

# Lecture 8

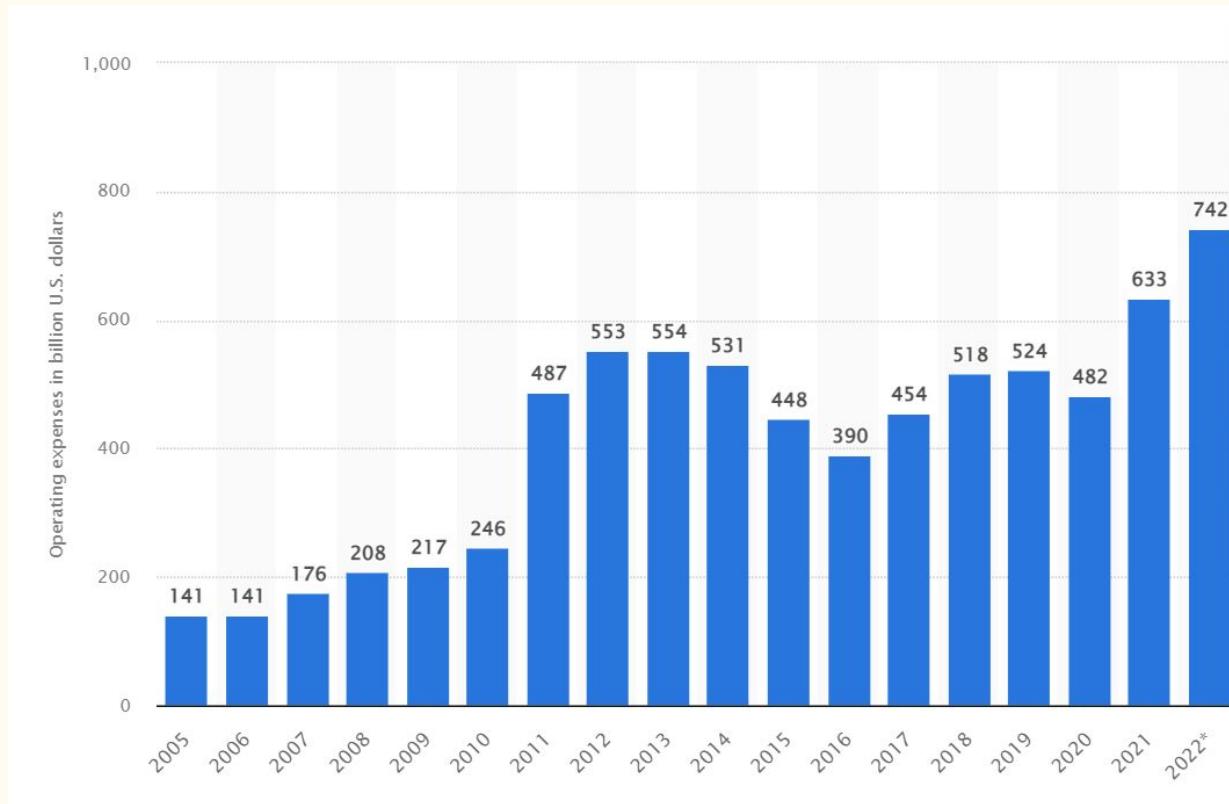
---

Guest Lecture - ReFi and NFT applications

# Regenerative Finance

Funding the Commons

# Mining - An example of unsustainable profits



# Regenerative Finance



"ReFi is the process of using markets to fix the issues markets have created."  
- John Fullerton

# ReFi - Tragedy of the Commons

	<b>Excludable</b>	<b>Non-Excludable</b>
<b>Rivalrous</b>	<b>Private Goods</b> Food, clothes, cars, & other consumer goods.	<b>Common Goods</b> Fish, Timber, Coal
<b>Non Rivalrous</b>	<b>Club Goods</b> Cinemas, private parks, satellite tV	<b>Public Goods</b> Clean air, Infrastructure, Privacy

Goods can be categorized by rivalry and exclusion.

Common and public goods suffer from overconsumption and underinvestment - tragedy!

