



SPYWOLF

Security Audit Report



Audit prepared for
RWA IMMO

Completed on
June 13, 2024



KEY RESULTS

Cannot mint new tokens	Passed
Cannot pause trading (honeypot)	Passed
Cannot blacklist an address	Passed
Cannot raise taxes over 25%?	Passed
No proxy contract detected	Passed
Not required to enable trading	*
No hidden ownership	Passed
Cannot change the router	Passed
No cooldown feature found	Passed
Bot protection delay is lower than 5 blocks	Passed
Cannot set max tx amount below 0.05% of total supply	Passed
The contract cannot be self-destructed by owner	Passed

For a more detailed and thorough examination of the heightened risks, refer to the subsequent parts of the report.

N/A = Not applicable for this type of contract

*Only new deposits/reinvestments can be paused





OVERVIEW

This goal of this report is to review the main aspects of the project to help investors make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✓ Contract's source code
- ✓ Owners' wallets
- ✓ Tokenomics
- ✓ Team transparency and goals
- ✓ Website's age, code, security and UX
- ✓ Whitepaper and roadmap
- ✓ Social media & online presence

“

The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal

- SPYWOLF Team -

”





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PROJECT DESCRIPTION

According to their website:

RWAIMMO is revolutionizing the way you invest in property. Our innovative platform allows you to purchase a share of real estate and earn rental income based on your investment percentage. Additionally, you can participate in staking, enhancing your returns through blockchain technology.

Our system is simple and transparent. By purchasing shares of a property with RWAIMMO, you become a part-owner of that property. Each investment is recorded on the blockchain, ensuring security and transparency. The rental income generated from the property is distributed among all shareholders according to their ownership percentage.

Plus, our staking mechanism allows you to earn additional rewards by locking your RWAIMMO tokens.

Release Date: Presale starts in June, 2024

Category: Token/Staking



CONTRACT INFO

Token Name
RWA IMMO

Symbol
RWAIMMO

Contract Address
0x963FF6A07cc8804DbfE4598304Dc159F497E5EDA

Network
Binance Smart Chain

Language
Solidity

Deployment Date
June 13, 2024

Contract Type
Staking

Total Supply
5,000,000,000

Status
Not launched

TAXES

Buy Tax
none

Sell Tax
none

Our Contract Review Process

The contract review process pays special attention to the following:

- ✓ Testing the smart contracts against both common and uncommon vulnerabilities
- ✓ Assessing the codebase to ensure compliance with current best practices and industry standards.
- ✓ Ensuring contract logic meets the specifications and intentions of the client.
- ✓ Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- ✓ Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat



TOKEN TRANSFERS STATS

Transfer Count	3
Uniq Senders	2
Uniq Receivers	3
Total Amount	7449425000 RWAIMMO
Median Transfer Amount	2500000000 RWAIMMO
Average Transfer Amount	2483141666.6666665 RWAIMMO
First transfer date	2024-06-12
Last transfer date	2024-06-12
Days token transferred	1

SMART CONTRACT STATS

Calls Count	6
External calls	2
Internal calls	4
Transactions count	3
Uniq Callers	2
Days contract called	1
Last transaction time	2024-06-12 19:01:48 UTC
Created	2024-06-12 17:12:36 UTC
Create TX	0xb08580f743387e86548d850d610a9c6fbfe1dd004758c7932ffe5289307c9faa
Creator	0x4cdab9e7ae7f870d36a04107965644e843f1e37b



FEATURED WALLETS

Owner address	0x4cDAB9e7ae7F870d36a04107965644e843fle37B
Marketing fee receiver	N/A
LP address	N/A

TOP 3 UNLOCKED WALLETS

50%	0x00aaaa Staking rewards address
1%	0x4cDAB9e7ae7F870d36a04107965644e843fle37B Same as owner
49%	0xf205e342de63a8763134d4c75907cf76EccE5539 Pinksale’s presale address



