Whitepaper

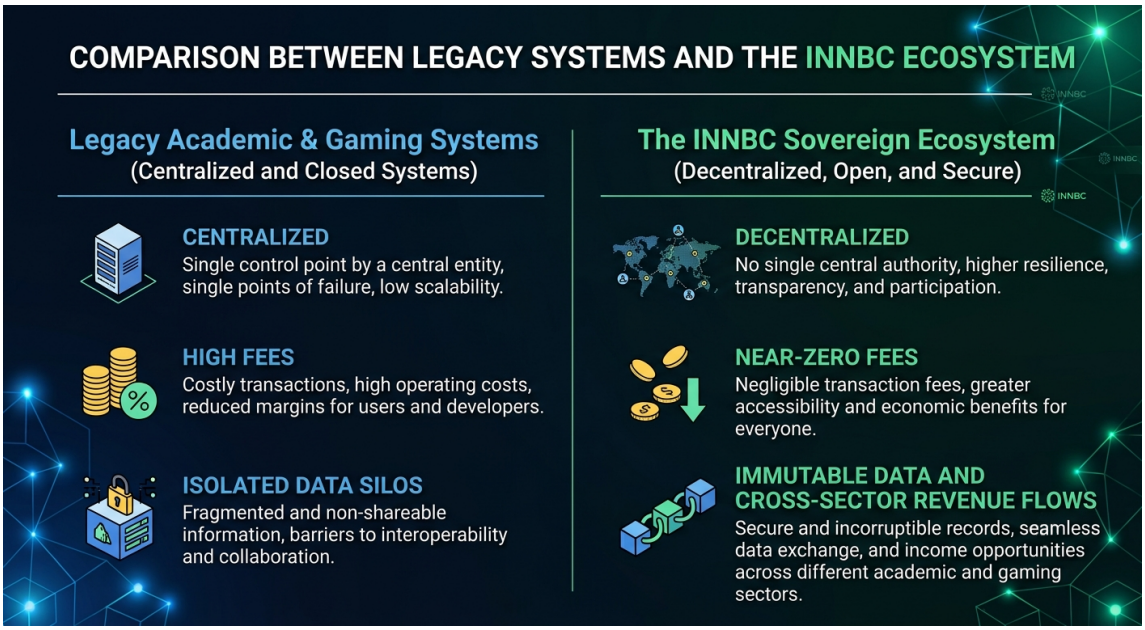
INNBC Chain—A sovereign Layer 1 for DeSci and Gaming



1. The INNBC Genesis (2018-Present) and INNBC Chain Protocol Upgrade

The INNBC ERC20 legacy asset was conceived and issued in 2018 by biomedical research and computer scientist creator Jonathan Fior under Innovative Bioresearch Ltd*. The project pioneered the field of Decentralized Science (DeSci) implementing a model using the generated network fees to directly fund novel biomedical research bypassing legacy gatekeeper such as Universities and pharmaceutical corporations. Unlike theoretical concepts, the INNBC ecosystem successfully translated blockchain architecture into real-world scientific utility, delivering peer-reviewed biomedical research studies published in reputable, PubMed-indexed scientific journals.

To support the expanding requirements of its computational and data-storage infrastructure, the ecosystem has undergone a definitive technological evolution. In 2026, the INNBC legacy asset underwent a structural protocol upgrade, transitioning from a secondary ERC20 token into the native, sovereign gas token of a proprietary Layer-1 blockchain network: the INNBC Chain.



***Note:** This Whitepaper is published by **Innovative Bioresearch Ltd** (20-22 Wenlock Road, London, N1 7GU, UK; company number: 11386871; https://www.innovativebioresearch.com/), acting solely as the software developer and technical contributor for the INNBC protocol. The INNBC L1 Chain is designed as a decentralized infrastructure, owned and operated by its users through a democratic resource model, without a single central issuer (Refer to **MiCA Recital 22**, which excludes crypto-assets that are truly decentralized and have no identifiable issuer from certain prospectus requirements). This document is for informational purposes only and describes the technological evolution of a protocol established in 2018. It does not constitute a public offering of financial instruments or crypto-assets under Regulation (EU) 2023/1114 (MiCAR). The developer neither exercises control over users' funds nor holds access to private keys or custodial authority over the network's assets.

