

**DR. ANDRAS RUNG**

Ergomania  
CEO-owner

# BLOCKCHAIN INTERFACES THAT MATCH USERS' NEEDS



Leading digital product design team in Budapest  
16 years of experience

## OUR CUSTOMERS



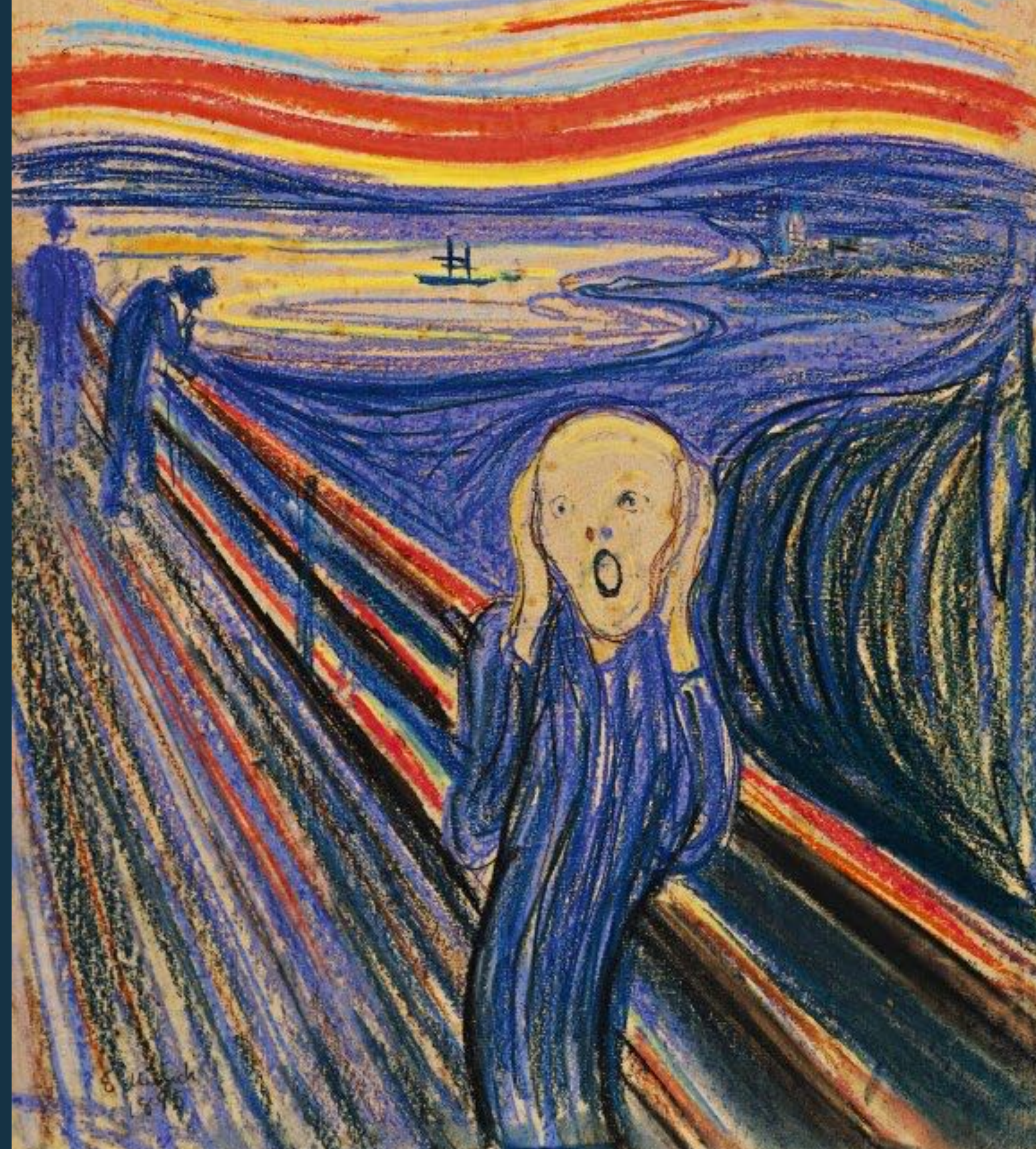


# FEAR OF THE UNKNOWN

- Unclear benefits
- Non-matching mental models
- Terrible UX



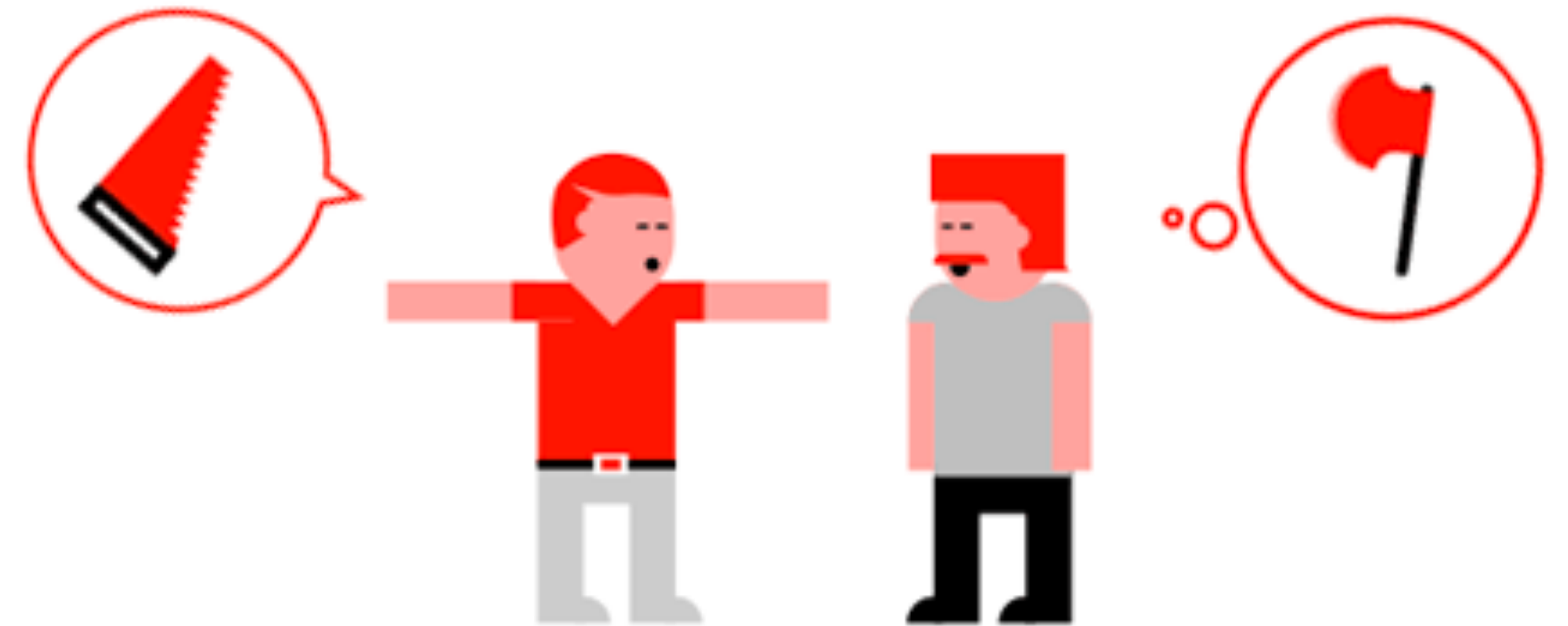
[ergomania.eu](http://ergomania.eu)  
[andras.rung@ergomania.eu](mailto:andras.rung@ergomania.eu)





# WHAT ARE MENTAL MODELS?

- Relatively precise mental image of our regular activities
- Defines how we interact with known processes or with something similar to them
- Formed by our earlier experiences
- Typical financial activities also based on mental models:
  - Swipe bankcard
  - Send money
  - Take out money from ATM





# MENTAL MODEL FOR CRYPTOCURRENCIES?

- No proper model
- Reality is too complicated
- No real routine (e.g torrenting 10 years ago)
- Far removed from our financial habits
- Teenagers will have earlier mental model for cryptocurrencies than for standard banking



ergomania.eu  
andras.rung@ergomania.eu





# SIMILIARITIES TO REAL MONEY

- Can be transferred
- Can be exchanged
- Represents value
- Bankers are the miners



ergomania.eu  
andras.rung@ergomania.eu





# HOW CRYPTOCURRENCIES DIFFER?

- Starts with a lot of 0s
- Addresses cannot be spoken or memorised
- Mistakes are easy to make
- Sending fees are changing
- Inheritance is complicated



ergomania.eu  
andras.rung@ergomania.eu





# ONBOARDING

- Education is needed due to radical innovation
- Differences should be emphasised
- Progressing in steps
- Active guidance: hints, tooltips
- All scenarios should be covered



ergomania.eu  
andras.rung@ergomania.eu



## WALLET SETUP

Okay. Let's set up your wallet!

