WHITE PAPER · OFFICIAL DOCUMENT

EDIENPOL (EPOL)
Real-Yield DeFi Protocol

An ecosystem that connects AI trading, walking data and real-world revenue

VERSION
V3.0

PUBLISHED
October 2026

NETWORK
Polygon Mainnet

STATUS
Phase 3 complete, Phase 4 in progress

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LAST UPDATED
October 29, 2026

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Executive Summary

EDIENPOL ("EPOL") is a Real-Yield DeFi protocol on the Polygon blockchain, issued and operated by Michelle Won Group and the EDIAN Foundation. On top of on-chain infrastructure made up of a decentralized exchange (DEX), farming, vaults and games, EPOL connects two real-world services that generate actual cash flow, building a sustainable, non-Ponzi ecosystem.

- **SNP-BOT** : An AI trading bot whose quant algorithm trades 24/7 in the user's own exchange account. Assets stay in the user's account, there is no bot fee, and profits are split 50:50 only when a net profit is made.
- **Walkdoni** : An IoT smart-shoe and Move-to-Earn platform developed and manufactured by Noitaboni Co., Ltd. The shoe verifies each step, WDP points accumulate, and WDP can be spent at the Walkdoni Mall or exchanged for EPOL.

EPOL's core mechanism is the **Real-Yield Buyback Engine** . Real revenue that enters from outside the protocol — SNP-BOT performance fees, Walkdoni ecosystem revenue and DEX fees — is used to buy tokens on the market through a weekly TWAP, and the purchased tokens are allocated to holder dividends, permanent burns and the DAO treasury. Buybacks are funded by real service revenue, not by new investor inflows. Whether and how much to buy back is set by operating policy, and token holders have no right to demand a buyback.

EPOL runs a dual-token system:

- **EPOL (utility token · ecosystem fuel)** : DEX trading and liquidity, farming and vaults, WDP exchange and Walkdoni Mall payments, SNP-BOT settlement, governance
- **WBEDR (value token)** : 1 billion tokens already issued (no further minting); staking tiers, dividends, buyback benefits and weighted governance

EPOL already operates advanced DeFi infrastructure — a fully functional DEX, MasterChef-style farming, ERC-4626 auto-compounding vaults, an anti-whale router and burn games — and every smart contract has completed a security audit.

1. Problem Statement

1.1 Fundamental Problems in DeFi

Most projects in today's DeFi market share the following problems:

1) Unsustainable Tokenomics

- Ponzi structures that depend solely on new investor inflows
- No link to the real economy
- Price collapses driven by team sell pressure

2) Phantom Yields

- Unsustainably high APYs that trading fees alone cannot support
- Self-burned tokens presented as "revenue"
- No mechanism that generates real external revenue

3) Whale Manipulation

- Price manipulation by whales deploying large capital
- Trading practices that induce liquidations of retail investors
- Market fairness issues

4) No Real Economy Connection

- Only purely virtual assets exist
- No real business model, so no external revenue
- No investor protection mechanism

1.2 Problems Faced by Retail Investors and Real-World Services

1) Structural losses for retail investors

- Emotions are hard to beat: people sell in fear and buy in greed
- Markets never sleep: prices move 24 hours a day, even while you sleep
- One collapse wipes everything out: a single large loss erases accumulated gains
- It is not a matter of skill — there is simply no mechanism that enforces the rules

2) Trust problems with existing auto-trading services

- Custody risk: assets and API keys must be handed to a company, exposing users to withdrawal and hacking risk
- Opaque performance: results rely on screenshots and self-reporting and cannot be verified

- Misaligned value: monthly subscription models charge users regardless of their profit or loss

3) Reward points and walking data are cut off from value

- App points can only be used inside the issuer and do not carry external value
- The value of walking and gait data generated every day does not return to users
- Smartphone-based step counts are easy to fake and lack hardware-level verification

1.3 EPOL's Solution

EPOL addresses these problems in four core ways:

1. **Real Cash Flow Integration** : SNP-BOT performance fees and Walkdoni ecosystem revenue are wired into the buyback engine
2. **Dual Token System** : Clear separation of roles between a utility token (EPOL) and a value token (WBEDR)
3. **Non-Custodial & Proof-of-Performance** : Assets stay in the user's own account; performance is recorded on-chain
4. **Anti-Whale Mechanisms** : Dynamic tax rates and multi-hop checks prevent market manipulation

2. Solution: A Real-Yield DeFi Platform

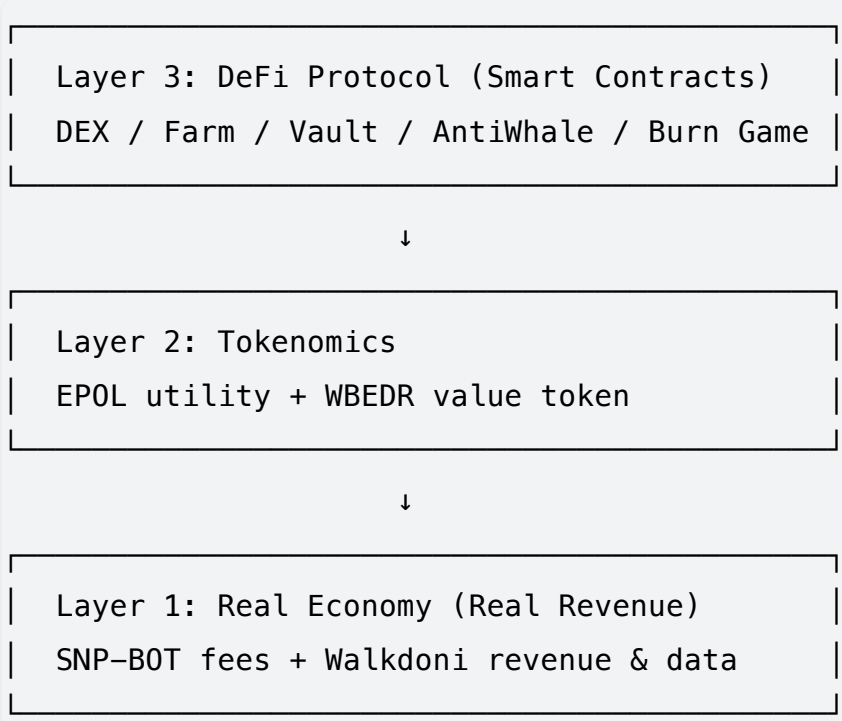
2.1 What Is the Real-Yield Model?

Real Yield means returns that come from actual revenue outside the protocol, not from new token issuance (inflation). EPOL connects two real cash flows — **AI trading performance fees** and **healthcare and commerce revenue** — to buybacks and dividends executed by smart contracts.

Core value proposition:

- Transparency: every trade, performance record and revenue distribution is recorded on the blockchain
- Automation: smart contracts execute buybacks and revenue distribution automatically
- Accessibility: users worldwide join the ecosystem through everyday activities — walking and trading
- Efficiency: removing intermediaries reduces costs

2.2 EPOL's Three-Layer Architecture



Each layer delivers value to the layer above it, and cash flow from real-world services becomes the revenue source of the DeFi protocol.