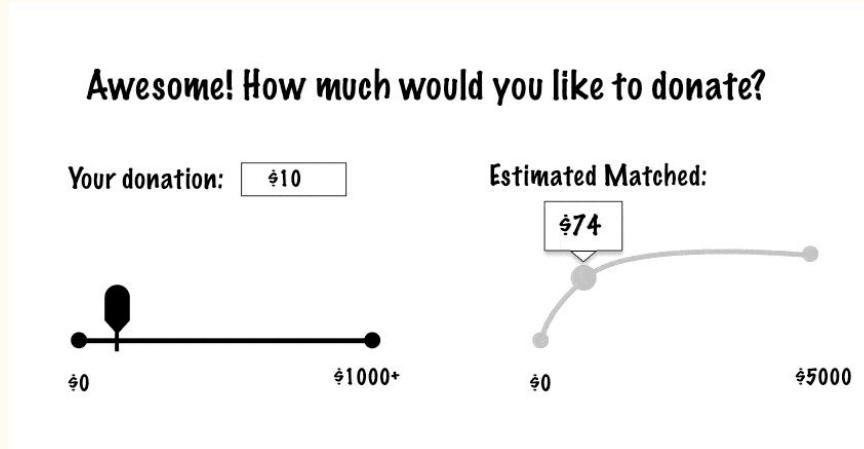
# Rise of Regens - Funding the Commons



- Conservation of the Alps
  - Runs through France, Switzerland, Italy, Liechtenstein, Austria, Germany and Slovenia.
  - Tokenize the Alp - Conserve the Alps and earn some profits from camping/skiing?
- Protection of endangered animals / culture
  - Wildchain - adopt an animal in a gamified way. Fund zoos and conservation efforts
  - Monaverse - storytelling through NFTs
- Universal Basic Income
  - Every person deserve to live at a certain standard
  - Impact Market - Microfinancing for impoverished communities

# Decentralized Crowdfunding - Quadratic Funding

Individual donors  
to a specific  
initiative



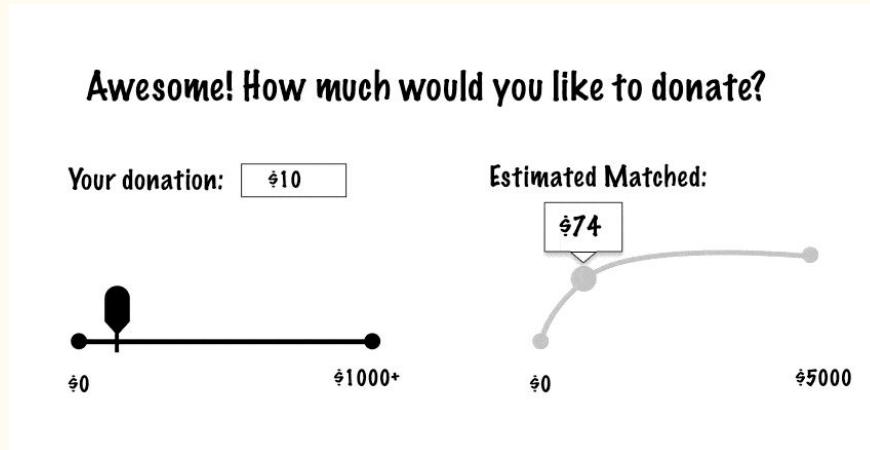
Donor pool usually  
funded by large  
corporations or  
general donors

Favour small donors over whales.  
Value participation numbers over concentrated wealth

Sybil Attacks?

# Decentralized Crowdfunding - Quadratic Funding

Individual donors  
to a specific  
intiaitve



Donor pool usually funded by large corporations or general donors.

Pools fund projects in a round.

Favour small donors over whales.  
Value participation numbers over concentrated wealth  
Still respect the size of the total amount raised per project

Sybil Attacks?

# Quadratic funding - Example

	Total	# Contributors	/Contrib
A	\$ 200	20	10
B	\$ 10 000	2	5 000
C	\$ 1 000	2	500
D	\$ 1 000	5	200



