

Token Spammers, Rug Pulls, and Sniper Bots

An Analysis of the Ecosystem of Tokens in Ethereum and in the Binance Smart Chain

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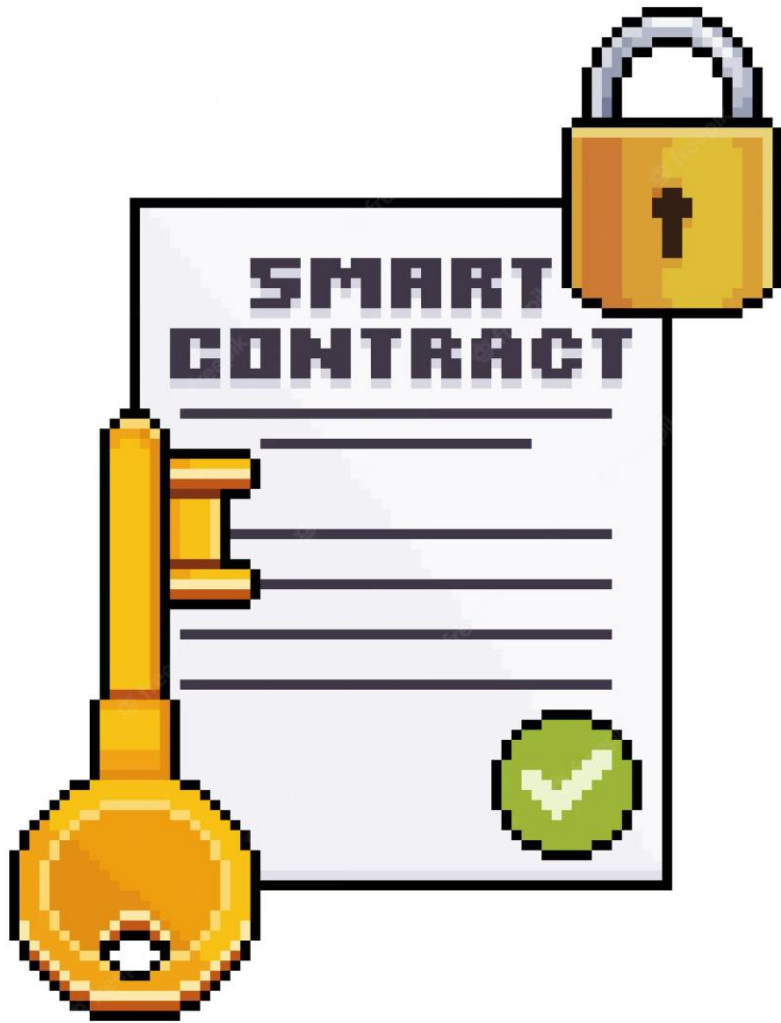
The background features a blurred view of a financial dashboard. It includes a candlestick chart with red and green bars, a line chart with multiple colored lines (green, yellow, red, blue), and a table of data. The table has columns for 'Crypto', 'Market Open', and 'USD'. A prominent value '1845.97' is visible in the table. The overall aesthetic is professional and data-driven.

