRED Energy logo to be maintained on the vehicle for an agreed period of time and will further promote the project and raise awareness.

Project Energise will focus on Electric Vehicle (EV) charging stations in niche areas. We aim to increase the number of charging stations where there is a demand now and in the future.

We believe that in the near-future, electricity providers will no longer offer off-peak rates due to overnight charging demands. This is where our project aims to raise awareness and encourage consumers to consider generating and storing their own electricity to offset rising energy prices that are already impacting the quality of life for many.





● ABOUT

COMPETITION & MARKETS

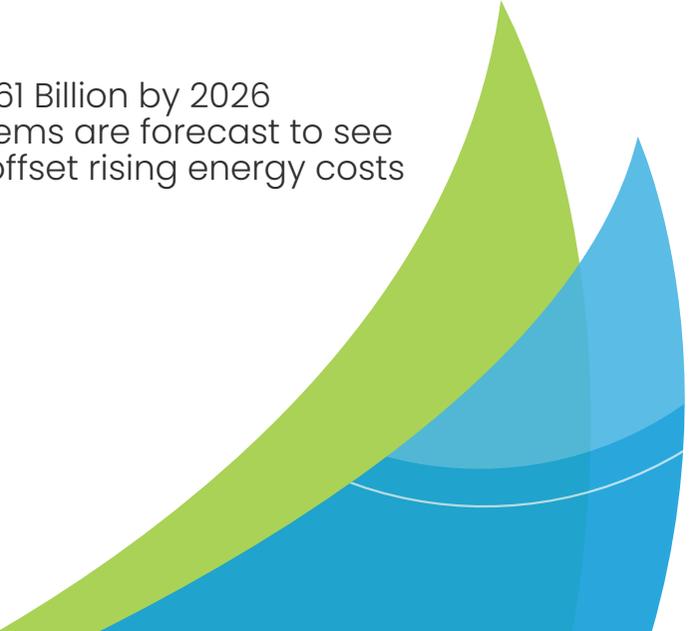
Very few online marketplaces aimed solely at green energy products that accept cryptocurrency as a payment method.

Strong competition for affordable outdoor solar powered energy devices of good quality, we will differentiate ourselves with longer-lifecycle blockchain tracked products.

A worlds first could be achieved in tracking our products lifecycle using the Stellar blockchain
Very few projects identified offering funding for hobby inventors/innovators.

Great potential and need for smaller independents to enter the green energy space to fill certain niche segments.

Only a small number of blockchain based green energy projects which are mainly targeting P2P distribution of electricity.

- The global powerbank market is expected to reach \$27.8 Billion by 2027
 - The EV home charger market is forecast to be worth \$33 billion by 2027
 - Green Technology and Sustainability Markets are expected to Reach \$44.61 Billion by 2026
 - Sales of consumer grade renewable energy generation and storage systems are forecast to see similar growth as they become more affordable enabling consumers to offset rising energy costs
- 

● ABOUT

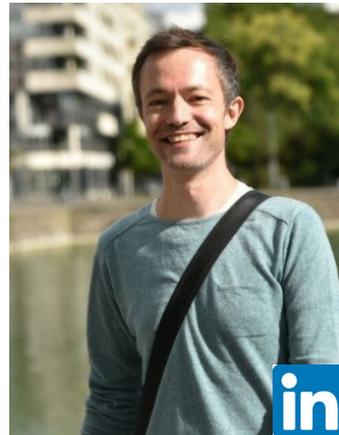
THE CORE TEAM

Our Team is comprised of several professionals with a wide range of experience and expertise in blockchain, systems development, marketing, finance, mechanical & electrical engineering and project management.