2. The INNBC Chain—A Democratic Layer-1 Infrastructure

2.1 The Paradigm Shift: From Asset to Infrastructure

The evolution of the **INNBC** ecosystem culminates in the transition from a legacy token to a sovereign, high-performance Layer-1 (L1) Blockchain. The INNBC Chain is engineered to serve as the permanent, decentralized foundation for the project's Scientific and Gaming ecosystems. By moving to a proprietary infrastructure, the network eliminates dependency on third-party protocols, ensuring long-term sustainability and ultra-low transaction costs tailored for decentralized data storage and real-time gaming interactions.

2.2 The Democratic Resource Model

INNBC Chain's Democratic Resource Model separates the technical responsibility of operating validators from the opportunity to participate in

the network's fee economy. Validators provide the hardware and operational expertise required to maintain the blockchain, while users can stake native INNBC in the Community Reward Pool without operating a node:

- **The Resource Vote:** Community staking represents an economic commitment to the network. By depositing INNBC, users contribute to its total value locked and become eligible for a proportional share of the pool's fee-funded rewards. This commitment can be understood as a "Resource Vote"—an expression of support for the network, distinct from validator governance or consensus voting.
- **Inclusive Access to Chain Fees:** The Community Reward Pool accepts any positive staking amount, with no validator hardware or admission requirement. Governance can allocate up to 50% of transaction base fees to community rewards, allowing users to participate in the network's fee economy alongside validators. Rewards depend on the configured allocation, fees received and each participant's share of the pool; ordinary transaction gas fees apply.

2.3 Economic Participation and Validator Accountability

INNBC Chain combines peer-gated validator membership with INNBCBFT consensus and community participation in transaction-fee rewards. Validators provide the hardware, connectivity and operational expertise required to maintain the ledger. Community stakers participate economically without assuming validator responsibilities:

- **The Consensus Mechanism and Fee Distribution:** Blocks are proposed and finalized by the active validator committee under INNBCBFT's consensus rules. Eligible registry validators receive equal consensus voting power. Transaction base fees are distributed according to governance-approved settings. Up to 50% can be allocated to the Community Reward Pool, where rewards are shared proportionally among participating stakers. Governance can also allocate a portion to the Fee Burn Vault. The block-producing validator receives the remaining base fees and transaction priority fees. Combined community and burn allocations cannot exceed 100% of base fees. Adjustments

require explicit governance decisions rather than an automatic response to transaction volume or market conditions.

- **The Peer-Gated Validator DAO:** The validator network operates under a decentralized, peer-gated Decentralized Autonomous Organization (DAO) framework independent of central issuers:
  1. **Performance Metrics**: Validator nodes are admitted and maintained based on operational compliance, ensuring low latency and maximum uptime.
  2. **Peer Review:** The admission of any new validator node into the consensus set must be vetted and approved by existing active nodes. Conversely, nodes failing to meet performance standards (e.g., prolonged downtime or sub-optimal propagation) can be voted out of the consensus pool by their peers.
- **The Role of Maintainers:** Technical execution—such as global server optimization, core repository updates, and protocol software development—is performed by designated Maintainers. These entities act as the "technical muscles" of the network but lack administrative control over user assets. Maintainers may choose to actively run validator nodes within the DAO system. In this specific capacity, given their direct expertise in updating and maintaining the core infrastructure, their vote holds a symbolic, advisory value as a specialized indicator of trust regarding a node's technical compliance and performance. This indication is entirely non-binding and carries no unilateral enforcement power; peer nodes retain absolute autonomy to follow or ignore the Maintainers' guidance during consensus voting.
- **Community Participation and Economic Accountability:** Users can stake native INNBC to participate in community fee rewards and can withdraw their stake through the pool’s withdrawal function, subject to successful transaction execution. Participation expresses economic support for the network and withdrawal allows users to end that commitment. This provides a form of economic accountability. Participation expresses economic support for the network and withdrawal allows users to end that commitment.