$$V_i^p \left( \left( \sum_j \sqrt{c_j^p} \right)^2 \right)$$

# Quadratic funding - Example

$$\left( \sum_j \sqrt{c_j^p} \right)^2$$

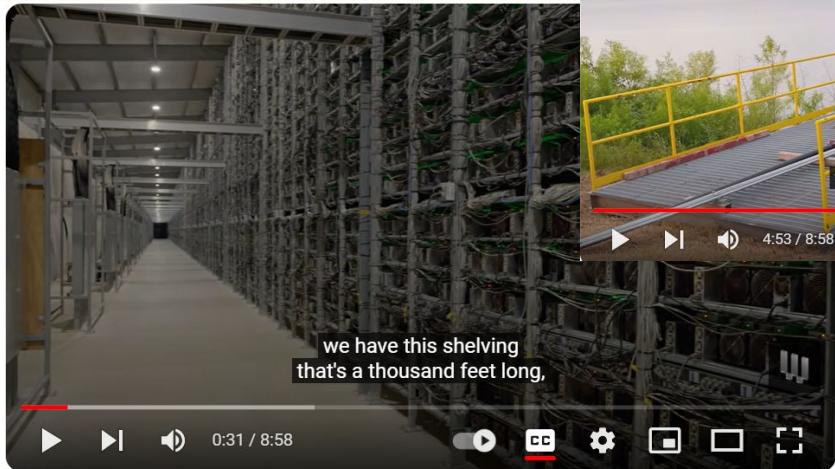
A	$(20 \times \sqrt{10})^2 = 400 \times 10 = 4\ 000$
B	$(2 \times \sqrt{5000})^2 = 4 \times 5000 = 20\ 000$
C	$(2 \times \sqrt{500})^2 = 4 \times 500 = 2\ 000$
D	$(5 \times \sqrt{200})^2 = 25 \times 200 = 5\ 000$

$$V_i^p \left( \left( \sum_j \sqrt{c_j^p} \right)^2 \right)$$

A	$(4\ 000 / 31\ 000) \times 10\ 000 = \$\ 1290,32$
B	$(20\ 000 / 31\ 000) \times 10\ 000 = \$\ 6451,61$
C	$(2\ 000 / 31\ 000) \times 10\ 000 = \$\ 645,16$
D	$(5\ 000 / 31\ 000) \times 10\ 000 = \$\ 1612,90$

# Towards Carbon Neutrality

# Blockchains are energy intensive!



Inside the Largest Bitcoin Mine in The U.S. | WIRED

<https://www.youtube.com/watch?v=x9J0NdV0u9k>

Electricity



Production

26 730 TWh

Consumption

22 315 TWh

Bitcoin share

0.75%

# Consensus mechanisms influence consumption

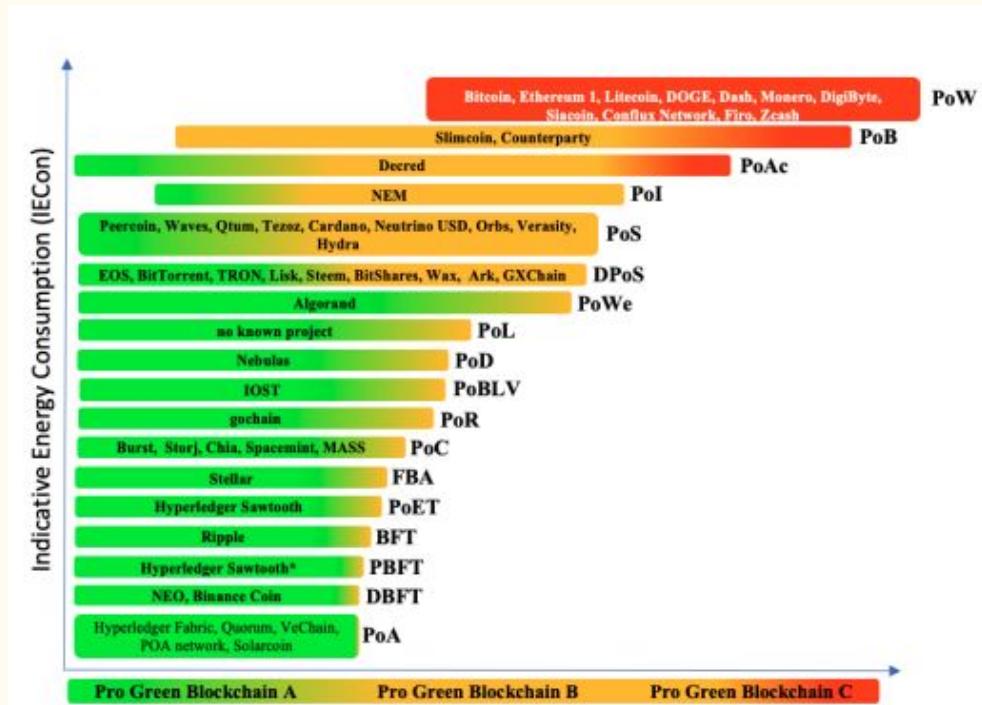
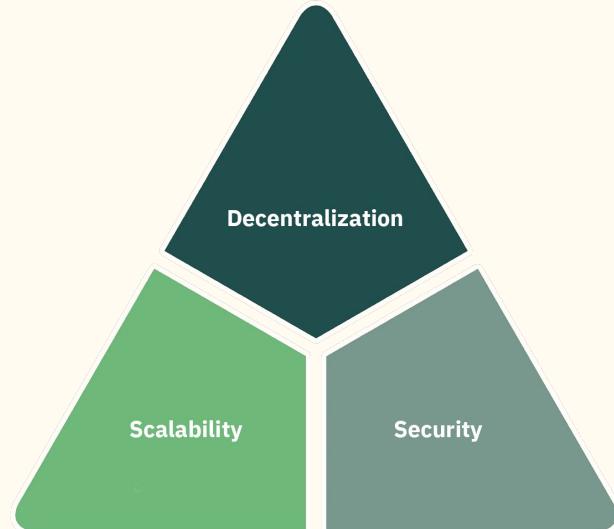