3. Business Architecture: The Alliance Structure

3.1 Overview

The EPOL ecosystem is run as a **two-way settlement alliance** of independent entities, each with its own strengths, connected by business agreements (BA). The design isolates regulatory and securities risk by entity and secures accounting transparency.

```
[ EDIENPOL Alliance ]

Michelle Won Group · EDIAN Foundation (EPOL issuer & operator)
├─ Role: operates the EPOL DEX, wallet and token economy
├─ Provides: DEX · vaults · fee-payment infrastructure
└─ Receives: payment demand · new users

        ⇅  Business agreement (BA) · two-way settlement

SNP-BOT Foundation (revenue source)
├─ Role: operates the AI quant trading platform
├─ Provides: performance-fee and fee cash flow
└─ Receives: liquidity · users · infrastructure

        ⇅  Strategic partnership & service execution agreement

Noitaboni Co., Ltd. · Walkdoni (real-world spending & data)
├─ Role: develops and manufactures smart shoes; runs WDP and the
Walkdoni Mall
├─ Provides: verified walking data · nationwide stores · customers ·
WDP
└─ Receives: blockchain exchange · token economy · trading · exchange
```

3.2 Roles of Each Entity

Michelle Won Group · EDIAN Foundation (EPOL issuer & operator)

- "A company that builds and shares together" — EDIAN Foundation Inc. and Michelle Won Holdings Inc., headquartered in Jecheon, Chungbuk, Korea
- Began in 1986 as Won Myeong-ye Embroidery Fashion and expanded into digital assets based on its manufacturing and distribution experience
- Digital asset business: operates the BEDR global exchange, issues EPOL
- Manufacturing and distribution: beverage manufacturing, cosmetics, food-service division
- Giving: founded Korea Naco Sharing (2012), supports free meal services
- Digital asset portfolio:
  - **EDIENPOL** : a decentralized exchange ecosystem that directly operates SWAP · POOL · FARM · VAULT
  - **BitBEDR** : a digital asset project carrying the values of donation and sharing
  - **WBEDR** : a wrapped token designed to use DeFi features on the EPOL DEX
  - **Michael NFT** : an NFT project linking health, donation and fandom (1st, 2nd and 3rd collections; part of the proceeds donated)

SNP-BOT Foundation (revenue source)

- Develops and operates the AI quant trading bot
- Integrates major exchange APIs, executes trades and records performance
- Transfers a fixed share of performance-fee cash flow to buyback and dividend funding (BA clause ①)

Noitaboni Co., Ltd. · Walkdoni (real-world spending & data)

- A medical footwear specialist with over 20 years of history (developing spring shoes since 2000)
- 22 patents and about 80 utility models (registered in 16 countries including the US, Japan, China and Europe)
- Registered with the US FDA
- Official BTS-licensed product: the 'Permission to Dance' BTS spring shoe, produced under an official license agreement with HYBE
- Operates the Walkdoni app, WDP points, the Walkdoni Mall and Smart Office Cars (mobile stores)

3.3 Advantages of the Alliance Structure

1. **Risk isolation** : Independent foundations and companies separate regulatory and securities risk by entity
2. **Transparency** : Quarterly on-chain settlement reports; buyback and dividend history recorded on-chain

3. **Virtuous cycle** : SNP-BOT supplies revenue, EPOL supplies infrastructure, Walkdoni supplies users and real-world spending
4. **Growth flexibility** : Each entity can scale independently
5. **Contractually fixed** : Everything from revenue attribution and settlement currency to buyback execution and exit procedures is written into the business agreement

3.4 Key Clauses of the Business Agreement (SNP-BOT × EPOL)

No.	Clause	Content
①	Revenue attribution	A fixed X% of SNP revenue is transferred to buyback and dividend funding
②	Receiving and settlement currency	USDT preferred / EPOL accepted
③	Buyback execution	Weekly TWAP, joint treasury
④	Liquidity provision	Market-making support for the WBEDR/EPOL pool
⑤	Infrastructure access	Vaults · anti-whale · boost
⑥	Governance boundary	Foundations stay independent; only joint matters go to a joint council
⑦	Joint marketing	IR · listings · partnerships
⑧	Settlement · audit	Quarterly on-chain settlement reports published
⑨	Exit · termination	Procedure to separate assets and liquidity on termination
⑩	Governing law · disputes	Jurisdiction · arbitration

The X% in ① and the governing law in ⑩ will be set once both foundations' legal domiciles and corporate forms are finalized.

4. Core Partner Services

4.1 SNP-BOT: AI Quant Trading

SNP-BOT is an AI trading bot whose quant algorithm trades on the user's behalf. **Assets stay in the user's own exchange account; the bot only places orders.**

Item	Detail
Asset custody	User's own account
Bot fee	Completely free (no monthly or annual fee)
Settlement	Net profit split 50:50
Instruments	5 major assets (top market-cap coins such as BTC · ETH · SOL)

How trades are executed:

```
1. Market watch    → checks prices 24 hours a day
2. Signal analysis → judges the trend with 9 indicators
3. Risk filter     → holds off entry if conditions are not met
4. Order execution → executes in the user's own exchange account
```

The bot enters only when the trend is statistically favorable and blocks unnecessary over-trading, trading 1–3 times a day. Take-profit and stop-loss levels are set before entry; verified rules, not emotions, decide each trade.

Trading algorithm (9 indicators):

Indicator	Parameters	Role
Bollinger Bands	length 20 · mult 2.0	Middle band used as the stop-loss reference
Stochastic	%K 8 · %D 3	%K crossing above %D is a bullish signal
MACD	9 · 21 · 6	Confirms trend via histogram and signal-line crossovers
DMI · RSI, etc.	Auxiliary filters	Identify wave energy and overheated zones

Entry and exit rules:

Item	Rule
Entry (long)	① %K crosses above %D ② MACD histogram > 0 ③ MACD line crosses above the signal line
Short entry	The reverse of the above
Additional entries	Up to 3 times in the same direction
TP1	Entry +1.2% → close 20% of the position
TP2	Entry +2.5% → close 30% of the position
Trailing	Trailing exit on a pullback from the high
Stop-loss	Close the entire position when price breaks the Bollinger middle band

Leverage notice: this strategy uses positions of up to about 10× account equity. As profit opportunities grow, so does the size of potential losses.

Stable series (A–E):

Version	Expected return (target)	Profile
Stable A	30–60% per month	Baseline version
Stable B	A + 50%	Additional expectation over A
Stable C	A + 100%	Additional expectation over A
Stable D	A + 150%	Additional expectation over A
Stable E	A + 200%	Most aggressive

Higher versions raise both expected return and risk of loss in the same proportion. The figures above are targets and are not guaranteed.

Three safeguards:

1. **No withdrawal permission** : Exchange API keys grant order permission only, never withdrawal permission
2. **Whitelisted servers only** : Access from anything other than registered servers is blocked
3. **Stop-loss always on** : If the market moves against the analysis, the stop-loss triggers

The company neither holds custody of participants' assets nor can it withdraw them. Participants can review every trade themselves and disconnect at any time.

Operating environment:

- Supported exchanges: connect the API of your chosen exchange among Binance · Bitget · Bybit · XT · Huobi · OKX
- Instruments: limited to 5 top market-cap majors such as BTC · ETH · SOL (no indiscriminate altcoin trading)
- Limiting exchanges and instruments to majors reduces liquidity risk

Live trading records:

Period	Breakdown	Return
H2 2024 · 6 months	Round 1, 90 days: 317.79% / Round 2, 89 days: 549.42%	908.79%
Oct 2025 · Binance	ETH auto-trading (Oct 2 – end of Oct)	34.21%
Aug 2025 · Stable A	Cumulative over 27 days (live after upgrade)	36.65%

These figures are live trading records for specific periods and do not guarantee the same results in the future. Principal loss may occur depending on market conditions, and returns from specific past periods are never annualized or compounded.