2.4 Native Protocol-Treasury Convergence: Alignment of Incentives

Unlike legacy blockchain architectures that decouple network validation from capital management—often relying on external, off-chain foundations or isolated DAOs that face structural principal-agent problems—the INNBC Chain natively converges Validator consensus with Treasury stewardship. Under this unified model, administrative authority over the DAO Treasury & Ecosystem Growth Reserve (30%) and the Future Strategic Reserve (20%) is hardcoded directly into the Peer-Gated Validator DAO consensus layer:

- **Elimination of Parasitic Governance:** External foundation vaults or disconnected DAOs frequently suffer from misaligned incentives; they can liquidate native assets without bearing direct operational responsibility for node infrastructure, network uptime, or latency. On the INNBC Chain, Validator nodes inhabit the infrastructure itself. Their operational revenue (via transaction fee distribution) is intrinsically tied to the real-time throughput, security, and economic health of the network.
- **Symbiotic Feedback Loop:** Validators are economically incentivized to act as optimal fiduciaries. Any destructive action—such as irrational treasury dumping or hostile network parameter manipulation—directly degrades the market utility of the native token, thereby eroding the value of the Validators' own fee yield and capital investments. Conversely, approving strategic grants, liquidity provisioning, or

programmatic fee burns creates a positive feedback loop that enhances network stability, attracts transaction volume, and maximizes long-term yield.

- **Institutional-Grade Consortium Governance:** By elevating Validator nodes from mere block-producers to strategic protocol trustees, the INNBC Chain offers an unparalleled value proposition for enterprise, academic, and DeSci partners. Admission into the Peer-Gated Validator set confers direct voting rights on capital allocation, protocol upgrades, and ecosystem expansion, establishing a robust, self-sustaining "Board of Guardians" anchored entirely by code and cryptographic consensus.

2.5 Technical Performance & Scalability

To support the intensive demands of DeSci (Decentralized Science) and high-fidelity Gaming (Steam integration), the INNBC Chain is optimized for:

- **Ultra Low Fees:** Designed to prioritize ultra-low fees, featuring a governance-controlled base-fee ceiling, while maintaining a high throughput and 2 second block time.
- **EVM Compatibility:** Full support for Ethereum Virtual Machine (EVM) smart contracts, allowing for easy migration of existing DApps and integration with the wider Web3 ecosystem.
- **INNBC Wallet in development:** The INNBC wallet will natively support the chain advanced features such as Universal Wallet Compatibility and Multi-Chain Interoperability
- **Native Utility Integration:** Native INNBC is used to pay network transaction fees. Governance can allocate up to 50% of transaction base fees to community staking rewards, allowing participants to earn fee-funded rewards without new token issuance.
- **Seamless Interoperability & Dynamic Bridges:** We are building fully trustless, decentralized bridges to allow capital to enter and exit the INNBC Chain fluidly. LPs won't find a closed loop, but a high-throughput environment with near-zero transaction fees and hyper-fast confirmation times, creating an arbitrage and yield environment far more profitable than congested legacy chains.