VULNERABILITY ANALYSIS

ID	Title	
SWC-100	Function Default Visibility	Passed
SWC-101	Integer Overflow and Underflow	Passed
SWC-102	Outdated Compiler Version	Passed
SWC-103	Floating Pragma	Passed
SWC-104	Unchecked Call Return Value	Passed
SWC-105	Unprotected Ether Withdrawal	Passed
SWC-106	Unprotected SELFDESTRUCT Instruction	Passed
SWC-107	Reentrancy	Passed
SWC-108	State Variable Default Visibility	Passed
SWC-109	Uninitialized Storage Pointer	Passed
SWC-110	Assert Violation	Passed
SWC-111	Use of Deprecated Solidity Functions	Passed
SWC-112	Delegatecall to Untrusted Callee	Passed
SWC-113	DoS with Failed Call	Passed
SWC-114	Transaction Order Dependence	Passed
SWC-115	Authorization through tx.origin	Passed
SWC-116	Block values as a proxy for time	Passed
SWC-117	Signature Malleability	Passed
SWC-118	Incorrect Constructor Name	Passed



VULNERABILITY ANALYSIS

ID	Title	
SWC-119	Shadowing State Variables	Passed
SWC-120	Weak Sources of Randomness from Chain Attributes	Passed
SWC-121	Missing Protection against Signature Replay Attacks	Passed
SWC-122	Lack of Proper Signature Verification	Passed
SWC-123	Requirement Violation	Passed
SWC-124	Write to Arbitrary Storage Location	Passed
SWC-125	Incorrect Inheritance Order	Passed
SWC-126	Insufficient Gas Griefing	Passed
SWC-127	Arbitrary Jump with Function Type Variable	Passed
SWC-128	DoS With Block Gas Limit	Passed
SWC-129	Typographical Error	Passed
SWC-130	Right-To-Left-Override control character (U+202E)	Passed
SWC-131	Presence of unused variables	Passed
SWC-132	Unexpected Ether balance	Passed
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Passed
SWC-134	Message call with hardcoded gas amount	Passed
SWC-135	Code With No Effects	Passed
SWC-136	Unencrypted Private Data On-Chain	Passed



VULNERABILITY ANALYSIS

NO ERRORS FOUND



MANUAL CODE REVIEW

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time.

We categorize these vulnerabilities by 4 different threat levels.

THREAT LEVELS

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance, functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.



FOUND THREATS

High Risk

No high risk-level threats found in this contract.

Medium Risk

No medium risk-level threats found in this contract.

Low Risk

No low risk-level threats found in this contract.



FOUND THREATS

Informational

Owner can add new homes (stakes) with various parameters such as quantity, price, referral, min and max shares.

```
function agencyAddHome(  
  string calldata ref,  
  uint256 price,  
  uint256 part_quantity,  
  uint256 min_part,  
  uint256 max_part  
) external isOwner {  
  Homes[home_id] = Home({  
    ref: ref,  
    id: home_id,  
    created_at: block.timestamp,  
    is_active: false,  
    options: HomeOptions({  
      price: price,  
      part_quantity: part_quantity,  
      min_part: min_part,  
      max_part: max_part,  
      quantity_selled: 0  
    })  
  });  
  
  _Homes[home_id] = true;  
  
  home_id += 1;  
}
```




FOUND THREATS

Informational

Owner can pause future staking for already created home (stake) ID.
Users already staked for that home ID and their claims are not affected.

```
function agencyActivate(uint256 _home_id, bool _is_active)
    external
    isOwner
{
    require(_Homes[_home_id] == true);
    Homes[_home_id].is_active = _is_active;
}
```

Owner can change APY for stakes up to 10000.
Current max APY is 5000 for 4 years period stake.

```
function updateStakingPeriods(uint256 _pos, uint _apy) public isOwner returns(bool) {
    require(PeriodsAgency[_pos].period != 0);
    require(_apy > 100 && _apy < 10000);

    PeriodsAgency[_pos].apy = _apy;
    PeriodsAgency[_pos].penalty = _apy;

    return true;
}
```



FOUND THREATS

Informational

Users can claim their rewards once in 30 days period.

```
uint256 private _claimAgencyInterval = 86400 * 30;

function agencyClaim(uint256 _pos) public nonReentrant
    returns (bool)
{
    address owner = _msgSender();

    require(Owners[owner].length > 0);
    require(Owners[owner][_pos].staked_at != 0);
    require(Owners[owner][_pos].unstaked_at == 0);
    require(
        canClaim(
            Owners[owner][_pos].claim_at,
            _claimAgencyInterval,
            block.timestamp
        )
    );
    .....
}

function canClaim(
    uint256 lastClaimAt,
    uint256 intervalInSeconds,
    uint256 currentTime
) private pure returns (bool) {
    return
        lastClaimAt == 0 || currentTime - lastClaimAt > intervalInSeconds;
}
```