Do you already have a seed  
that you would like to use?



The IOTA seed is like the username  
and password to your account,  
combined into one string of  
characters. You can use this to  
access your funds from **any wallet**,  
on **any device**.

YES - I have a seed

NO - I need a new seed

# COMMUNICATION

- Be clear and current
- Explain the next steps
- Help users understand the current stage
- Humanise the conversation: Telex AI chatbot / voicebot



ergomania.eu  
andras.rung@ergomania.eu

A screenshot of a mobile application interface for currency exchange. The screen displays a transaction summary for an amount of €2,000, which has been converted to ₺0.140855. Below the main amount, there are three circular icons: 'Repeat' (a circular arrow), 'Statement' (a document icon), and 'Hide' (an eye with a slash). At the bottom, a table provides further details: 'Bought' is ₺0.140855, 'Exchange rate' is ₺1 = €14198.9989, and 'Fee' is ₺0.

Bought	₺0.140855
Exchange rate	₺1 = €14198.9989
Fee	₺0



## Your Accounts



### BTC Account

2.28017732 BTC ≈ \$6,259.29

Send

Receive



### ETH Account

50.00803123 ETH ≈ \$11,288.81

Send

Receive



### LTC Account

20.00000000 LTC ≈ \$863.80

Send

Receive



### USD Account

94.01 USD

Deposit

Withdraw



JUL  
30



Sent Bitcoin

To Bitcoin address

-0.00122923 BTC

-\$3.35

JUL  
23



Sent Bitcoin

To Miha Rebernik

-0.021848 BTC

-\$59.99

JUL  
21



Sent Bitcoin

To Bitcoin address

-0.00087388 BTC

-\$2.31

JUL  
20



Received Bitcoin

From Satoshi Nakamoto

+0.07593 BTC

+\$199.99

JUL  
14



Sent Bitcoin

To Bitcoin address

-0.00132416 BTC

-\$2.86

JUL  
05



Received Bitcoin

From Satoshi Nakamoto

+0.076307 BTC

+\$200.00

JUN



Bought Bitcoin

+0.01984059 BTC



### Your Accounts



#### BTC Account

2.28017732 BTC ≈ \$6,202.08

Send

Receive



#### ETH Account

50.00803123 ETH ≈ \$11,076.28

Send

Receive



#### LTC Account

20.07016052 LTC ≈ \$857.20

Send

Receive



#### USD Account

90.00 USD

Deposit

Withdraw



#### Vault

+ New Account

### Deposit USD

Bank Deposit Wire Transfer



You are about to withdraw \$10.00 from Bank of America - BofA... \*\*\*\*\*3981.



Your funds will arrive by Wednesday, 8/9/2017.



\$10.00 will be deposited into USD Account.

Cancel

Confirm

MAY 17



Sold Bitcoin

Using USD Account

+\$53.49

+\$53.49

MAY 17



Sold Litecoin

Using USD Account

+\$30.52

+\$30.52

-\$4.01

-\$4.01

-\$5.99

-\$5.99

-\$57.37

-\$57.37

+\$55.24

+\$55.24

+\$18.12

+\$18.12



# Send Bitcoin

Currency:

Bitcoin

From:

My Bitcoin Wallet (0 BTC)

To:

Paste or scan an address or select a destination

Amount:

1

BTC



10500,89

USD

Description: ?

Money for rent 🏠

Transaction Fee:

Regular

You do not have enough funds to use this fee.

[Customize Fee](#)