Fig. 2. IECon Chart



The Blockchain Trilemma

# Achieving neutrality - Carbon Credits



**GLOBAL CARBON  
HOLDING**

- Buy carbon credits
- Credits goes towards projects
  - Reforestation
  - Renewables
  - Wildlife
- Offers hedging!
- UN Sustainable Development Goals
- Capturing Greenhouse Gases
- Recycling initiatives
- Animal Sanctuaries and Reserves

Time to think about finals

# Final Project - Groups

Group 1

Matthieu  
Yunjie  
Eduardo  
Nathan

Group 2

Nicolas  
Maximo  
Hortense  
Yuren

Group 3

Anthony  
Calida  
Stellan

Check out the final project repo

[https://github.com/Dauphine-Digital-Economics/Final\\_Project/tree/main](https://github.com/Dauphine-Digital-Economics/Final_Project/tree/main)

# Boonty

## ENGAGE & EARN



Dauphine intervention

# About Me



*Laury Jacot*

# My Engineering background

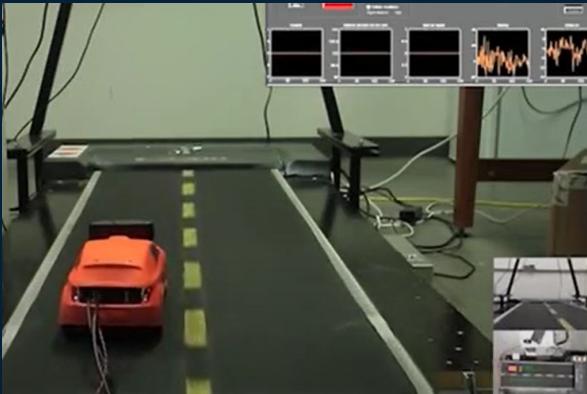
Boonty



*and many more tools & channels...*

# My Engineering background

Boon ty



*and many more tools & channels...*

# First steps in Blockchain

Boonty

The Bitcoin concept

My first projects

MBA Blockchain Club

Research project at Strategy&

Boonty

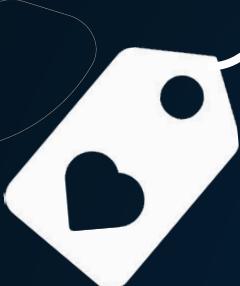


# Boonty

## ENGAGE & EARN



Dauphine intervention



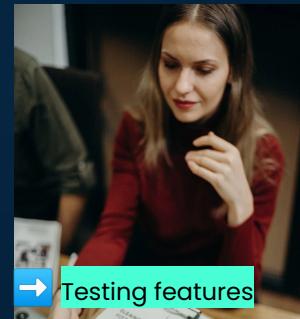
# Brands are **engaging customers in multiple ways...**



Instore surveys



Online surveys



Interviews

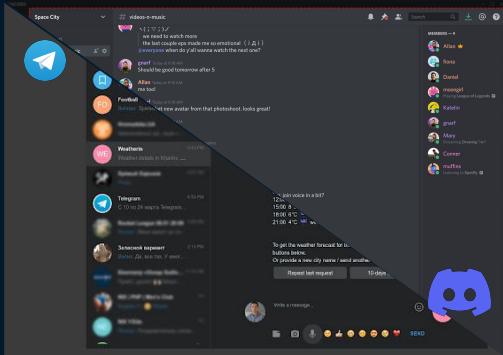


Social Media listening

and many more tools & channels...

# Community feedback is Key!

## Discord / TG



Cobuild

## Social Media



User and Market  
tendencies

## Online Surveys

Survey

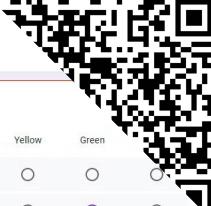
\*Required

What's your favorite color? \*

	Blue	Red	Yellow	Green
1st	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2nd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3rd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This question requires one response per row

Submit



Get to **know your users**  
And **feedback**

**Do YOU answer these?**

...But participation rate is often very **LOW**

**80%** of people never share their opinion (**Silent Majority**)

Why?