FOUND THREATS

Informational

Users may not participate in more than 200 stakes with one wallet.

```
uint256 private _maxStakeIterationByAddress = 200;
function agencyBuy(
    uint256 _home_id,
    uint256 _quantity,
    uint256 period
) external inProgressAgency nonReentrant returns (bool) {
    require(!_Homes[_home_id]);
    require(Homes[_home_id].is_active);

    require(period == 0 || period == 1 || period == 2 || period == 3);

    address owner = _msgSender();

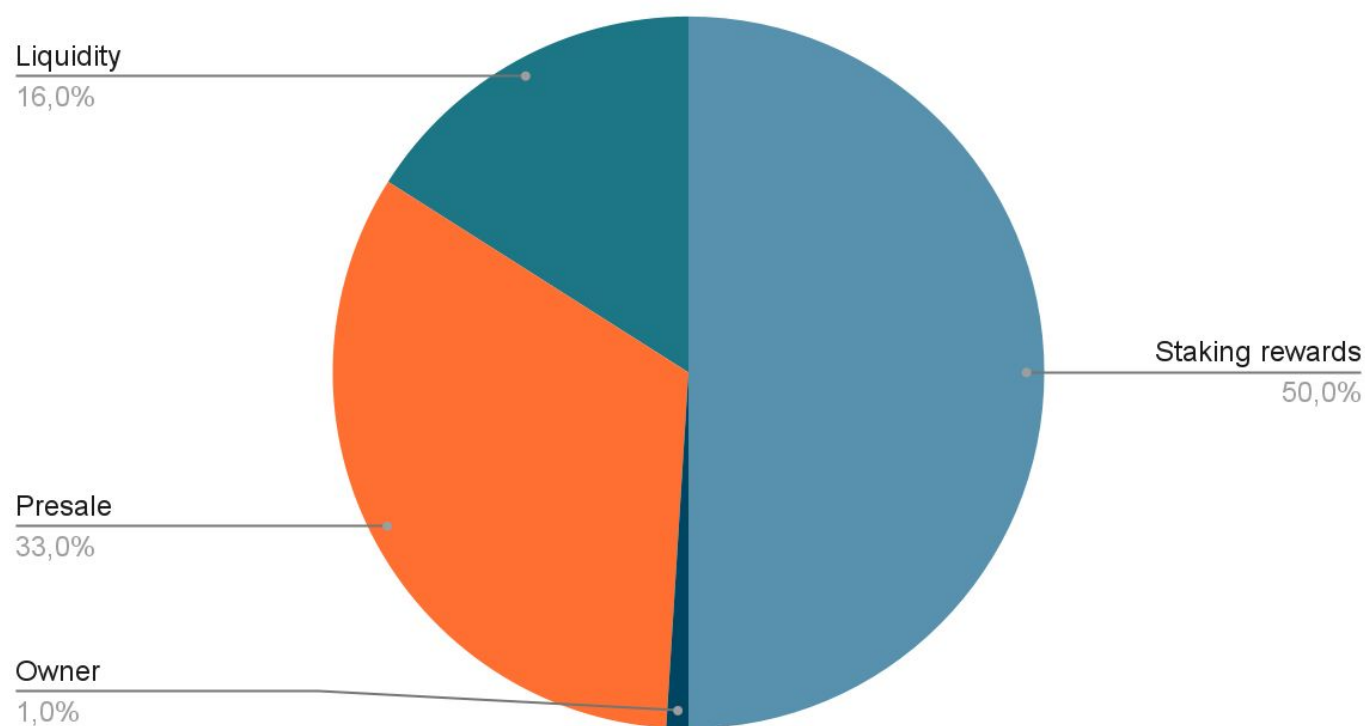
    require(OwnersPosition[owner] < _maxStakeIterationByAddress);
    .....
}
```



The following tokenomics are based on Pinksale's presale page:

- 50% - Staking rewards
- 33% - Presale
- 16% - Liquidity
- 1% - Owner

Tokens distribution



For more information about the RWA staking, read their whitepaper:
<https://docs.rwa-immo.com/>

Staking apps can be subject of sharp volatility and price fluctuations.