CONTINUE

Bitcoin ATM

We sell at: 230 276 Ft

Ether



We sell at

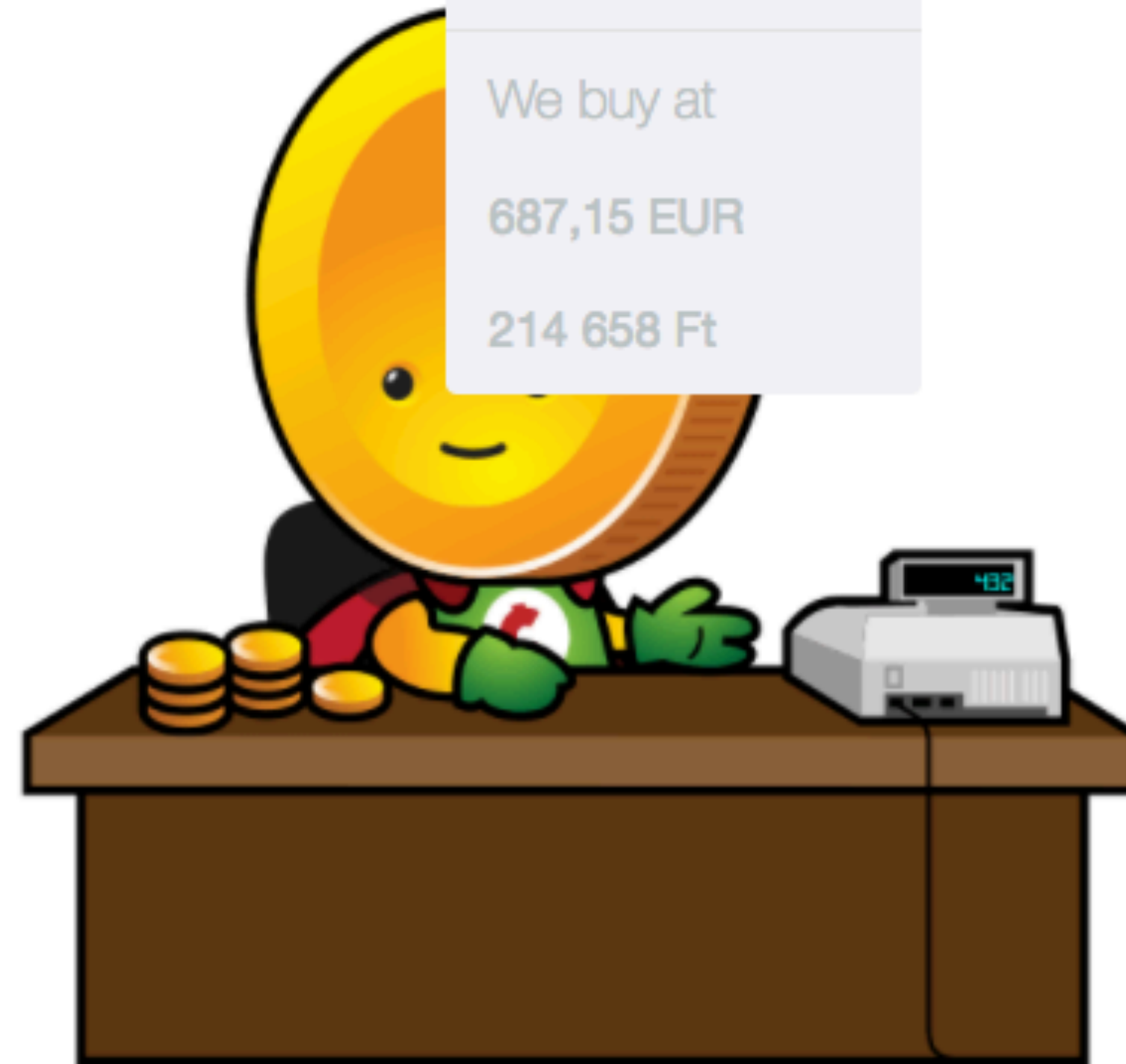
729,81 EUR

230 276 Ft

We buy at

687,15 EUR

214 658 Ft





# TRUST

- Trustable design (Desirability test)
- Predictable
- Consistent
- Data exposure



“Old school” blockchain tools show you a lot of long cryptographic hashes. They’re not human readable. They’re of no use to a user...and yet people like them! Why? It’s a feeling of comfort: “I can see a non-human readable chaincode ID, so I believe that this thing I’m looking at is secure.

— Ed Moffat, Design Lead, Fabric Composer



ergomania.eu  
andras.rung@ergomania.eu






9:41

Rates & conversions

Rates Converter

+ Add currency

 BTC Bitcoin	1.00
 LTC Litecoin	73.14
 ETH Ether	12.51

Go to exchange

9:41

Historical rates

BTC → ETH  
Bitcoin → Ether

72.1204 lowest    73.1468 current    73.2004 highest






1d   1w   1m   3m   6m   1y

9:41

Rates & converter

Rates Converter

+ Add currency pair

1 BTC Bitcoin		73.1468 Litecoin - LTC
1 LTC Litecoin		0.1710 Ether - ETH
1 ETH Ether		0.0799 Bitcoin - BTC

Go to exchange



# GIVING FEEDBACK AND ERROR HANDLING

- Explain the result of the last steps
- Pay special attention to irreversible actions
- Show how cryptocurrencies differ from fiat moneys