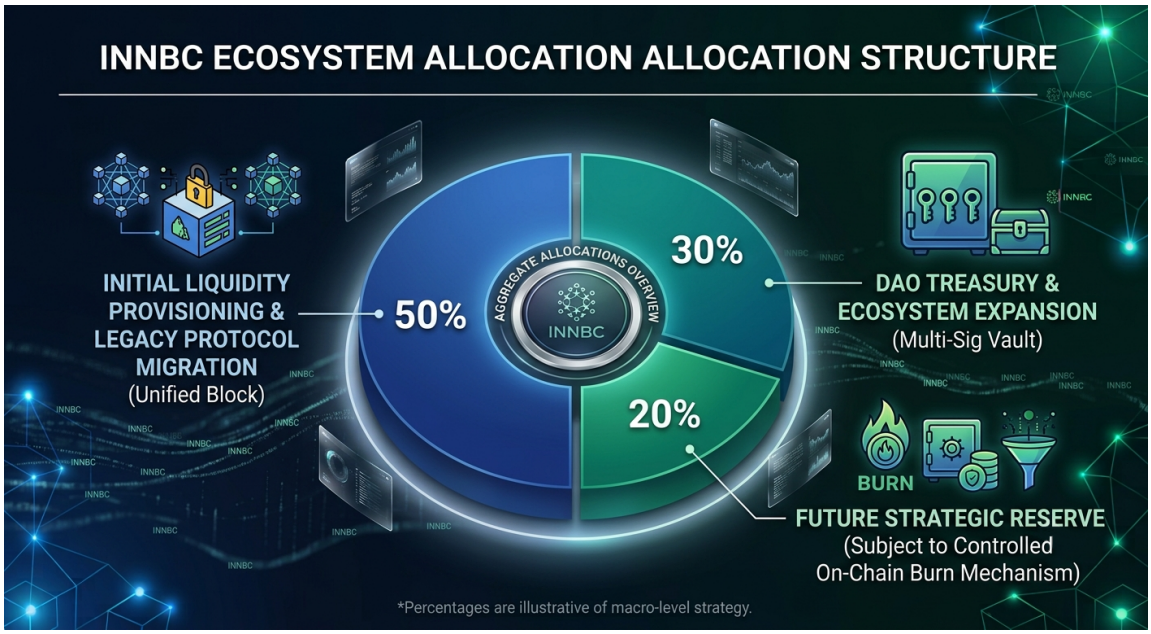
2.6 Tokenomics & Dynamic Reward Architecture

2.6.1 Supply Distribution & Ecosystem Allocation

The INNBC Chain protocol establishes a sovereign, finite economic framework designed to maximize liquidity depth while strictly protecting long-term holders. The network operates with a total fixed supply of 1,000,000,000 native INNBC coins at genesis, structured under a transparent allocation model governed by on-chain smart contracts and multi-signature validator consensus:

- **50% - Initial Liquidity Provisioning & Protocol Migration:** This unified allocation is dedicated to bootstrapping the core market infrastructure and safeguarding the historical community. It encompasses the deployment of deep automated market-making pools to guarantee baseline transactional stability, alongside the automated ledger snapshot migration ensuring legacy ERC20 asset-holders seamlessly transition to the native Layer-1 infrastructure.
- **30% - DAO Treasury & Ecosystem Growth:** Held within a decentralized Multi-Signature smart contract vault requiring validation quorum. These funds are programmatically restricted for protocol development, core maintainer incentives, developer grants, and ecosystem expansion.
- **20% - Future Strategic Reserve:** This allocation serves strictly as an emergency and infrastructure resilience reserve to safeguard ecosystem stability under adverse operational conditions. These funds can only be

mobilized via an official on-chain governance vote executed by the Peer-Gated Validator DAO. Crucially, as the INNBC Chain stabilizes, achieves mature security benchmarks, and proves self-sustaining through baseline transactional volume, the protocol dictates that any portion of this reserve deemed redundant will undergo a controlled, progressive on-chain burn mechanism. This programmatic reduction systematically shrinks the potential maximum supply, permanently rewarding long-term network participants as ecosystem security permits.



2.6.2 Zero-Inflation Model & Governance-Controlled Adjustments

INNBC Chain's supply policy combines zero routine inflation with governance-controlled economic adjustments. Ordinary validator rewards are funded by transaction fees rather than new issuance. Through explicit on-chain proposals and voting, the Peer-Gated Validator DAO can adjust fee allocations and the optional base-fee ceiling. Exceptional issuance is subject to stricter approval and cooldown requirements. These mechanisms are intended to support network continuity and low transaction costs, with decisions made through governance rather than an automatic response to market conditions or network activity:

- **Fee Burn Mechanism:** INNBC Chain has no routine issuance of new currency for validator rewards. In addition, governance can allocate a configurable portion of transaction base fees to the protocol's Fee Burn Vault. Burning depends on the

configured allocation and completed burn operations, rather than an automatic high-volume trigger. Net supply changes also depend on any exceptional issuance approved through governance under strict approval and cooldown requirements.