Fees and settlement:

- Bot fee: completely free
- Profit settlement: only the net profit the bot generates is split 50:50 between the user and SNP-BOT
- Settlement deposit: USDT is pre-deposited for settlement; the bot stops automatically if the balance runs short
- Loss periods: realized profits are also counted as principal, and no settlement fee or other cost applies until principal is recovered

Four steps to join: Install the app → open an exchange account and register an API key → deposit assets into your own account → choose a version and instrument and start

EPOL integration design (Trust Architecture):

- **Non-custodial vault** : The vault contract only grants trade approval to the router; principal can be withdrawn only with the user's own signature. Transfers of principal by the operator are blocked at the contract level
- **Proof-of-Performance** : At every settlement cycle an oracle signs realized PnL, NAV and fees, and a Merkle root is anchored on-chain so anyone can re-verify. A verification game (WBEDR deposits · challenges) keeps the data trustworthy
- **Performance fee → buyback engine** : A fixed share of SNP-BOT performance fees is received in USDT (EPOL accepted) and used to fund the Real-Yield Buyback Engine

- CEX integration strategies are protected with MPC, sub-accounts and whitelist locks

4.2 Walkdoni: Smart Shoes That Turn Steps into Assets

Walkdoni is a Move-to-Earn platform that combines IoT and blockchain with the spring-shoe technology Noitaboni Co., Ltd. has built over 25 years. The smart shoe verifies real steps and turns them into data, and those steps lead to WDP points and EPOL.

Core patents:

- Patent No. 10-2240391: System for accruing and using coins through customized shoes
- Patent No. 10-2264796: Technology that provides users with health-based correction information using pedestrian gait data

EdgeAI IoT smart shoes — every shoe becomes a miner:

- **Any Shoe, Any Time** : Nike, Adidas or dress shoes — attach the Walkdoni IoT module and the shoe becomes a miner
- **Proof of Walking** : Just walk, and Walkdoni verifies that the steps are real (hardware-verified gait data, PoM)
- **Portable Asset** : Change shoes and your assets follow you

5th-generation 6-axis AI-IoT chip:

Feature	Detail
Ultra-small · ultra-low power	Fits inside the shoe and lasts a long time
6-axis sensor	Reads movement precisely in six directions
On-device AI	Decides on the chip itself and filters out real steps
Easy NFC pairing	Just hold your phone near the shoe; after pairing once it is recognized automatically
Water-resistant · no charging	Wear it on rainy days; it turns on when worn and stops when taken off
Records without a phone	The shoe records even without a phone and syncs automatically when they meet again

Walkdoni global app (M2E):

- Walk 5,000 or 10,000 steps a day and tokens are mined
- Supports Korean, English, Chinese, Japanese, Russian and German
- Attendance roulette, a dedicated Walkdoni wallet, free 5,000-step rewards twice a day, Doni Friends growth, NFT shoe collecting, workout history

WDP points and the Walkdoni Mall:

- **1 WDP = KRW 500** (adjusted according to market conditions)
- Earn by walking, spend right away at the Walkdoni Mall
- Walkdoni Mall payment: combined payment of **50% WDP + 50% cash**
- Payment example: one box of Jeonggwanjang Red Ginseng Daily Sticks — price KRW 70,000 − discount KRW 10,000 − WDP 25,000 = KRW 35,000 paid
- Expanding the catalog: food products from listed company Wooyang Chef Story, well-known brands, more categories such as food, stronger WDP combined payment

Mobile stores that come to you (Smart Office Car):

- Mobile stores that travel nationwide to meet customers in person
- One car per 50,000 residents, up to 1,004 cars nationwide (e.g., Daegu, population 2.37 million → up to 47 cars)
- Distributed regional placement prevents over-competition
- Business automation: online digital marketing → free consultation requests → customer information passed to the Smart Office Car owner → on-site tailored consultation

New revenue from walking data (healthcare DePIN):

Customer	Use
Insurers · hospitals	Develop health services with walking data
Local governments	Use for senior care and pedestrian-environment policy
EPOL ecosystem	Data revenue grows the EPOL ecosystem

- Revenue model: monthly subscriptions + data marketplace (insurance · healthcare · local government B2B/B2G)
- Acquisition channels: global fandom IP (HYBE license) + a nationwide mobile dealer network
- Technology assets: 25 years of manufacturing capability · 22 global patents · EdgeAI IoT module

4.3 EPOL × Walkdoni Integration: An Ecosystem Where Walking Becomes an Asset

Both strengths meet at one point: **walking becomes value you can use across the ecosystem.**

Walkdoni's strengths	EPOL's strengths
Verified walking data	Blockchain exchange (DEX)

Walkdoni's strengths	EPOL's strengths
Nationwide stores · customers	Token economy
WDP points	Trading · exchange

Ecosystem flow:

```
Walk (the smart shoe verifies each step)
    ↓
Earn WDP (1 WDP = KRW 500, adjusted to market conditions)
    ├──→ Shop at the Walkdoni Mall (50% WDP + 50% cash)
    │
    └──⇄ Exchange for EPOL (WDP ⇄ EPOL in the Walkdoni app)
              ↓
         Trade on the EPOL DEX and exchanges
```

WDP is a point and EPOL is a token. The two can be exchanged for each other in the Walkdoni app.

Users of both companies meet and grow together:

User	Flow	Result
Walkdoni users	Walk → earn WDP → exchange for EPOL and use it across the ecosystem	Walking becomes an asset
EPOL users	Buy EPOL → exchange for WDP → spend at the Walkdoni Mall	A real place to spend it

The WDP ⇄ EPOL exchange links the two user bases, so the users grow together and both companies grow together.

EPOL integration structure:

Step	Detail
01	Walkdoni Dapp listing — integrated into the EPOL ecosystem front end
02	Point settlement · marketplace payments — USDT · EPOL based
03	EPOL DEX — swaps · liquidity · on-chain settlement records
04	Joins the WBEDR engine — contributes to buyback funding as the third revenue stream

Trading's PoP (Proof-of-Performance) and walking's PoM (Proof-of-Movement) are verified real-world data economies that share the same EPOL settlement layer.

Three-stage expansion plan:

1. **EPOL airdrop** : activate user wallets and acquire new wallets
2. **WDP ⇄ EPOL exchange enabled** : make points and tokens mutually exchangeable
3. **Pursue a Binance listing** : expand to global exchanges after reaching 100,000 users (target: 100,000 users)

4.4 WWP Wallet: The Dedicated EPOL Wallet

WWP Wallet is a dedicated EPOL wallet designed around simplicity and purpose.