ergomania.eu  
andras.rung@ergomania.eu



The image shows a mobile application screen titled "SAVE YOUR SEED". At the top, there is a glowing green circular logo. Below the title, there are three options: "Manual Copy", "Paper Wallet", and "Copy to Clipboard". The main content is a grid of 81 characters arranged in 7 rows and 2 columns, with a right-pointing arrow above the first row. The characters are: Row 1: H F T S 9 S A H F D E R; Row 2: Y C X S J L Q X S V B N; Row 3: W O F D D 9 9 A G E T D; Row 4: J R A G D A F G 9 H K E; Row 5: S C N A F Y D U O I A C; Row 6: E 9 D F H W K L A E E A; Row 7: Y Z T I P P O S W. Below the grid, the text "CHECKSUM: ARF" is displayed in yellow. A paragraph explains that the seed is 81 characters long, read left to right across the whole row, and is split into groups of 6 characters for easier copying. It also states that a seed can only contain capital letters A to Z or the number 9, and the checksum is 3 letters long. At the bottom, there are two buttons: "GO BACK" and "NEXT".

Manual Copy Paper Wallet Copy to Clipboard

H F T S 9 S A H F D E R  
Y C X S J L Q X S V B N  
W O F D D 9 9 A G E T D  
J R A G D A F G 9 H K E  
S C N A F Y D U O I A C  
E 9 D F H W K L A E E A  
Y Z T I P P O S W