- **Governance-Controlled Base-Fee Ceiling:** INNBC Chain prioritizes low transaction costs through an optional governance-controlled ceiling on the base fee per unit of gas. When enabled, this constrains base-fee growth while allowing normal adjustment below the ceiling. Total transaction costs also depend on gas consumed and any priority fee.

2.7 Environmental Sustainability and Energy Consumption

The INNBC L1 Chain is built upon a **Proof-of-Stake (PoS)** consensus mechanism, which is fundamentally designed for energy efficiency. Unlike legacy Proof-of-Work (PoW) systems that require massive computational power and electricity, the INNBC protocol secures the network through resource staking:

- **Low Carbon Footprint:** By eliminating the need for intensive mining hardware, the network's energy consumption is negligible, aligning with global standards for environmental sustainability

- **Efficiency by Design:** The architecture is optimized to process high transaction volumes (High Throughput) with minimal electrical overhead per transaction, making it one of the most eco-friendly infrastructure solutions in the DeSci and Gaming sectors.

3. INNBC Ecosystem and Real-World Technological Assets (RWA)

The INNBC Chain sovereign network is supported and powered by a diversified portfolio of software products engineered by the core technical architect. Rather than relying on speculative concepts, the network derives its utility from deployed, real-world technological assets spanning decentralized science (DeSci), automated intelligence (AI), decentralized finance (DeFi), and digital entertainment (Gaming).

3.1 DeSci Infrastructure: The INNBC Biomedical Dapp

The primary scientific application of the ecosystem is the INNBC Biomedical DApp, a decentralized application developed to establish a new standard for the storage, verification, and sharing of critical scientific and clinical data:

- **ITCI Framework:** The DApp introduces a rigid framework providing Identity, Timestamping, Content verification, and Immutability (ITCI) on-chain. This structure prevents data tampering and guarantees the absolute integrity of scientific data streams, establishing an undeniable digital proof regarding the exact origin and authorship of the data.
- **Academic Validation:** This decentralized model for handling health and scientific data has achieved global academic recognition. Notably, the underlying peer-reviewed research published in Springer Nature's “BMC Medical Informatics and Decision Making” peer-reviewed medical journal has been officially cited by Harvard University researchers in peer-reviewed neurological studies, validating INNBC’s data architecture as a benchmark component for advanced digital-twin health frameworks (https://link.springer.com/article/10.1186/s12911-024-02498-z)

3.2 Autonomous Systems & Financial Utilities

Beyond core scientific data storage, the transactional and computational vitality of the Layer-1 network is sustained by a suite of autonomous software architectures and non-custodial financial utilities. These integrated applications are engineered to process high-velocity operations, lower barrier overheads for independent researchers, and provide seamless, decentralized liquidity routing across the native ecosystem:

- **INNBC AI Agent:** An advanced software suite comprising autonomous AI agents engineered to perform high-velocity data retrieval, automated fetching across massive biomedical databases, and real-time computation. These AI agents drastically reduce traditional operational overhead, allowing independent researchers to execute complex analyses natively on the layer-1 network.
- **INNBC Swap:** The native decentralized exchange (DEX) and automated market maker (AMM) and Aggregator protocol of the network, designed to guarantee frictionless, non-custodial liquidity routing for the ecosystem's