- **Easy asset management** : store and check EPOL tokens on a single screen
- **Simple transfers** : send and receive with just a wallet address
- **Dual security** : account protected with Google OTP and a 6-digit PIN; withdrawals require email and OTP verification
- **Install** : search "WWP" on the Google Play Store

5. Tokenomics: The Dual Token System

5.1 EPOL Token (Utility Token)

Basic information:

- Token name: EPOL (EDIENPOL)
- Network: Polygon Mainnet
- Contract: `0xbB9b67A2b5E5858B476Db55358e4824DBe61f6DA`
- Total supply: 50,000,000,000 (50 billion)
- Decimals: 18
- Standard: ERC-20

Initial token allocation:

Category	Amount	Share	Purpose
R&D & operations	20,000,000,000	40%	Technology development, protocol operations
Reward pool	15,000,000,000	30%	Farming, staking and membership rewards
Global marketing	10,000,000,000	20%	Brand, partnerships, user acquisition
Market making	5,000,000,000	10%	DEX liquidity provision (two-sided buy and sell quotes)

EPOL utility:

1. **Governance** : EPOL holders vote on protocol upgrades
2. **DEX fee revenue** : the protocol share (0.05%) of the trading fee (0.3%) funds the buyback engine
3. **Walkdoni ecosystem exchange and payment** : WDP ⇄ EPOL exchange in the Walkdoni app, spending at the Walkdoni Mall
4. **SNP-BOT settlement** : currency for receiving and settling performance fees (USDT preferred, EPOL accepted)
5. **Staking rewards** : EPOL rewards for staking LP tokens in farming pools
6. **Games** : EPOL-burning content such as Heroes of EPOL and Last Man Standing

5.2 WBEDR Token (Value Token)

Concept: If EPOL is the ecosystem's fuel, WBEDR is the token to which value accrues. WBEDR is an already-issued token, not a new issuance, and has been redesigned around utility expansion and value accrual.

Basic information:

- Token name: WBEDR (Wrapped BEDR)
- Network · standard: Polygon · ERC-20
- Contract: `0x6C15dfB5c033283bdE9df131Cec9EfF0D5E610aa`
- Total supply: 1,000,000,000 (1 billion) — fully issued, no further minting
- Current pair: WBEDR / EPOL (`0x147a6f055Ba876cbdC4246D2DAfEeA9372a3cAF8`) — trading on the EPOL DEX
- Initial reference: 1 WBEDR = 1,000 EPOL (bootstrap reference ratio)

Item	EPOL — utility	WBEDR — governance · value accrual
Primary nature	Ecosystem fuel · medium of exchange	Governance + dividends + valuation
Main uses	Swaps · pairs · fee payments · liquidity	Receiving dividends · voting · tier access
Value driver	DEX fees · ecosystem payments · exchange demand	SNP-BOT performance fees · Walkdoni revenue → buyback · dividends · burn
Supply	Existing EPOL policy	Fixed at 1,000,000,000 — no further minting
Chain · standard	Polygon	Polygon · ERC-20

WBEDR utility and rights:

1. **Tier access** : staking size determines engine access and dividend weighting
2. **Verification-game collateral** : used as collateral when challenging performance data
3. **Fee discounts** : discounts on ecosystem service fees
4. **Dividends · veWBEDR · buyback benefits** : receive the dividend share of buyback-engine allocations, weighted for locked veWBEDR
5. **Disclosure principle** : arithmetic FDV may not be used externally before an effective market forms

Staking tier structure (inherits the BEDR membership system):

Tier	Requirement	Benefits (proposed)
Basic	Minimum stake	Basic engine access
Silver	Medium	Expanded engine access + 1.1× dividend weight
Gold	High	All engines + 1.3× dividend weight + priority for new engines
Platinum	Highest	All benefits + governance weight + premium data
Long-term boost	6- or 12-month deposit	Up to 2× rewards — aligned with existing EPOL policy

Exact figures will be set once circulating supply and the target staking ratio are finalized; veWBEDR lock-based dividend weighting is subject to prior legal review.

Price anchor design — from a fixed ratio to a revenue anchor:

Stage	Type	Conditions · content	Band
P0 (current)	Hard anchor	Fixed 1:1,000 ratio, LP seeding · holder growth	0%
P1	Soft anchor	Liquidity · volume target 1 met, revenue buyback begins	±2%
P2	Managed float	Target 2 + buyback running normally	±5% → ±10%
P3	Free float	Target 3 + multiple market makers, DAO approval required	—

The bootstrap fix is released step by step only after the SNP real-revenue buyback (revenue anchor) is running, and every transition is gate-based rather than date-based.

- Safeguards: raised only after gates are met for N consecutive days, automatic rollback if missed, 48-hour advance notice, anti-whale, liquidity lock, circuit breaker

5.3 The Token Economy's Virtuous Cycle

```
[Revenue stream 1] DEX trading fees
[Revenue stream 2] SNP-BOT performance fees  (TVL × net return × fee rate)
[Revenue stream 3] Walkdoni revenue          (subscriptions · data · commerce)
        ↓
Real-Yield Buyback Engine
  Weekly TWAP buyback — market purchases funded by USDT · EPOL receipts
        ↓
  ├─ A. Holder dividends  60%
  ├─ B. Permanent burn    30%  (lower circulation · scarcity)
  └─ C. DAO treasury      10%  (development · liquidity)
        ↓
Higher staking returns · higher farming APY
        ↓
More Walkdoni users · more SNP-BOT users
More WDP ⇄ EPOL exchange and payment demand
More liquidity · more trading volume
```

The allocation ratio (60/30/10) is a proposed initial value to be finalized in contract and legal review. Fees are not received directly in WBEDR to avoid volatility spikes while liquidity is thin.

6. DeFi Protocol Architecture

The contract addresses and parameters in this chapter are on-chain values read from Polygon mainnet as of October 3, 2026. The full address list is in 7.1.

6.1 DEX (Decentralized Exchange)

Overview: The EPOL DEX is a decentralized exchange based on the automated market maker (AMM) model, forked from Uniswap V2.

Core features:

1. **Automated liquidity (AMM)**
   - Formula: x × y = k (constant product)
   - Liquidity providers deposit two tokens in equal value
   - Traders swap tokens against the deposited pools
2. **Main trading pairs**
   - EPOL / USDT — main liquidity pool (Farm PID 0)
   - wBEDR / EPOL — value-token pool (Farm PID 4)
   - BEDR / WPOL, BEDR / USDT — BEDR trading pools
   - Additional pairs can be created through community proposals
3. **Trading fees**
   - 0.30% swap fee (Uniswap V2 standard)
   - 0.25%: accrues to liquidity providers (LPs)
   - 0.05%: protocol fee (Factory `feeTo` enabled, accrues to the treasury)
4. **Pricing**
   - Real-time price queries via Polygon RPC
   - Slippage calculation and user protection
   - User confirmation required for high price impact

Smart contracts:

- Factory: `0x275503aC956295042b0E57f73Bb8a8200a7f0524`

- Router: `0x0F6093ab38b8DABF5c24Bb78Aa8D78B4E5A6C0de`

6.2 MasterChef-Style Farming (Yield Farming)

Overview: EpolFarm (MasterChef-style) lets users stake Uniswap V2 LP tokens to earn EPOL rewards.

Active pools (PID):

PID	Pair	LP address	Allocation
0	EPOL / USDT	`0x6a9fc77D7a0a45df5B7B3eea13585D73af4d02ec`	50
4	wBEDR / EPOL	`0x147a6f055Ba876cbdC4246D2DAfEeA9372a3cAF8`	50

PIDs 1–3 are pre-relaunch pools with an allocation of 0 and pay no rewards. The total allocation is 100.