✗ Incentives

✗ Follow-up

✗ Gamification

✗ Targeting

# Boonty, where communities have a voice



**First platform** that rewards customers' contribution

Surveys to **Co-build, Contest, Get feedback!**

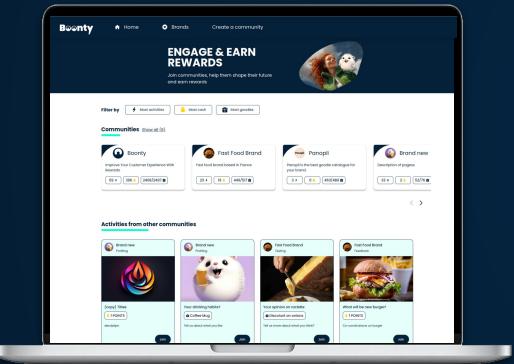
**Automatic rewarding** for each participation

Users gain **levels** and **unlock exclusive rewards**

Multiple languages available

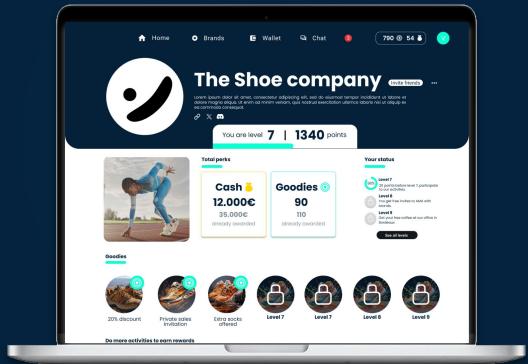
# Boonty, three formats

## Shared webapp



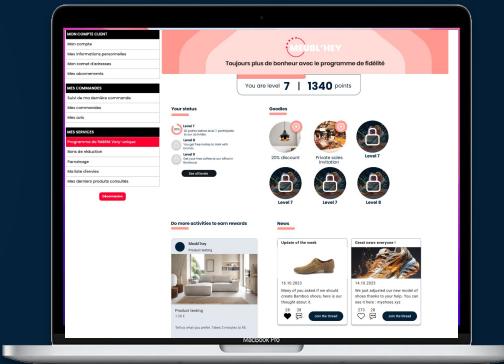
Take part of the **Boonty eco-system** among **multiple brands**.

## Ecosystem webapp



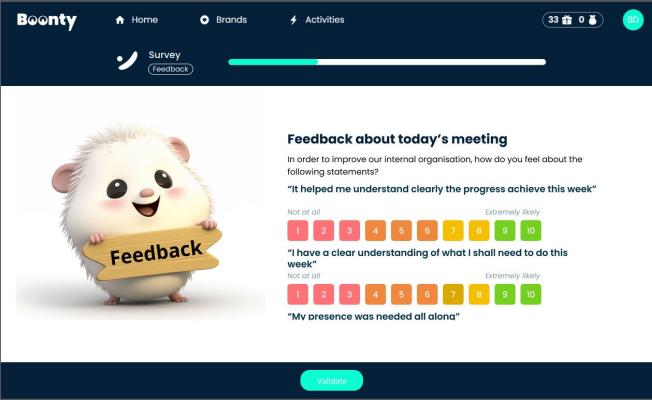
Have your **own instance** and invite only the brands of **your choice** to stimulate around a specific topic.

## Website integration



Get a **full integration** with your website, allowing you to link Boonty to your customer behaviour through **API integration**

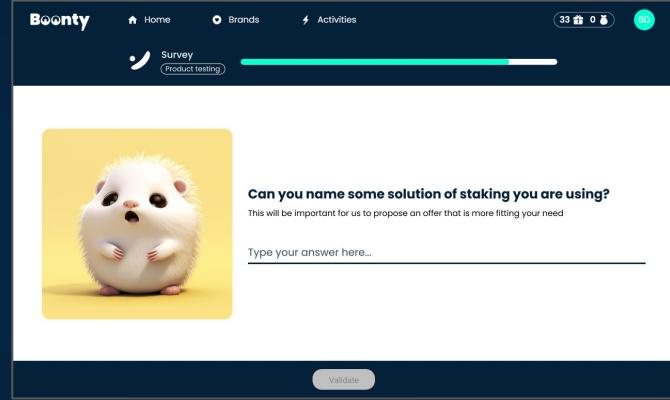
# Why would you use Surveys?