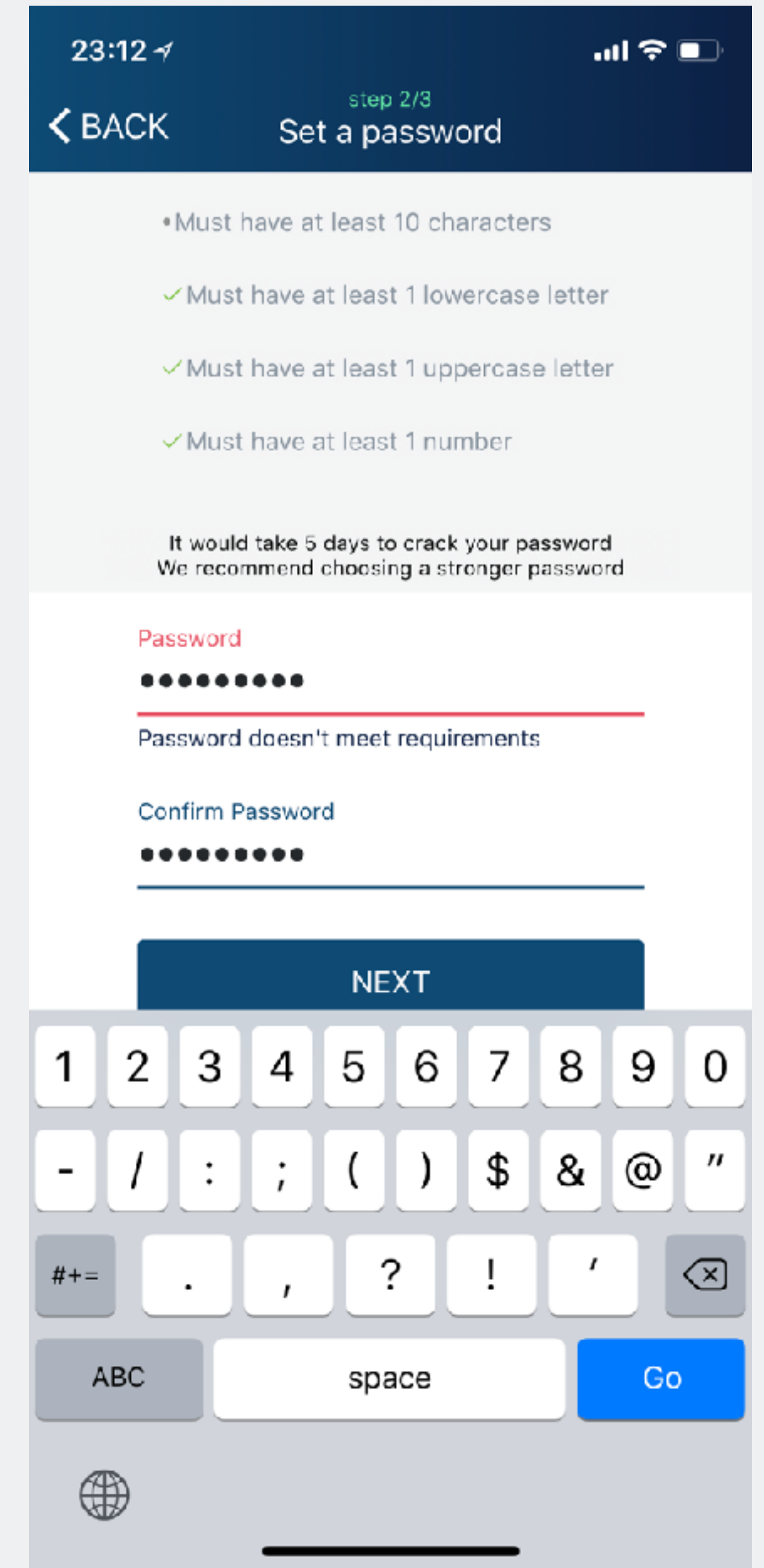
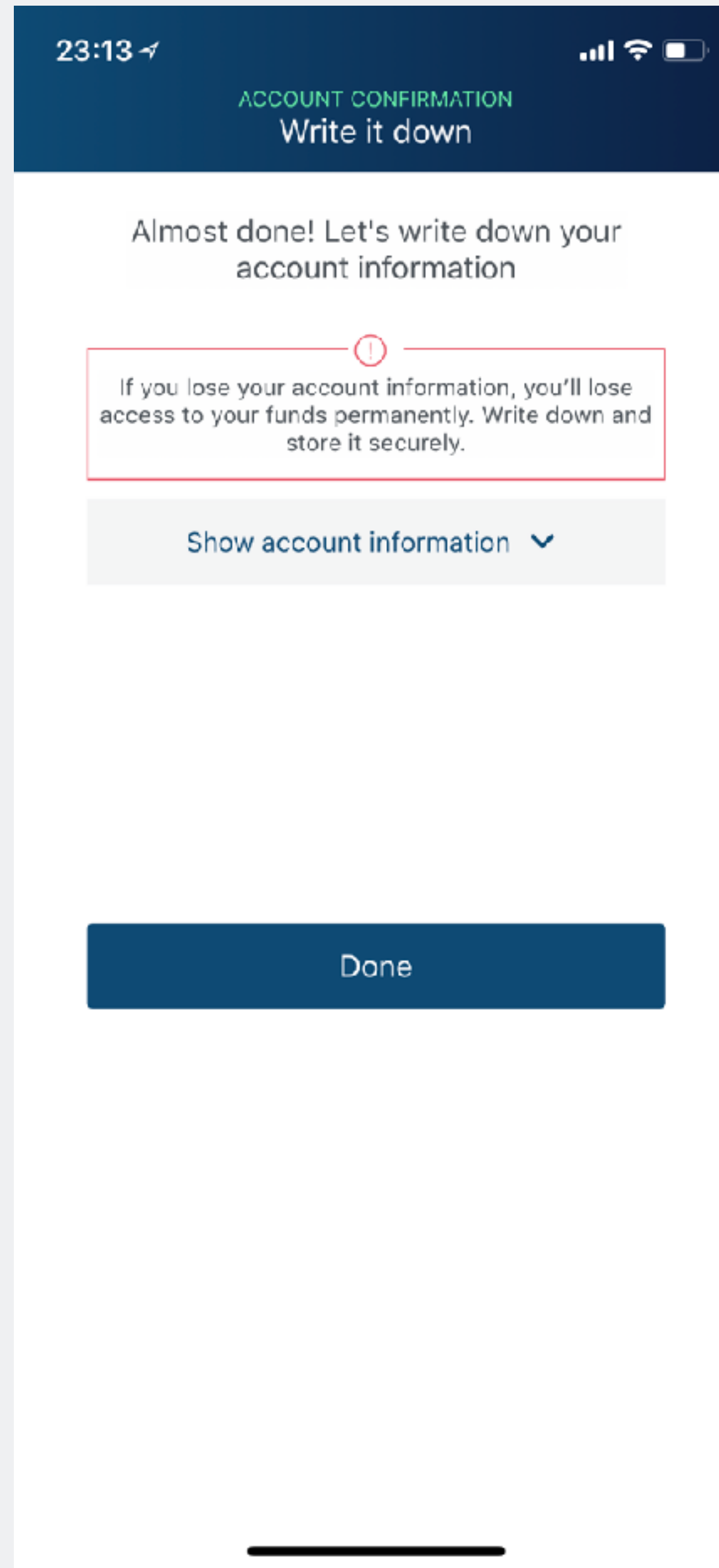