DEX

Decentralized Exchanges



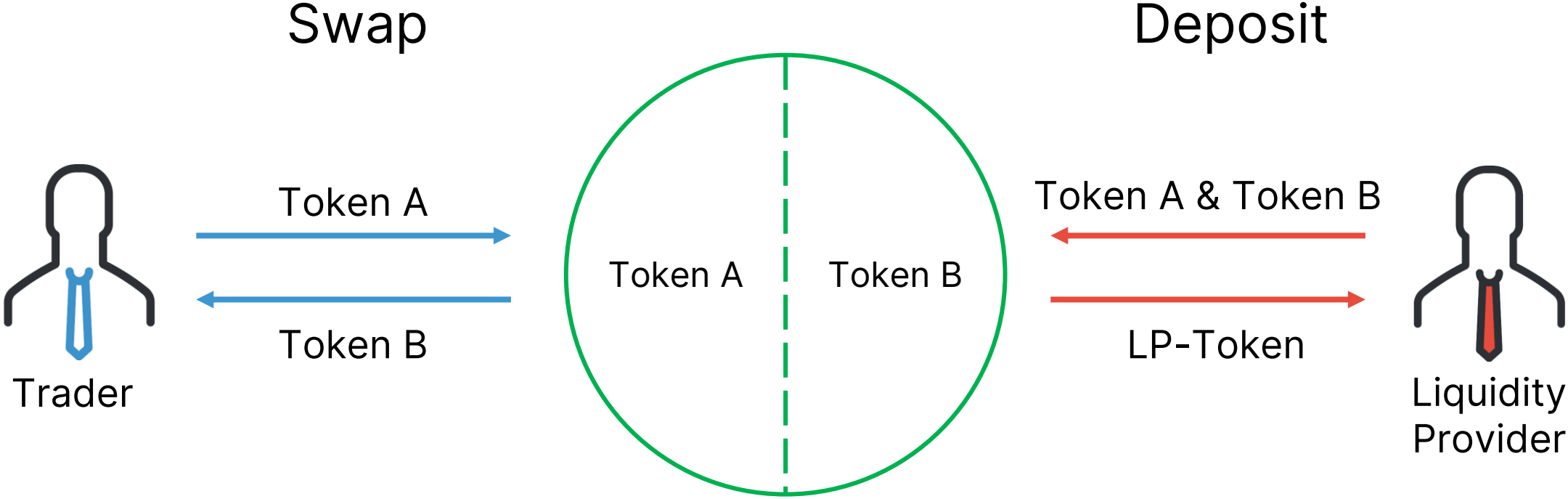
DEXes allow anyone to
create a market for a
token



Decentralized exchanges
employ smart contracts

Liquidity Pools

Liquidity Pools



Goals

In our work, we study the **ecosystem** of the **tokens** and **liquidity pools**