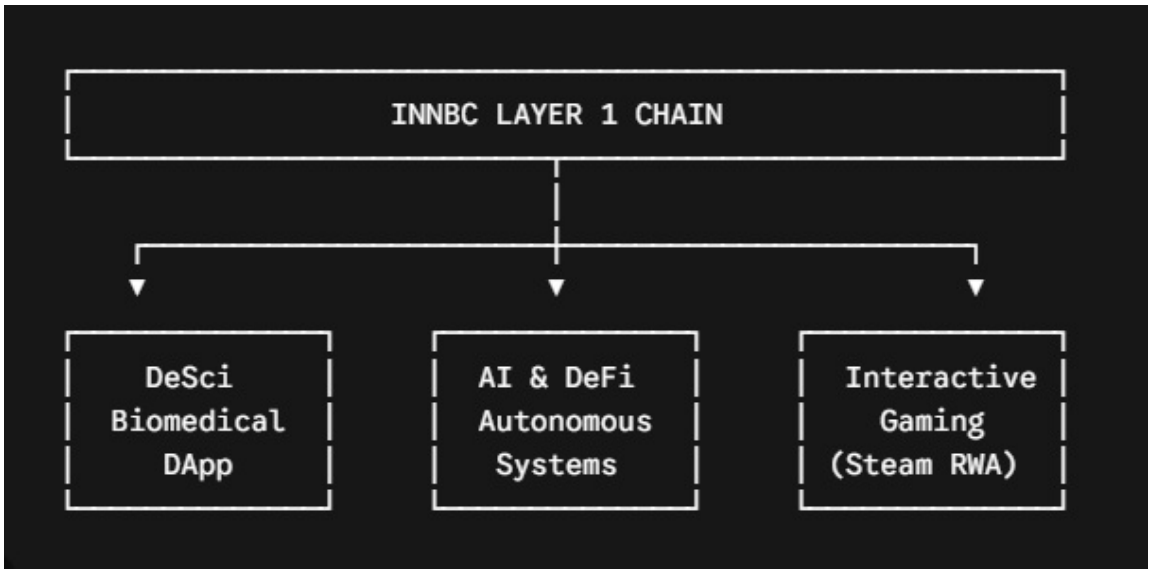
assets with negligible latency. INNBC Swap is an all-in-one cross-chain bridge and next-generation DeFi engine that scans multi-chain liquidity routes to guarantee users the most optimal paths and the lowest possible fees.

3.3 Interactive Software Assets: INNBC Gaming as an Off-Chain Revenue Bridge

The ecosystem strategically incorporates traditional, high-fidelity personal computer entertainment software to anchor the network's underlying value to real-world commercial assets:

- **INNBC Starfighter (Traditional Web2 Asset):** Deployed on Valve's global distribution platform, Steam, INNBC Starfighter is a high-performance combat simulation software asset delivering native 60fps+ graphical execution. It operates fundamentally as a traditional Web2 asset. Its commercial value, distribution pipeline, and user base are rooted in the established traditional gaming industry, completely independent of cryptocurrency market fluctuations.
- **The Real-World Asset (RWA) Value Inflow:** By maintaining INNBC Starfighter as a traditional Web2 product, the ecosystem ensures that the software possesses intrinsic, independent value derived from the real economy. Revenue, engagement, and technological intellectual property (IP) generated in the Web2 space are strategically leveraged to support and drive utility toward the INNBC Chain, establishing a robust bridge where real-world technological assets actively back the transactional vitality of the Layer-1 infrastructure.
- **Pipeline and Future Titles in Development:** To expand this commercial anchor, the development pipeline is actively scaling with additional gaming titles currently in active development. These upcoming software assets will follow the same architecture, targeting different genres and user demographics within the mainstream PC gaming market, thereby creating a diversified portfolio of traditional intellectual properties (IPs).
- **Protocol Software Licensing Framework:** Beyond direct retail distribution, the core technological infrastructure—encompassing proprietary game engines, graphics optimization pipelines, and specialized software modules developed by the technical architect—is structured to be commercialized

through B2B enterprise licensing agreements. By offering third-party developers, independent studios, and commercial enterprises legal access to deploy and scale their own products utilizing INNBC's production-ready frameworks, the ecosystem establishes a highly scalable, recurring off-chain revenue stream. This institutional software licensing model ensures a continuous commercial inflow that directly backs and stabilizes the long-term operational resilience of the underlying Layer-1 network.