Michael Josefsen

Founder & CEO
Business Solutions
Blockchain &
Computer Science



Philippe Delvigne

Graphic Design Artist
Blockchain & Green
Energy Contributor



Daryl Naidoo

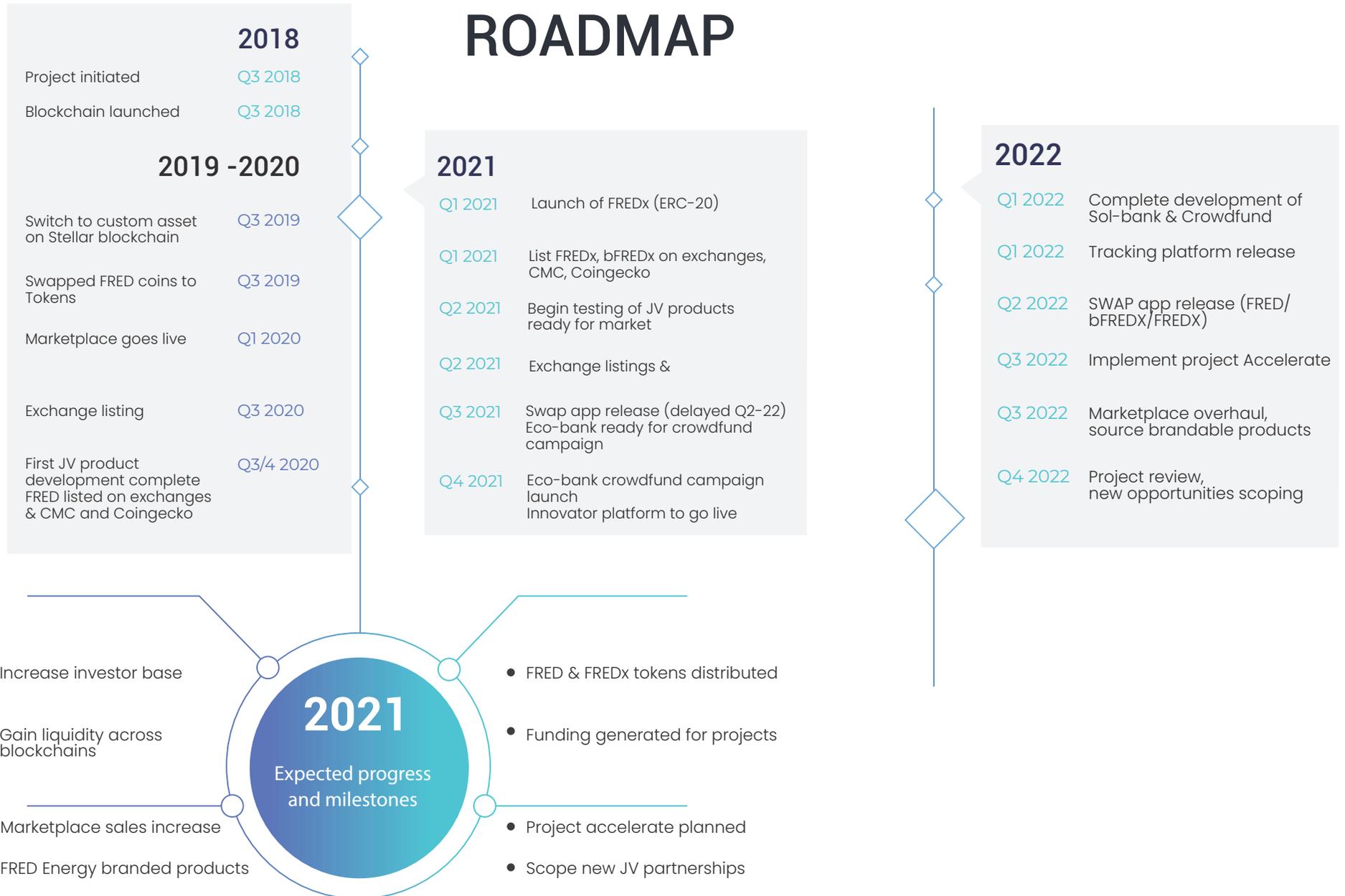
Blockchain Solutions
Architect
Advisor & Member of
blockchain Advisory
council



Denis Sabourin

Inventor & Engineer
Lives completely off
the energy grid

THE ROADMAP



BUSINESS SUMMARY RECAP

The world's energy demands are rapidly increasing and the move towards greener alternative energy generation and usage is accelerating. Major corporations including the big oil giants are investing heavily into green energy initiatives in preparation for the growing change of energy requirements and demands.

Whilst the large corporations are monopolising many future prospects, there is still great potential and need for smaller independents to enter the green energy space in order to fill certain niche segments, this is where our project aims to utilise blockchain and crypto assets to fill the gap.

Projects overview

- The marketplace is our minimum viable product (MVP) and went live as scheduled in Q1 2020 with the first product purchase taking place with cryptocurrency (XLM)
- We are currently developing long-lifecycle products aimed at the outdoors, camping market and those living off-grid. Our JV developed and manufactured products will be unique in that their lifecycle will be tracked using the Stellar blockchain to enable reuse, recycling, rewards and lessen their impact on the environment
- Funding Research into Energy Devices (FRED) already has its first partner and innovator (DSA). Our partner develops energy generation devices and maximises energy storage using new efficient methods. The partner has several prototypes of energy generation and storage devices and we are looking towards a patent application for one in particular
- Project Accelerate is effectively a marketing strategy and has the potential to bring enormous added value to the project via brand awareness, product sales and market capitalisation of our products and tokens
- Project Energise focuses on the rapidly growing EV charging market (funding dependent). There are many niche segments that have been identified where there exists great potential for early investment into Electric Vehicle Charging Stations (EVCS) in preparation for the gradual change of consumer requirements.

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This presentation document provides an overview of The FRED Project's aims, future products and services.

- FIND OUT MORE

PROJECT LINKS

Website Blog: <http://fredenergy.org>

Marketplace: <https://shop.fredenergy.org>

Token information Website: <https://token.fredenergy.org>

Discord: <https://discord.gg/uhA9w>

Telegram: <https://t.me/FREDEnergycommunity>

Facebook: <https://www.facebook.com/TheFredProjectOfficial/>

Twitter: https://twitter.com/energy_fred

Medium: <https://fredenergy-org.medium.com/>

Pitch deck: <https://www.swipe.to/2191nm>

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