WEBSITE

Website URL

<https://rwa-immo.com/>

Domain Registry

<https://www.bookmyname.com>

Domain Expiration

2025-06-06

Technical SEO Test

Passed

Security Test

Passed. SSL certificate present

Design

Single page design with appropriate color scheme and graphics.

Content

The information helps new investors understand what the product does right away.

No grammar mistakes found.

Whitepaper

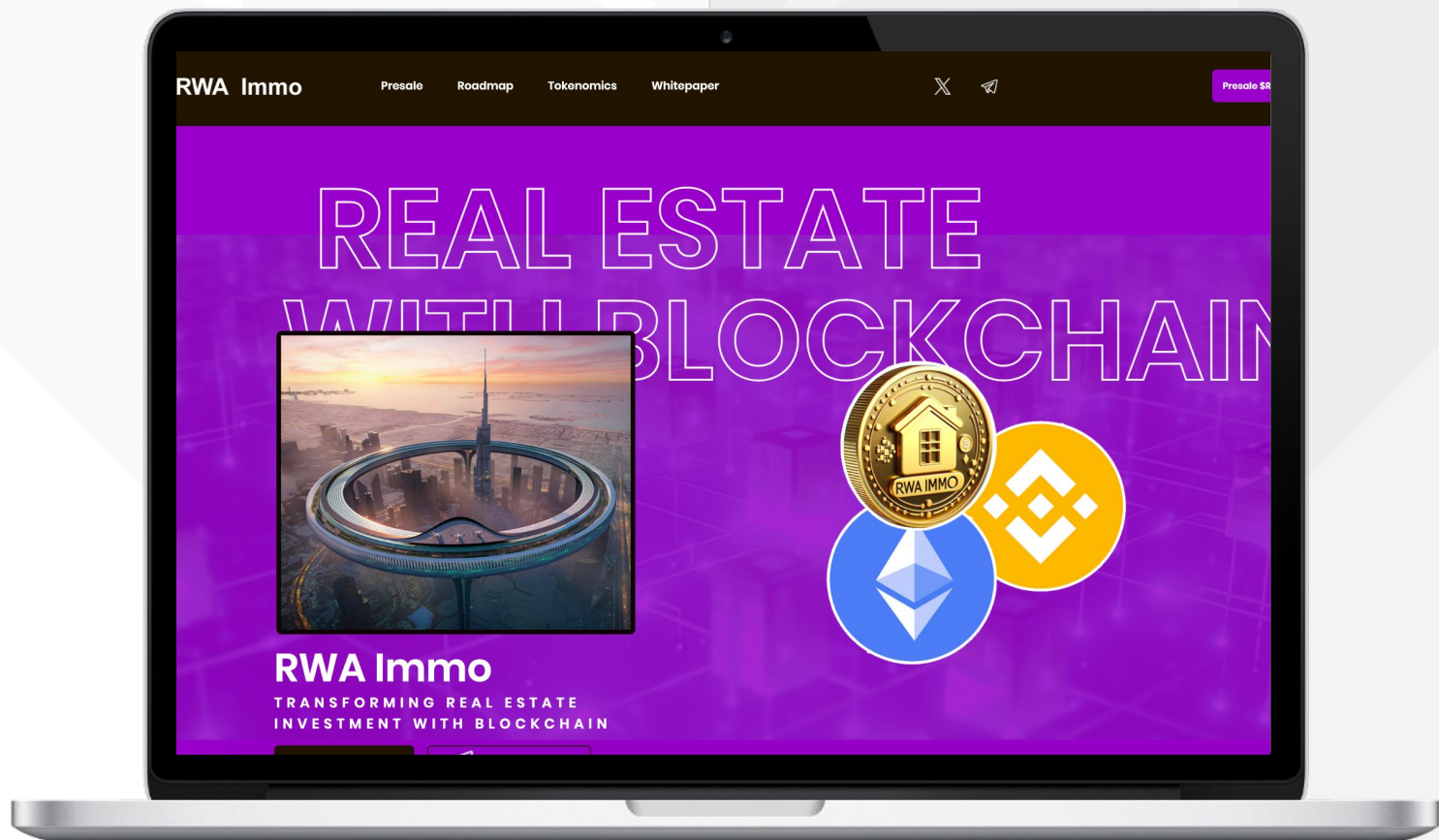
Well written, explanatory.