Reward distribution:

- 0.011574 EPOL per block (about 2 seconds), roughly $500 per day at EPOL = $1
- Distributed according to each pool's allocation points (currently 50:50)
- Emission is adjusted by a keeper along a price-linked curve
- Users can harvest rewards at any time

Smart contract:

- EpolFarm: `0x7B3169684aB8c0f65AA3db45cfd5891A7b4f57BE`

6.3 ERC-4626 Auto-Compounding Vaults

Concept: The auto-compounding vaults implement the ERC-4626 standard. Once a user deposits, the vault repeats the following automatically:

```
1. Harvest farming rewards (keeper bot)
2. Swap rewards → pair tokens
3. Deduct swap fees
4. Re-add liquidity to the pool
5. Re-stake the resulting LP tokens
```

Live vaults:

Pool	Vault (ERC-4626)	Strategy	6-month locked vault
EPOL / USDT	`0x560e339BbbEdA0E0Cbc9D7F15a4290626373dEe6`	`0x1ae6434Bb799010F1cbD9ec3ad4fa90a891638e8`	`0x25Bc50BA47462C9C877D7523EE8365C72dd870eb`
wBEDR / EPOL	`0x5fA7ec4D3083CfE995E1ac215Fa2D971E25FC6b0`	`0x6e4d0ac3ab4b8eB131A7775C7b089f664ed8E1b9`	`0x02f878b92809556896322E8Aa857b0E83652EA55`

Features:

1. **Auto-compounding**
   - A keeper bot runs it periodically
   - No user action required
2. **Risk management**
   - Slippage limit
   - Minimum harvest threshold
   - Panic function to recover funds in an emergency
3. **Locked vaults**
   - Long-term boost rewards for 6-month locked deposits
   - LockBonusVault: `0x077D38e6BcCb8AdF0dDF76E0b673A0671F8B3f9a`

ERC-4626 standard:

- `deposit(uint256 assets, address receiver)`: deposit assets
- `mint(uint256 shares, address receiver)`: mint shares
- `withdraw(uint256 assets, address receiver, address owner)`: withdraw assets
- `redeem(uint256 shares, address receiver, address owner)`: redeem shares
- `totalAssets()`: total assets in the vault
- `convertToShares()`: asset → share conversion rate

6.4 Anti-Whale Router V2

Purpose: A dynamic tax mechanism that prevents price manipulation through large trades and the liquidation of retail investors.

How it works:

1. **Measuring trade size**
   - Trade size is calculated as a share (BPS) of pool liquidity
   - Multi-hop routes check every hop and use the maximum
2. **Tiered tax rates (on-chain settings)**

Trade size (vs. pool liquidity)	Tax
Up to 1%	0.5%
Over 1% to 3%	1.5%
Over 3% to 5%	3.0%
Over 5% to 10%	5.0%
Over 10%	Trade blocked

3. **Defense Mode**
   - When large sells of the protected token occur consecutively, the sell limit is tightened step by step (1% → 0.2% → 0.05%)
   - It is released automatically when normal trading resumes
4. **Governance protection**
   - Changes to the maximum trade size, tax tiers and recipient wallet take effect only after a timelock
   - Tier taxes cannot exceed the contract cap (10%)

Smart contract:

- AntiWhaleRouter V2: `0xD6213Cdc971Aa17A4B9A9519dF789d528FEb2B17`

6.5 Burn Game (Last Man Standing)

Concept: Last Man Standing is an on-chain game played with EPOL. Part of every entry is permanently burned, reducing EPOL supply.

Game rules:

1. **How to play**
   - Each EPOL entry restarts the round timer (default 1 hour)
   - If no one else enters before the timer runs out, the last participant receives the prize pool

- Minimum entry: 1 EPOL (rises step by step as the round progresses)

2. **Entry allocation (on-chain settings)**

Item	Share
Permanent burn	25%
Treasury	25%
Prize pool	50%

3. **Settlement**
    - Anyone can trigger settlement after the round ends, and the prize is paid to the last participant
    - Every round record and burn can be verified on-chain

Smart contract:

- EpolBurnGame V3: `0x6865c2A53E404E843aa681A2ba0255BBe36B2Ee0`

6.6 Heroes of EPOL (On-Chain Boss Raid)

Concept: Heroes of EPOL is an on-chain raid game in which players attack a boss with EPOL and share the rewards. Boss health and rewards are calculated from the EPOL/USDT TWAP price, reducing the impact of short-term price manipulation.

Smart contracts:

- HeroesBossRaid V2: `0xABf3523C8e49067e257696Fb538dB29e64C4b263`
- HeroesTreasureChest V2: `0x4818405c8C0eb28421C6Ac72c3dA2B603A0c3395`
- HeroesTwapOracle: `0x7e7FF032a28784cC63E3792714f5B1f5809aacbd`

6.7 Quest and Point System

Concept: Completing quests earns EPOL Points, which can be used to buy farming boosts. Referral relationships are recorded in an on-chain registry.

Smart contracts:

- EpolPoint: `0x23c4e8d4849fd6150baa90d2e3fa26de0b777550`
- QuestRegistry: `0x4f3f892d016dd887de78545d030a4d8b5ffe44e6`
- QuestVault: `0x4afff5df6be5f6f1f7ffd3ceb5fb47226bcf8ac9`

- ReferralRegistry: `0x9426b97bfa783ba18c25a1701aa3ee3537135fec`
- BoostShop: `0x8462ac65aa31e9f8b975afec4008bdafb7355443`
- EpolFarmBoosted: `0xe1a52f832a04671402d81fc8f1b9cbb1816d166b`

7. Smart Contract Infrastructure

7.1 Deployed Contract Addresses

As of the mainnet relaunch on June 29, 2026. Every address can be verified on PolygonScan.

Tokens:

Token	Address	Total supply	Standard
EPOL	`0xbB9b67A2b5E5858B476Db55358e4824DBe61f6DA`	50,000,000,000	ERC-20 (18 dec)
wBEDR	`0x6C15dfB5c033283bdE9df131Cec9EfF0D5E610aa`	1,000,000,000	ERC-20 (18 dec)
BEDR	`0xB88C5190E16b9c56d386197c88318DcA9b8f38d8`	1,000,000,000	ERC-20 (18 dec)

DEX and farming infrastructure:

Contract	Address	Notes
Factory	`0x275503aC956295042b0E57f73Bb8a8200a7f0524`	Uniswap V2 fork
Router	`0x0F6093ab38b8DABF5c24Bb78Aa8D78B4E5A6C0de`	Uniswap V2 fork
EpolFarm	`0x7B3169684aB8c0f65AA3db45cfd5891A7b4f57BE`	MasterChef-style, active PIDs 0 · 4
AntiWhaleRouter V2	`0xD6213Cdc971Aa17A4B9A9519dF789d528FEb2B17`	Dynamic tax · defense mode
LockedFarm	`0xAC4835a4786B5dcbf8a3476fE6E0889507bFD8ff`	6-month locked staking
LockBonusVault	`0x077D38e6BcCb8AdF0dDF76E0b673A0671F8B3f9a`	Lock bonus

Vaults (ERC-4626):

Contract	Address
EPOL/USDT Vault	`0x560e339BbbEdA0E0Cbc9D7F15a4290626373dEe6`
EPOL/USDT Strategy	`0x1ae6434Bb799010F1cbD9ec3ad4fa90a891638e8`
EPOL/USDT Locked Vault	`0x25Bc50BA47462C9C877D7523EE8365C72dd870eb`