The screenshot shows a Boonty survey interface titled "Feedback about today's meeting". It features a cartoon hamster holding a "Feedback" sign. The survey asks: "In order to improve our internal organisation, how do you feel about the following statements?" with three statements listed: "It helped me understand clearly the progress achieve this week", "I have a clear understanding of what I shall need to do this week", and "My presence was needed all along". Each statement has a 10-point Likert scale from "Not at all" (red) to "Extremely likely" (green). A "Validate" button is at the bottom.

## Feedback

Get instant feedback on your experience, events, products, services

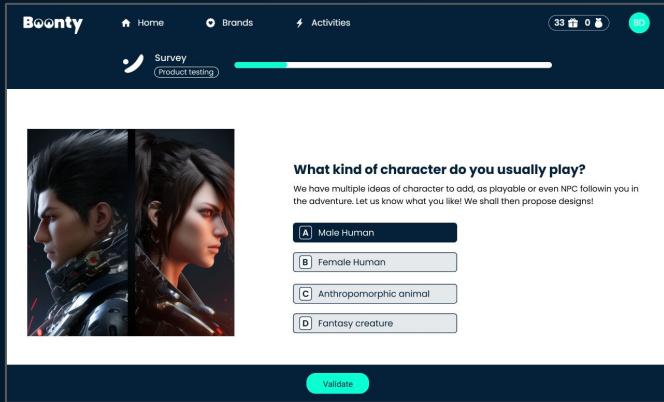


The screenshot shows a Boonty survey interface titled "Can you name some solution of staking you are using?". It features a cartoon hamster. The survey asks: "This will be important for us to propose an offer that is more fitting your need". A text input field is provided with the placeholder "Type your answer here...". A "Validate" button is at the bottom.

## User Research

Understand who your users are. Measure a willingness to pay, a willingness to use a tool, test the attractiveness of a product, get information about competitors

# Why would you use Surveys?



## Cobuild

Use your community to engage them, and make them help you build!



## Goodies



## Tokens



## Vouchers



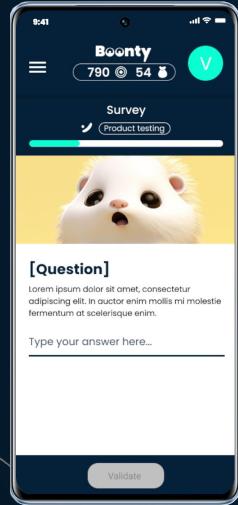
## Collectibles

## Loyalty

Each participation to surveys is automatically rewarded and gamified! The more the users participate, the closer to the brand they get.

# Many ways to interact

Surveys as you know them, **but rewarded, gamified** and with **follow-up!**



Open Answer

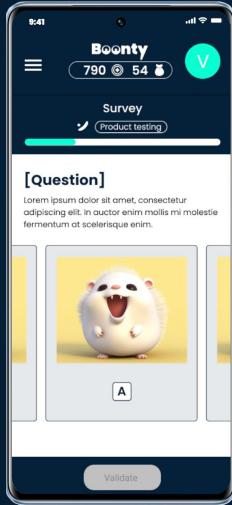
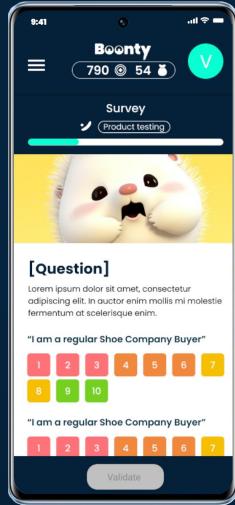


Image selection



Likert Scale



Cursors



MCQ / UCQ

And more...