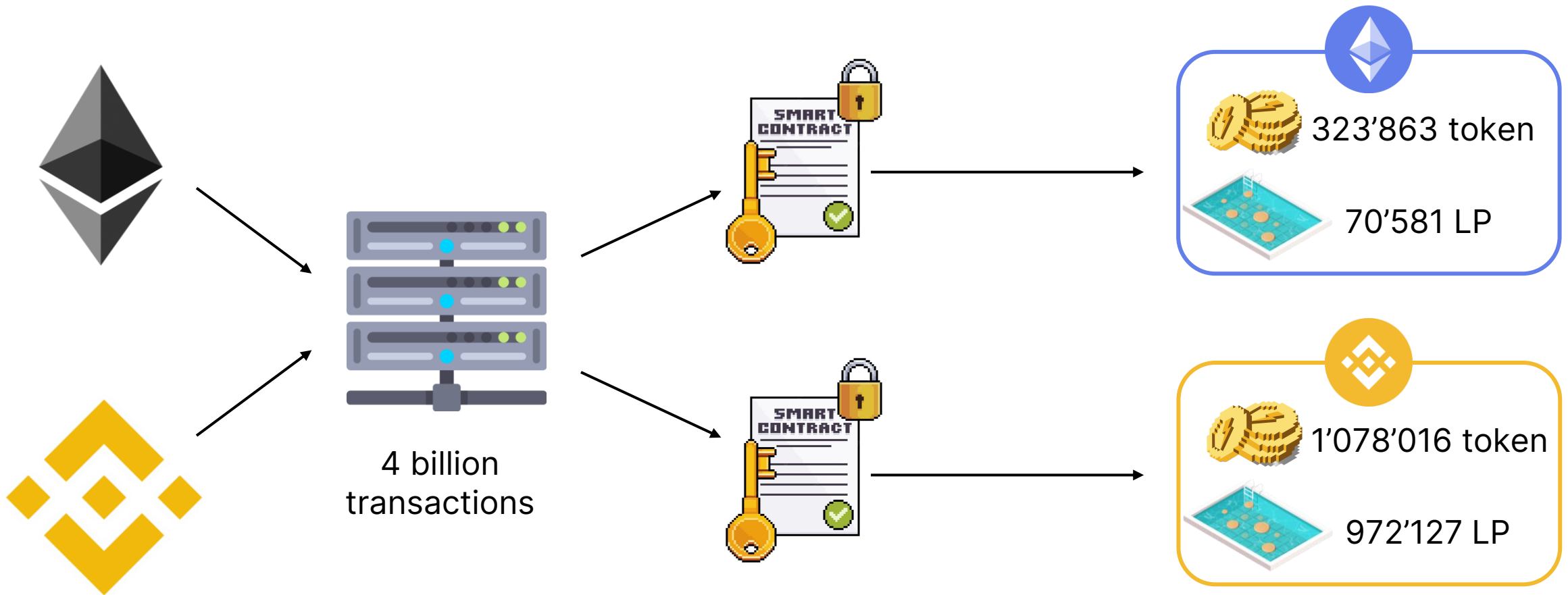
Blockchains

Ethereum



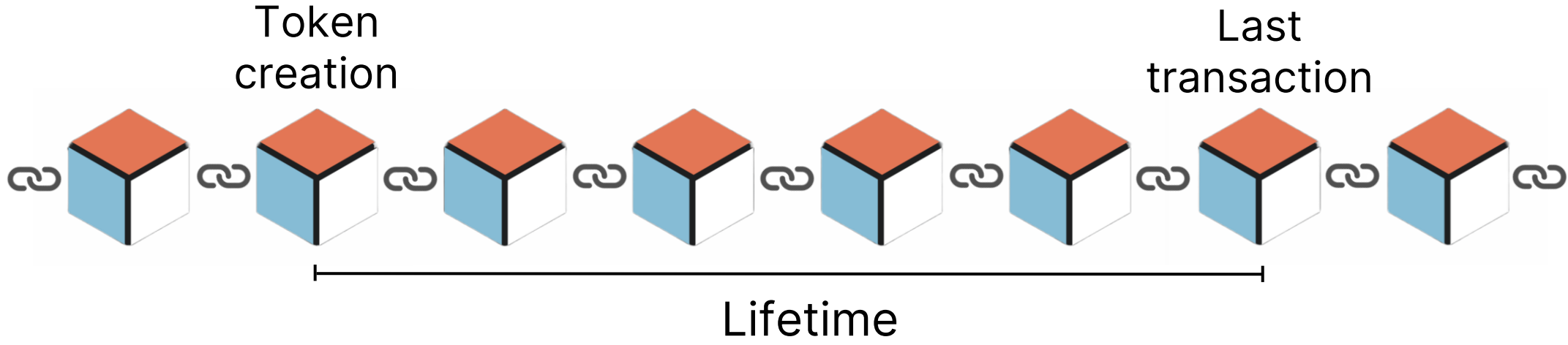
Binance Smart Chain





How long are tokens used?

Lifetime



60%

of tokens have a lifetime of less than 24 hours



1-day tokens

How many 1-day tokens are in a liquidity pool?

33.1%

on Ethereum

94.8%

on the Binance Smart Chain

Who creates the tokens?

Who creates the tokens?