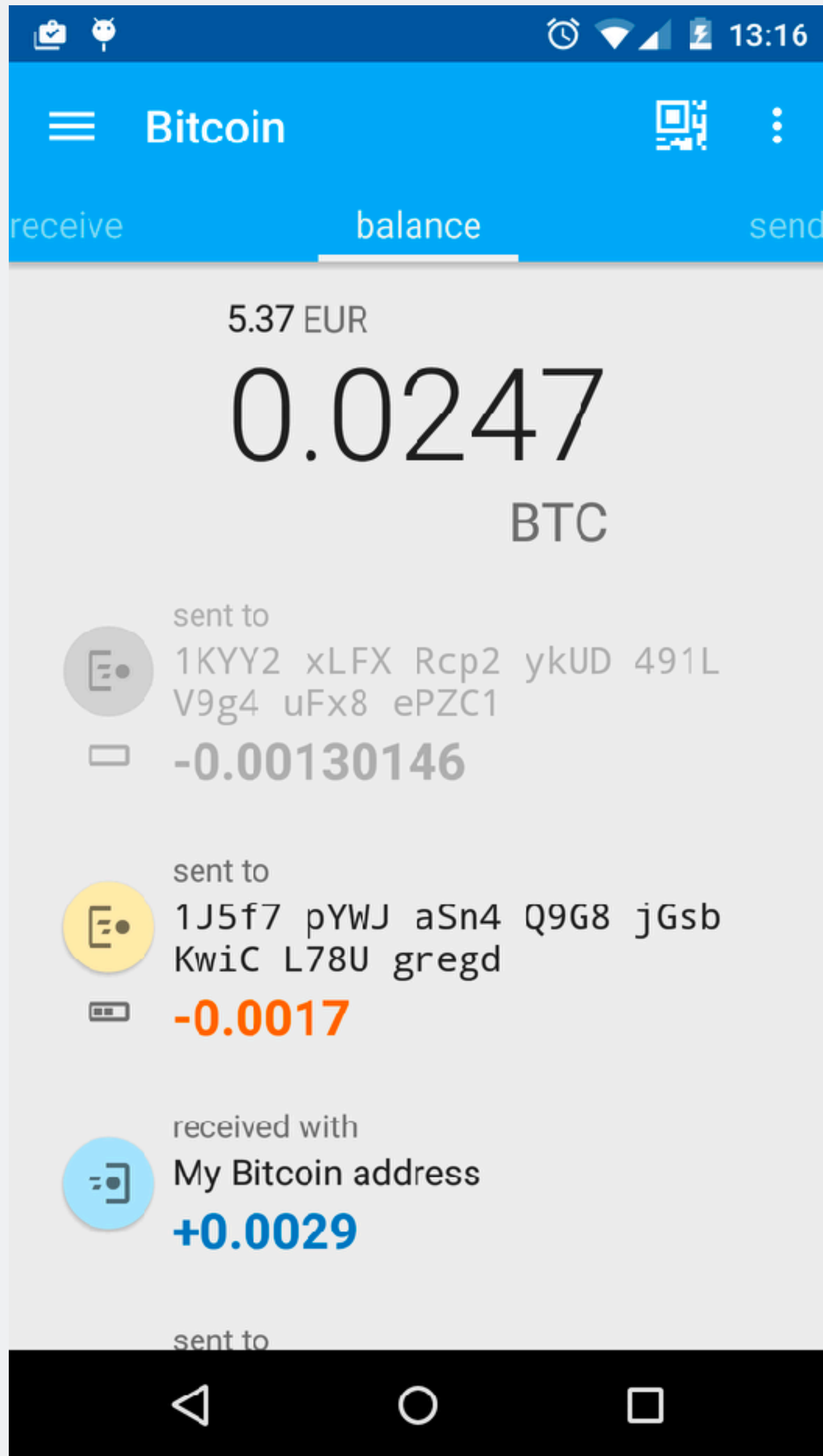
**CHECKSUM:  
ARF**