# Target your users and share it



Direct link

User Answers

Without account

Logs In / Creates Account

With account

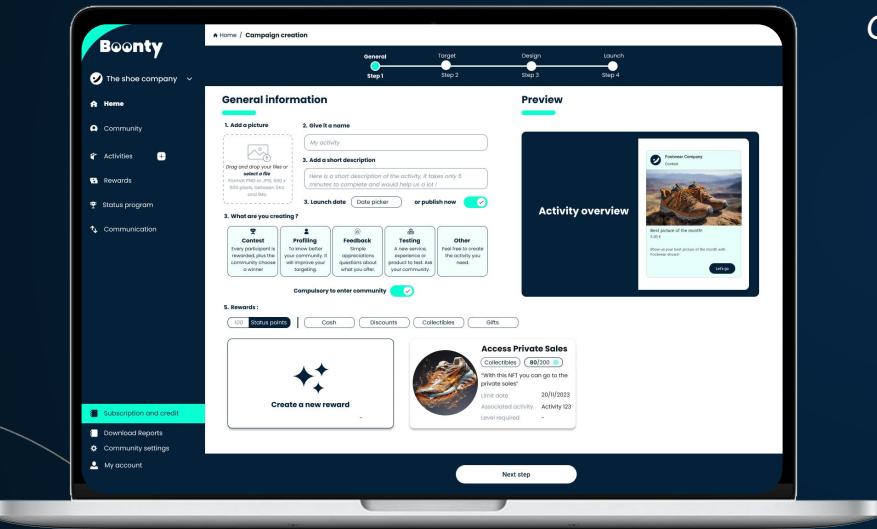
Rewards

Visible on Boonty

Targeting:

- Minimum Level only
- Specific NFT holders
- Personalised profiling

# How to manage it? Admin panel



One single easy to use Administration access:

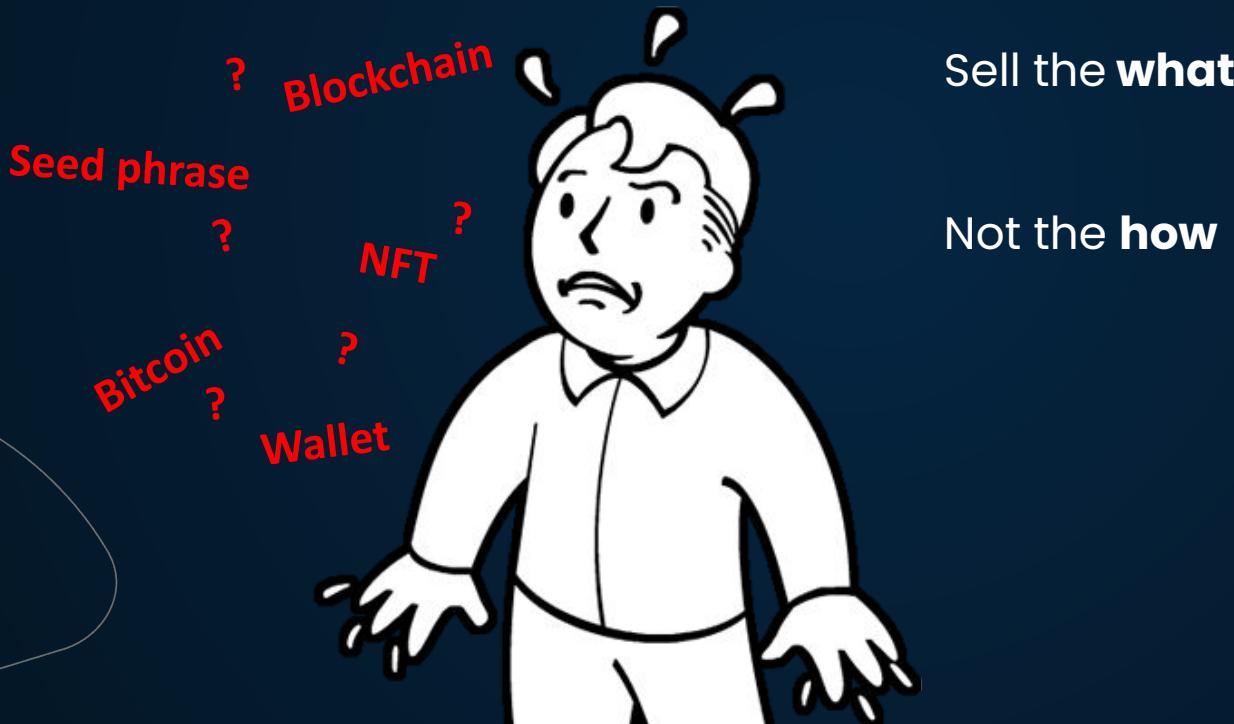
- **Management** of the community
- **Rewards** creation and management
- **Status program**
- **Customization** of the brand page
- Access to **activities' results**

# Where is Web 3?



And my pixels?

# Where is Web 3?



# Why Web 3?

# Why Web 3?

Read

Write

Own

# Why Web 3?

Read

Write

Own

- Ownership of Data
- Ownership of Rewards

# What in web3?

Problems to solve

# What in web3?

## Problems to solve

Data access

Rewards distribution (particularly cash)

No direct ownership of rewards

GDPR Compliance

## Potential solution

# What in web3?

## Problems to solve

Data access

## Potential solution

=> Data protector? Web3Mail?