Contract	Address
wBEDR/EPOL Vault	`0x5fA7ec4D3083CfE995E1ac215Fa2D971E25FC6b0`
wBEDR/EPOL Strategy	`0x6e4d0ac3ab4b8eB131A7775C7b089f664ed8E1b9`
wBEDR/EPOL Locked Vault	`0x02f878b92809556896322E8Aa857b0E83652EA55`

Games and quests:

Contract	Address
EpolBurnGame V3 (Last Man Standing)	`0x6865c2A53E404E843aa681A2ba0255BBe36B2Ee0`
HeroesBossRaid V2	`0xABf3523C8e49067e257696Fb538dB29e64C4b263`
HeroesTreasureChest V2	`0x4818405c8C0eb28421C6Ac72c3dA2B603A0c3395`
HeroesTwapOracle	`0x7e7FF032a28784cC63E3792714f5B1f5809aacbd`
EpolPoint	`0x23c4e8d4849fd6150baa90d2e3fa26de0b777550`
QuestRegistry	`0x4f3f892d016dd887de78545d030a4d8b5ffe44e6`
QuestVault	`0x4afff5df6be5f6f1f7ffd3ceb5fb47226bcf8ac9`
ReferralRegistry	`0x9426b97bfa783ba18c25a1701aa3ee3537135fec`
BoostShop	`0x8462ac65aa31e9f8b975afec4008bdafb7355443`
EpolFarmBoosted	`0xe1a52f832a04671402d81fc8f1b9cbb1816d166b`

Liquidity pools (pair addresses):

Pool	Address	Token0	Token1
EPOL/USDT	`0x6a9fc77D7a0a45df5B7B3eea13585D73af4d02ec`	EPOL (18 dec)	USDT (6 dec)
wBEDR/EPOL	`0x147a6f055Ba876cbdC4246D2DAfEeA9372a3cAF8`	wBEDR (18 dec)	EPOL (18 dec)
BEDR/WPOL	`0xeE0d7115eC5c578b7abaD4874b9DaAea5e225d52`	WPOL (18 dec)	BEDR (18 dec)
BEDR/USDT	`0x236B74c1aD870d56d32f74DAd65749c846853816`	BEDR (18 dec)	USDT (6 dec)

External tokens (reference):

- USDT (Polygon): `0xc2132D05D31c914a87C6611C10748AEb04B58e8F`
- WPOL: `0x0d500B1d8E8eF31E21C99d1Db9A6444d3ADf1270`

7.2 Security Audit

Audit summary:

- **Audit date** : March 16, 2026
- **Scope** : EpolVault.sol, EpolStrategy.sol, EpolLockedVault.sol, AntiWhaleRouter.sol
- **Method** : automated tools + manual code review
- **Result** : 2 CRITICAL (all resolved), 7 HIGH (5 resolved, 2 acknowledged)

Findings summary:

Severity	Found	Resolved	Open
CRITICAL	2	2	0
HIGH	7	5	2 (acknowledged)
MEDIUM	6	3	3 (acknowledged)
LOW	6	1	5 (informational)
INFO	4	1	3 (informational)

Key fixes:

1. **CRITICAL-1: ERC-4626 inflation attack**
   - Issue: attack vector against the first depositor
   - Fix: virtual share offset (1e6) added via `_decimalsOffset()`
   - Effect: raises the attack cost by 1e6×, making it economically infeasible
2. **CRITICAL-2: setStrategy() reentrancy**
   - Issue: state not updated before the external call (CEI pattern violation)
   - Fix: added the `nonReentrant` modifier and reordered state updates
   - Effect: reentrancy attacks fully blocked
3. **HIGH-3: AntiWhale multi-hop bypass**
   - Issue: only the first and last token pairs were checked (bypass via intermediate hops)
   - Fix: implemented `_computeTaxMultiHop`, which checks liquidity on every hop
   - Effect: multi-hop bypass attacks blocked

Audit report:

- Public link: https://edien-pol.com/audit
- All contracts are verified on PolygonScan

7.3 Testing and Verification

Foundry-based tests:

- 72 test cases in total
- Passed: 72 (100%)
- Failed: 0

Test coverage:

- DEX functions (swaps, adding/removing liquidity)
- MasterChef farming (reward calculation)
- ERC-4626 vaults (deposit, withdrawal, compounding)
- AntiWhale router (dynamic tax calculation)
- Burn Game (game logic)

8. Revenue Model and Distribution

8.1 Revenue Sources

EPOL generates sustainable Real Yield through three revenue streams:

1) DEX trading fees (Fee-Based Income)

```
User trade
    ↓
Swap fee: 0.30%
    ├─ 0.25%: accrues to liquidity providers (LPs)
    └─ 0.05%: protocol fee (treasury → buyback engine funding)

Formula example (assumption): monthly volume of 10M USDT
→ Total fees: 30,000 USDT
→ Protocol revenue: 5,000 USDT/month
```

2) SNP-BOT trading performance fees (Performance Fee Income)

```
SNP-BOT trades in the user's own account
    ↓
Only when net profit is made: user : SNP-BOT = 50 : 50
(no bot fee · no settlement before principal is recovered)
    ↓
A fixed X% of SNP-BOT revenue is transferred to the buyback engine
(USDT preferred · EPOL accepted)
    ↓
Weekly TWAP buyback → dividends · burn · treasury


SNP contribution R = TVL × net return × fee rate × allocation share
```

3) Walkdoni ecosystem revenue (Healthcare DePIN & Commerce Income)

```
Verified walking data · WDP economy · Walkdoni Mall
    ↓
Monthly subscriptions + data marketplace (insurance · healthcare · local government
B2B/B2G)
Point settlement · marketplace payments (USDT · EPOL based)
    ↓
Joins the WBEDR engine — contributes to buyback funding as the third revenue stream
```

8.2 Revenue Distribution

DEX trading fee distribution:

Recipient	Share	Purpose
LPs (liquidity providers)	83.3% (0.25%)	Liquidity provision reward
Protocol (treasury)	16.7% (0.05%)	Buyback engine funding · operations

Real-Yield Buyback Engine design values (proposed initial values):

Parameter	Design value
User settlement	Net profit 50:50 (user : SNP-BOT), no settlement before principal is recovered
Engine transfer rate	A fixed X% of SNP-BOT revenue (BA clause ①, under negotiation)
Receiving currency	USDT preferred · EPOL accepted
Buyback execution	Weekly TWAP in tranches — prevents slippage and front-running
Post-buyback allocation	Dividends 60 / burn 30 / treasury 10
Dividend recipients · currency	Staked WBEDR (veWBEDR weighted) — USDT or WBEDR
Protection policy	Inherits anti-whale · 48-hour advance notice of policy changes

Buyback engine allocation:

```
SNP-BOT performance fees + Walkdoni revenue + DEX protocol revenue
    ↓
Weekly TWAP buyback (market purchases · executed in tranches)
    ↓
    ├─ Holder dividends 60%  → paid to staked WBEDR holders in USDT or
WBEDR
    ├─ Permanent burn   30%  → lower circulation · scarcity
    └─ DAO treasury     10%  → development · liquidity
```

Accounting order: USDT dividend funding and buyback funding are never double-counted; receipts are split by purpose upfront.

8.3 Valuation Framework — Revenue, Not Price

The EPOL ecosystem is valued on actual revenue, not on token price.