The seed is 81 characters, read left to right across the whole row (rather than in 2 columns). We have split the seed into **groups of 6** characters (+ 3 at the end) for easier copying. A seed can only contain capital letters A to Z, or the number 9. The checksum is 3 letters long.

Copy both the seed and checksum down onto paper and triple check to ensure there are no errors.

GO BACK NEXT

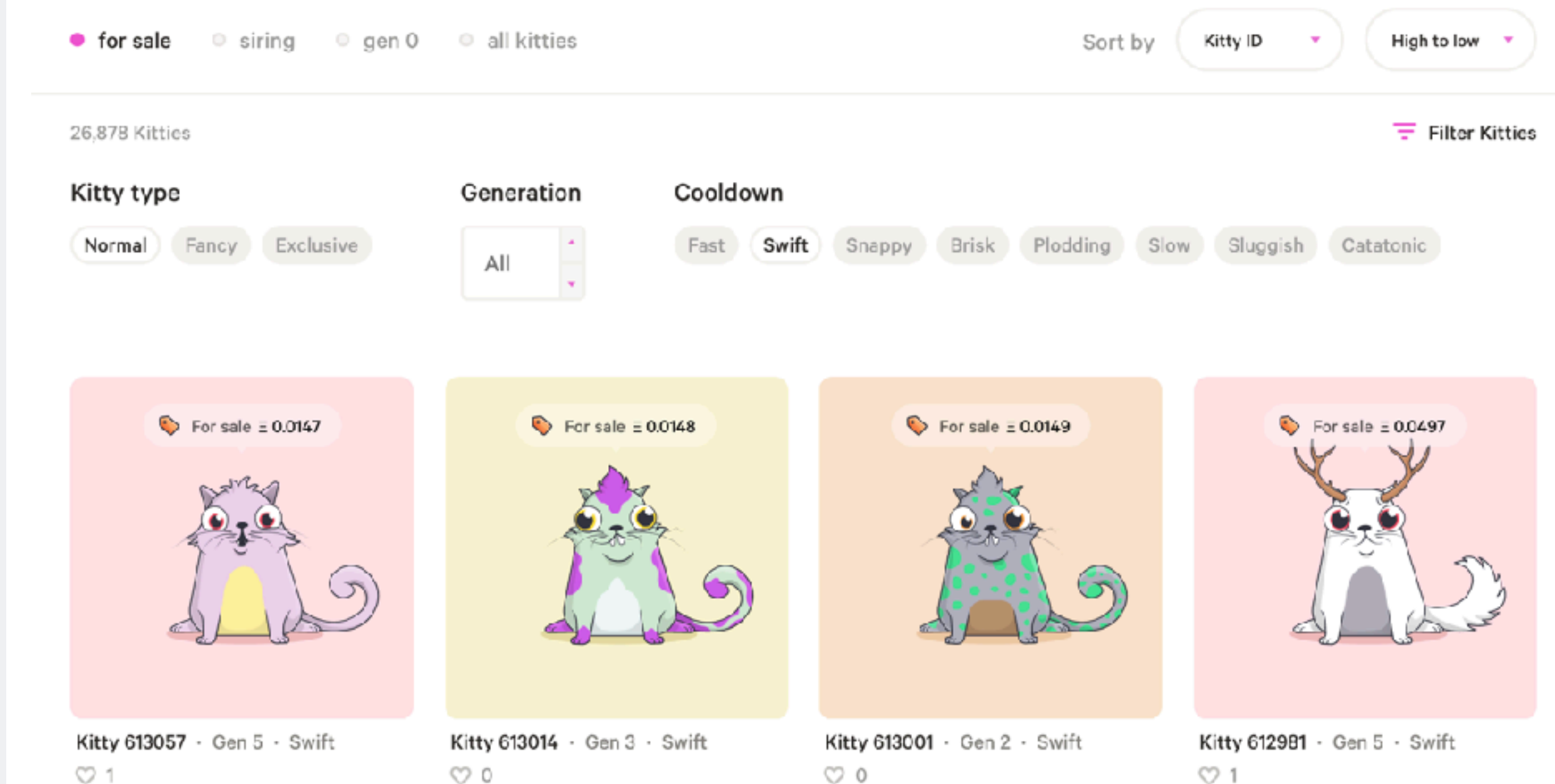






# CRYPTOKITTIES THE UX SUCCESS

- Reliable, modern frontend
- Transparent, easy-to-understand communication
- Established UX patterns
- Built-in gamification
- Plays with the notion of scarcity and uniqueness





# ISSUES TO CONSIDER WHEN DESIGNING BLOCKCHAIN INTERFACES

- There is no easily applicable mental model
- The users try to get a grasp of reality
- Bad experience prevents adaption
- Reliable research for better understanding
- Education and active guidance



ERGOMANIA

[ergomania.eu](http://ergomania.eu)  
[andras.rung@ergomania.eu](mailto:andras.rung@ergomania.eu)



**MAY THE  
BLOCKCHAIN  
BE WITH YOU!**

**DR. ANDRAS RUNG**

[andras.rung@ergomania.eu](mailto:andras.rung@ergomania.eu)

+36 30 397 5008

[www.ergomania.eu](http://www.ergomania.eu)



Leading digital product design team in Budapest  
16 years of experience