Rewards distribution (particularly cash)

=> Cryptocurrencies?

No direct ownership of rewards

=> Tokenization of rewards?

GDPR Compliance

=> ZKP?

## Extra check

# What in web3?

## Problems to solve

Data access

Rewards distribution (particularly cash)

No direct ownership of rewards

GDPR Compliance

## Potential solution

=> Data protector? Web3Mail?

=> Cryptocurrencies?

=> Tokenization of rewards?

=> ZKP?

## Extra check

- Integration and UX
- Wallet
- Regulations



Boonty focuses on Data.

Boonty must respect data privacy and remain transparent on its management.

By using **Zero Knowledge Proof**, persona of users can be approved without disclaiming and owning any **personal information**. Important element for users profiling.

On longer term, any call to ZK would be an opportunity to **reward the user based on his persona**.

Boonty wishes to put the base of a good data management so that users can have control back on the monetization of their data while Cookies tiers are disappearing.

Whenever a user shares a data, it should be rewarded.

# Data Protector - Web3 Mail

## iExec use case of Data Protector

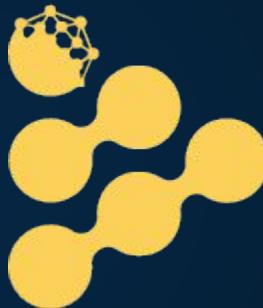
User controls the number of e-mail and senders

User gets rewarded for each e-mail received

Brands do not know the final e-mail of the user

E-mail can be revoked

E-mail cannot be sold to tier companies



**iExec**

# Data Protector - Web3 Mail

## Two main functions:

**fetchMyContacts:** returns the list of Ethereum accounts whose owners have authorized to email them.

A user calls the fetchMyContacts function that runs the following steps:

- Send a request to the Marketplace API to recover the list of datasetorders for which the owners have granted permission to the user to access and utilize their protected dataset.
- Request the corresponding protected datasets to the Graph.
- Verify whether each dataset includes an email field, ensuring that the schema of each protected dataset matches with 'email:string'.
- Return to the user the list of valid contacts, including the protected dataset and owner addresses.
- 

**sendEmail:** sends an email to a user by knowing only the Ethereum account

# Cryptocurrencies

Advantages:

- 
- 
- 

Disadvantages:

-

# Cryptocurrencies

Advantages:

- Regulation
- Direct ownership
- Web3 project rewarding their token

Disadvantages:

- Regulatory framework

# NFT / SBTs

Management of NFTs can offer multiple features:

- 
- 
- 
- 

ERC-1155? ERC-404? ERC-721?

# NFT / SBTs

Management of NFTs can offer multiple features:

- Verification of NFT ownership to **join a community**
- **Tokenization** of Voucher rewards
- Attribution of badges **rewarding the contribution** of active members
- Detection of **best contributors**

Initial focus would be on ERC-1155 tokens

# Distribution of rewards

Boonty **cannot hold the rewards** to avoid PSAN registration

Boonty cannot **control the funds flows**

Boonty must be **GDPR** compliant

**Boonty**

**Wallet**

# Wallet

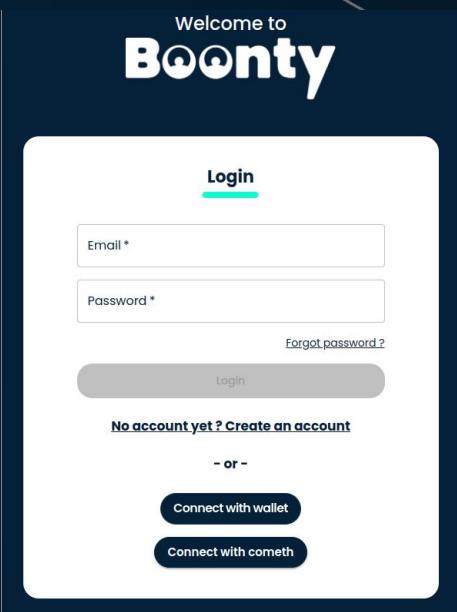
Boonty

## Wallet Connect

- Allows web3 Afficionados to connect their wallet

## Account Abstraction

- A way to have web2 users owning a wallet
- Sponsoring of Gas Fees



# Sponsoring of gas fees

# Sponsoring of gas fees

- Smoother experience
- Some blockchain are considered **Gas-less** (Their fees are covered through subscription or sponsoring fees.)
- This way the users could get their reward despite the choice of blockchain.
- The brands paying for rewards could be sponsoring these fees

# Thank you

**Questions? Feedback?**