Formulas:

- Total staking value = R ÷ Y
- Implied circulating market cap = R ÷ (Y × s)
- SNP contribution R = TVL × net return × fee rate × allocation share

R: annual dividend funding · Y: required yield · s: staking ratio

Example scenario (illustrative assumptions):

Item	Value
Assets under management (TVL)	$10,000,000
Annual net return (conservative) × 20% performance fee	Revenue $600,000
60% dividend share → funding R	$360,000
Y 20% · s 40% → staking value	$1,800,000
Implied circulating market cap	$4,500,000

The table above is an illustrative assumption to explain the formulas, not a forecast. Annualized compounding of specific past periods and arithmetic FDV are prohibited; values are calculated only from conservative, auditable

realized returns. Walkdoni revenue does not borrow partner financial projections and will be reflected once actual results are confirmed.

9. Governance (DAO)

9.1 Governance Model

EPOL adopts a three-stage governance model aimed at progressive decentralization:

Phase 1 (current): Team-led governance

- The team makes key decisions
- Build a community feedback process
- Begin voting on major changes

Phase 2 (Year 2): Hybrid governance

- Equal voting power for the team and community (50:50)
- Major agenda items decided by EPOL token vote
- Off-chain voting via Snapshot

Phase 3 (Years 3–5): Fully decentralized DAO

- Team role reduced to advisor
- All decisions made by DAO vote
- Voting authority distributed through multi-sig wallets

9.2 Voting Rights

Voting power:

Token	Voting power
1 EPOL	1 vote (based on the Snapshot snapshot)
Staked WBEDR (veWBEDR)	Weighted vote by lock duration and size (Platinum tier governance weight)

Staked WBEDR receives weighted voting power to reflect the voice of participants with real skin in the game through long-term locks. The exact weighting multiplier will be set after legal review.

Voting subjects:

1. **Protocol upgrades**
   - Adding new features
   - Modifying smart contracts
   - Changing network parameters
2. **Financial decisions**
   - Budget allocation
   - Adjusting buyback engine allocation ratios
   - Marketing budget
3. **Governance policy**
   - Changing voting rights
   - Electing the governance council
   - Changing rules

9.3 Governance Council

Composition:

- An appointed initial council (5 members: team + community representatives)
- Annual elections replace 50% of members
- Term: 1 year

Authority:

- Temporary measures in emergencies
- Mediating community disputes
- Overseeing budget execution

Joint partner matters:

- Each alliance foundation operates independently; only joint matters are decided by a joint council (BA clause ⑥)

10. Roadmap

Entry into each stage is conditional on meeting verification, security and legal gates, not on committed dates.

10.1 Phase 1: Foundation (Completed - 2025.Q4)

Goal: Establish the issuing and operating structure

Completed:

- ✅ EPOL issuer and operator confirmed (Michelle Won Group · EDIAN Foundation)
- ✅ Technology roadmap established

10.2 Phase 2: DEX Launch (Completed - 2026.Q1)

Goal: Deploy smart contracts, operate liquidity pools, activate farming, deploy the front end

Completed:

- ✅ Uniswap V2 fork contracts deployed (Factory, Router)
- ✅ EPOL token issued (50 billion)
- ✅ 5 initial liquidity pools created
- ✅ MasterChef farming system deployed
- ✅ Next.js front end developed
- ✅ Web service launched (https://edien-pol.com)
- ✅ i18n multilingual support (EN/KO)
- ✅ Wallet connection (MetaMask, WalletConnect)

10.3 Phase 3: Advanced DeFi Features (Completed - 2026.Q2)

Goal: ERC-4626 vaults, anti-whale router, locked farming, burn game, security audit

Completed:

- ✅ EpolVault.sol (ERC-4626) deployed
- ✅ EpolStrategy.sol (auto-compounding) deployed
- ✅ EpolLockedVault.sol (6-month lock) deployed

- ✅ AntiWhaleRouter.sol (dynamic tax) deployed
- ✅ EpolBurnGame.sol (burn game) deployed
- ✅ Keeper bot automation (Gelato)
- ✅ Internal security audit (automated + manual review)
- ✅ 72 Foundry tests (100% passing)

10.4 Phase 4: Market Expansion · Partner Alliance (In Progress - 2026.Q3–Q4)

Goal: Market expansion, SNP-BOT · Walkdoni alliance agreements and integration MVP

Completed:

- ✅ SNP-BOT domestic launch — crypto futures trading bot in operation, major exchange integrations, 24-hour automated operation
- ✅ Strategic partnership and service execution agreement between Michelle Won Group × Walkdoni Co., Ltd. (signing ceremony at the joint conference on September 15, 2026)

Planned:

- ☐ SNP-BOT × WBEDR P0 confirmation · due diligence (2026.Q3): confirm token nature and receiving currency, holder due diligence · MOU, start legal review
- ☐ SNP-BOT × WBEDR P1 MVP · audit (2026.Q4): vault + proof-of-performance MVP, first audit, buyback contract
- ☐ Walkdoni stage 1: EPOL airdrop (activate user wallets and acquire new wallets)
- ☐ CoinGecko token listing
- ☐ CMC (CoinMarketCap) listing
- ☐ ParaSwap integration
- ☐ 1inch integration
- ☐ The Graph subgraph deployment and indexing
- ☐ Blockaid security coverage
- ☐ External auditor (top-tier selection in progress)
- ☐ Stronger Korean and global marketing

10.5 Phase 5: Integrated Ecosystem Operation (Planned - 2027.H1)

Goal: WDP ⇄ EPOL exchange, buyback engine and dividends live, SNP-BOT global expansion

Planned:

- ☐ Walkdoni stage 2: WDP ⇄ EPOL exchange enabled
- ☐ Walkdoni Dapp listed in the EPOL ecosystem
- ☐ WBEDR staking and dividends live, tiers opened, market making
- ☐ SNP-BOT global expansion — overseas markets, more supported exchanges, multilingual support

10.6 Phase 6: Governance · Global Listings (Planned - 2027.H2–2028)

Goal: DAO transition, global exchange listings, data business expansion

Planned:

- ☐ Verification game · DAO beta, engine expansion, joint marketing (2027.H2)
- ☐ Walkdoni stage 3: pursue a Binance listing after reaching 100,000 users
- ☐ Major CEX listings (pursuing Upbit, Coinbase)
- ☐ SNP-BOT data enhancement — accumulate trading data, continuous algorithm upgrades, broader strategy lineup
- ☐ Walking data B2B/B2G — data business with insurers, hospitals and local governments
- ☐ Global expansion and full DAO transition (2028)

11. Risk Management

11.1 Technical Risks

1) Smart contract vulnerabilities

Risk	Severity	Mitigation
Reentrancy	High	OpenZeppelin nonReentrant, CEI pattern
Overflow/underflow	Medium	Solidity 0.8+ built-in checks (no SafeMath needed)
Flash-loan attacks	Medium	TWAP oracle, spot-price limits
Front-running	Low	Considering an MEV-resistant router

Current status:

- Internal security audit completed (CRITICAL 2/2, HIGH 7/7 resolved or acknowledged)
- 72 Foundry tests passing
- Contracts verified on PolygonScan
- External audit scheduled for 2026.Q4
- New buyback and vault contracts: two or more audits + bug bounty + timelock