1% → 20%

1% of addresses are responsible for creating over 20% of the tokens

1-day
token

More than half of the tokens created by the token spammers are 1-day tokens

Rug Pulls



Rug Pull

1 Token creation



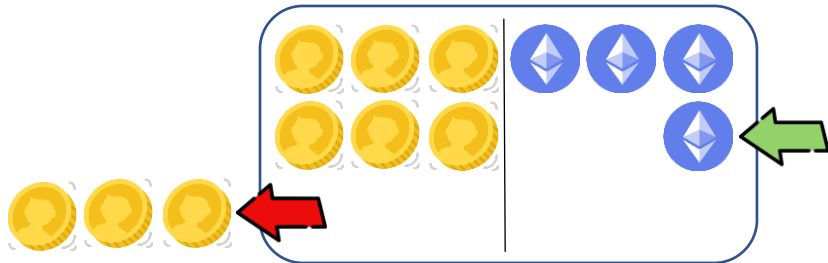
2 LP creation



3 Add liquidity



4 Swap



5 Remove liquidity



Gain = 1 ETH - fee

How extensive is the phenomenon?

Liquidity pools with a 1-day token and whose single liquidity provider removes all the liquidity

21,742 Ethereum's LP

272,349 BSC's LP

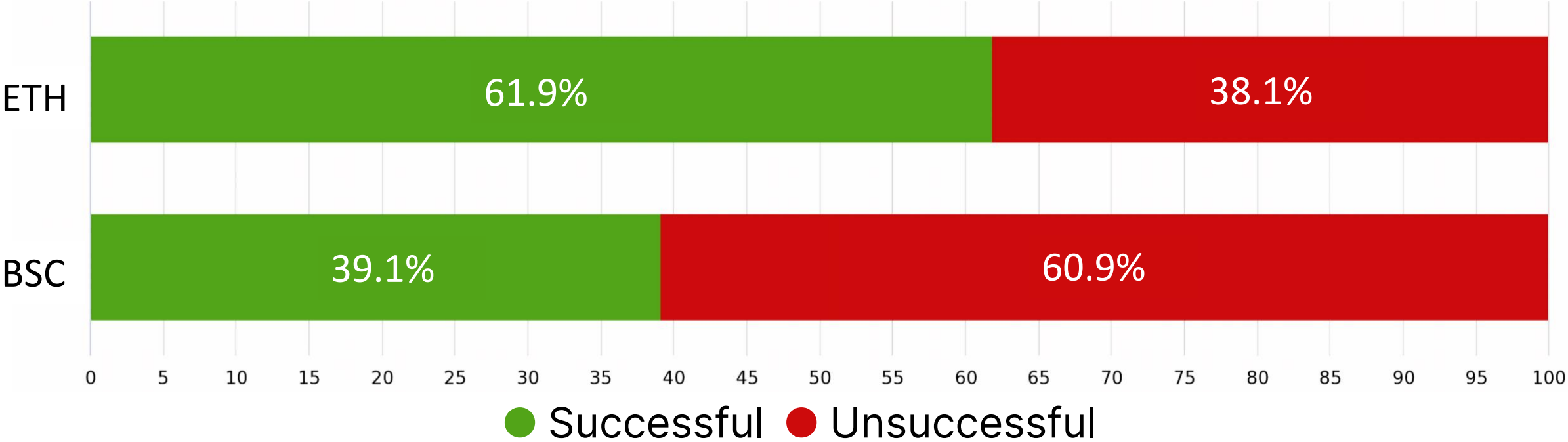


Rug Pull

80.7% of liquidity pools with a 1-day token are rug pulls

Profits

Profits



Profits

The average **gain** per rug pull is **\$33** in BSC and **\$2,538** in Ethereum

On Ethereum users tend to invest more money

The average **cost** per rug pull is **\$9** for BSC and **\$380** for Ethereum

The investment needed to perform this kind of rug pull is low

Who buys the tokens?

Sniper Bots

*Automated tools designed to buy tokens before anyone else,
and as soon as possible*

They scan the mempool for new liquidity pools

194

Sniper Bots

243,024

Liquidity Pools

27%

Swaps

Conclusions



More than half of the tokens have a life of less than 24 hours (*1-day tokens*)



A few addresses create a large number of tokens (*Token Spammers*)



The rug pull phenomenon is present in both of the analyzed blockchains



Sniper bots perform a substantial percentage of the swaps

Thanks

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