Roadmap

Yes, goals set with time frames.

Mobile-friendly?

Yes



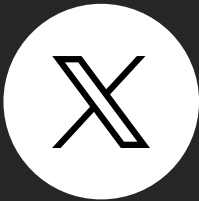
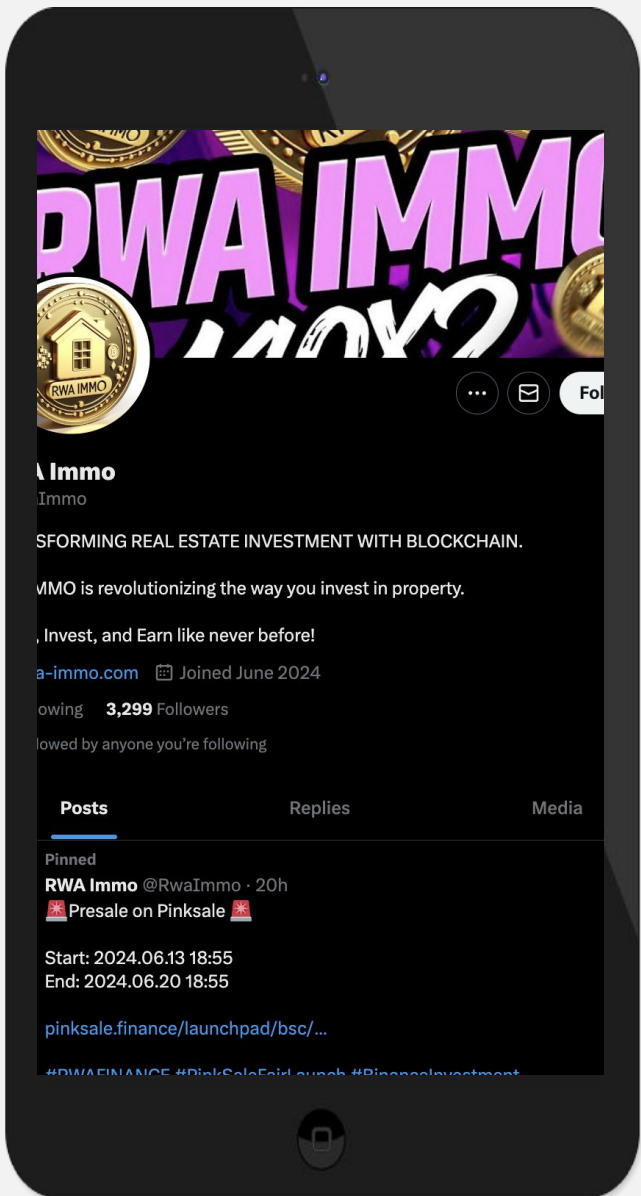
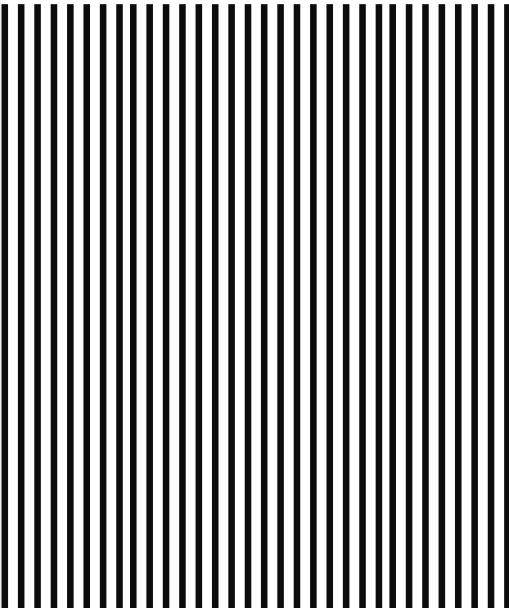
rwa-immo.com



SOCIAL MEDIA & ONLINE PRESENCE



ANALYSIS
Project's social media
pages are active



Twitter's X
@rwaimmo

- 3 275 followers
- Posts frequently
- Active



Discord

- Not available



Telegram
@rwaimmo

- 4 608 members
- Active members
- Active mods



Medium

- Not available



SPYWOLF

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We are a growing crypto security agency offering audits, KYCs and consulting services for some of the top names in the crypto industry.

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.

While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.