2) Oracle manipulation

Risk	Severity	Mitigation
Flash-loan attacks	Medium	Chainlink TWAP oracle planned
Price feed outage	Low	Fallback price data (stored TWAP)
Performance data manipulation	Medium	Multiple oracles + verification-game challenges

11.2 Market Risks

1) Price volatility

Mitigation:

- Anti-whale router limits extreme trades
- Long-term lock incentives (6-month farming bonus)
- WBEDR price-anchor transitions: automatic rollback and circuit breaker if gates are missed

2) Market share competition

Mitigation:

- Emphasize Real Yield backed by real services (SNP-BOT performance fees · Walkdoni revenue)
- Differentiate through verifiable on-chain Proof-of-Performance (vs. screenshots and self-reporting)
- Technology gap from hardware-verified gait data (PoM) and 22 global patents

3) Regulatory risk

Risk	Impact	Mitigation
Securities classification (largest risk)	High	Utility-focused design, dividends structured as protocol fee distribution, per-jurisdiction review, KYC in restricted jurisdictions
Auto-trading licensing	Medium	Non-custodial, user-executed structure reduces friction; per-jurisdiction licensing review
DEX regulation	Medium	Maintain a P2P structure, emphasize decentralization
Privacy · health data	Medium	User consent and compliance with applicable law when using walking data for B2B/B2G
Liquidity · market manipulation	Medium	Market making · liquidity locks · transparent unlock schedule · anti-whale

11.3 Business Risks

1) Partner business performance

Mitigation:

- SNP-BOT: state clearly that futures leverage (up to 10×) can cause principal loss and that past performance does not guarantee future returns
- Use only on-chain-verified figures in marketing; prohibit annualized compounding of specific past periods
- Walkdoni: advance to the next stage (listing) only after stage gates such as 100,000 users are met
- Mobile stores are distributed by regional population to prevent over-competition

2) Key personnel departure

Mitigation:

- 4-year vesting of team tokens (30% locked)
- Incentive structure (performance bonuses)
- Backup team

3) Counterparty risk

Mitigation:

- Multi-sig wallets (2-of-3 signatures required)
- Auditable smart contracts
- Quarterly on-chain settlement reports (BA clause ⑧)
- Documented procedure to separate assets and liquidity on termination (BA clause ⑨)

12. Legal Disclaimer

This whitepaper (the "Document") is an informational document that provides an overview of the EDIENPOL (EPOL) project. The information in this Document is subject to change and has no legal binding force.

12.1 Disclaimer

Not investment advice: This Document has not been approved by the Securities and Exchange Commission (SEC), the Financial Services Commission (FSC) or any other regulator. Its contents are not investment, legal or financial advice and must not be construed as such.

Risk disclosure:

- Crypto-asset investment carries high risk
- You may lose all of the funds you invest
- Losses may occur due to smart contract bugs or attacks
- The project may be discontinued due to regulatory changes
- Losses may occur due to market price fluctuations

SNP-BOT notice:

- Risk of principal loss: futures trading uses leverage and can result in principal loss
- No guaranteed returns: past results and target returns do not guarantee future returns
- Different risk by version: higher versions carry both higher expected returns and higher risk of loss
- Assets stay in your own account: the final investment decision and its consequences are your own responsibility

Technical limitations:

- Technical information in this Document is prospective and may differ from the actual implementation
- The roadmap is fluid and subject to change
- Expected returns (APY, dividends) are not guaranteed
- Proposed initial values such as the buyback engine allocation ratio and performance-fee transfer rate will be finalized in contract and legal review

12.2 Token Classification

The tokens referred to in this whitepaper are classified as follows:

EPOL (utility token):

- Governance, service payments, WDP exchange, fee reductions, DEX staking
- Not classified as a security (in most jurisdictions)

WBEDR (value token):

- 1 billion already issued, no further minting
- Includes dividends, buyback benefits and weighted governance
- May be classified as a security depending on the jurisdiction
- Dividend currency (USDT / WBEDR) and structure to be finalized after securities review

WDP (Walkdoni Points):

- A service point operated by Noitaboni Co., Ltd.; not a blockchain token
- The WDP ⇄ EPOL exchange rate and conditions follow the Walkdoni app policy

12.3 Governing Law

This whitepaper was prepared with the following jurisdictions in mind:

- Korea: Financial Services Commission guidelines
- United States: SEC crypto-asset guidelines
- EU: MiCA (Markets in Crypto-Assets Regulation)

Disputes concerning the interpretation or enforcement of this Document are governed by the laws of the Republic of Korea, with the Seoul Central District Court as the court of first instance. The governing law and dispute resolution for the alliance business agreements will be set separately once each foundation's legal domicile is finalized.

12.4 Contact and Further Information

- Website: https://edien-pol.com
- Audit report: https://edien-pol.com/audit
- Governance: Snapshot (https://snapshot.org)
- Community: Discord / Telegram (see the website for links)

Conclusion

EPOL combines two real cash flows — AI trading and walking — with DeFi to build a true **Real Yield** ecosystem. The Real-Yield Buyback Engine is designed to be funded by real service revenue rather than new capital inflows, and EPOL has completed a full technology stack (DEX, farming, vaults, anti-whale router, games) and security audits.

SNP-BOT supplies revenue through a non-custodial structure and on-chain proof of performance, and Walkdoni supplies real users and spending through patented smart shoes and the WDP economy. EPOL provides the trading, exchange and settlement infrastructure on top. Building on what each partner does best, EPOL will present a new paradigm for the blockchain industry as a next-generation Real-Yield platform where walking becomes an asset and performance is never hidden.

Appendix: Glossary

Term	Definition
AMM	Automated Market Maker — the Uniswap model
API key	An authentication key granting order permission on an exchange account (SNP-BOT uses order permission only, no withdrawal permission)
CEI	Check-Effects-Interactions pattern (prevents reentrancy)
DAO	Decentralized Autonomous Organization
DePIN	Decentralized Physical Infrastructure Network
DEX	Decentralized Exchange
ERC-20	Ethereum token standard
ERC-4626	Tokenized yield-bearing vault standard
Flash Loan	An uncollateralized loan repaid within the same transaction
LP Token	Liquidity provider token
M2E	Move-to-Earn, a model that rewards physical activity such as walking
NAV	Net Asset Value
PoM	Proof-of-Movement, hardware-verified gait data
PoP	Proof-of-Performance, an on-chain-verifiable trading performance record
Real Yield	Returns derived from real-economy revenue
Real-Yield Buyback Engine	A weekly TWAP buyback, dividend and burn engine funded by real revenue
Slippage	The difference between the expected and executed price
TWAP	Time-Weighted Average Price
TVL	Total Value Locked (total deposited or managed assets)
veWBEDR	Weighted dividend and voting rights granted to locked WBEDR
WBEDR	Wrapped BEDR, the EPOL ecosystem value token with 1 billion already issued

Term	Definition
WDP	Walkdoni Points — earned by walking, used at the Walkdoni Mall and for EPOL exchange (1 WDP = KRW 500, adjusted to market conditions)

Document Information

Author : EPOL Team

Version : V3.0

Published : October 2026

Last updated : October 29, 2026

Major changes : Bio business content fully removed, SNP-BOT · Walkdoni alliance added, RWA token replaced by the WBEDR value token, all contract addresses updated to the post-relaunch mainnet state, wording on token value, market making, games and governing law revised (October 29)

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This whitepaper has been prepared for review by CoinGecko, investors and regulators.