4. Historical Foundations: Innovative Bioresearch as the Originator of DeSci

The conceptual and operational framework of Decentralized Science (DeSci) within the ecosystem did not emerge as a reaction to recent Web3 trends; rather, it represents the continuation of a pioneering asymmetric research model established prior to the official tokenization of the ecosystem. Under the strategic direction and novel vision of company founder Jonathan Fior, Innovative Bioresearch initiated its integration of alternative, on-chain capital generation and independent scientific inquiry long before the formal emission of the INNBC asset in 2018:

- **The Birth of Decentralized Funding Protocols (2016 HIV In Vivo Study).** In 2016, Innovative Bioresearch bypassed traditional institutional grant structures and centralized pharmaceutical funding by executing and publishing the world's first study funded via independent capital generated through early blockchain-space operations. This study successfully achieved

the in vivo translation of an innovative cell-based HIV therapy utilizing irradiated SupT1 cells as decoy targets in Hu-PBMC BRGS mice, demonstrating a significant (~10-fold) reduction in plasma viral load during early-stage analysis (PMC4931630). By executing this highly complex, peer-reviewed study outside the traditional academic-industrial complex, Innovative Bioresearch established the baseline operational proof-of-concept for what is today recognized globally as DeSci.

- **Broad-Spectrum Biotech RWA Foundations (2014 Oncology & Regenerative Framework).** The foundational intellectual property and research direction of the ecosystem are anchored in long-term, high-impact biomedical fields. This is underscored by previous peer-reviewed conceptual frameworks published in 2014 focusing on comparative cellular mechanics, specifically utilizing salamander limb regeneration as an advanced model for tumor regression and novel regenerative protocols (PMC4174516). This historic lineage establishes that the ecosystem's structural research fields—ranging from retroviral suppression to oncology and tissue engineering—are genuine Real World Assets (RWAs) that the INNBC infrastructure was specifically engineered to scale, automate, and immunize against centralized data tampering.
- **The Evolution into $INNBC Specialist Infrastructure.** The 2018 emission of the INNBC token represented the architectural specialization of this journey. The token was introduced precisely to replace sporadic early blockchain funding with a continuous, programmatic, and decentralized liquidity engine. By route of this evolutionary lineage, the platform seamlessly synthesizes historical, real-world biomedical asset development with state-of-the-art Web3 data integrity frameworks.

5. Conclusion and Source Code Transparency

The INNBC L1 Chain represents a definitive paradigm shift where decentralized science, automated intelligence, and real-world software assets converge into a sovereign, high-performance infrastructure. By transitioning from a legacy token to a dedicated Layer-1 protocol, the ecosystem replaces abstract speculation with empirical technological utility. The integrity, security, and architectural stewardship of the network are driven entirely by production-ready code, moving the project from a tokenized asset toward a democratic global infrastructure operated by its community

5.1 Source-available Verifiability and GitHub Repository

In alignment with the core principles of decentralization, absolute transparency, and peer-validated engineering, the underlying architecture of the ecosystem is entirely public and auditable.

The complete source code for all Innovative Bioresearch (INNBC) software products—encompassing the Layer-1 blockchain infrastructure, the DeSci data management protocols, the AI autonomous agent frameworks, and the core systems behind the Web2 gaming ecosystem—is natively hosted and maintained on GitHub.

6. Disclaimer and Risk Factors

INNBC is a utility token meant as a means of accessing the project ecosystem and products. **INNBC** is not proposed as an investment. The purchase of INNBC token (hereinafter in this article “Risk Factors” referred to as the "Token" or "Tokens") may be associated with a high degree of risk. To protect the interests of Tokens’ potential purchasers, the development team conducted an analysis of such potential risks and outlined the result in this section of the Whitepaper.

IMPORTANT: THE LIST OF RISK FACTORS DESCRIBED BELOW IS NOT EXHAUSTIVE. IN ADDITION TO THE RISKS DISCLOSED IN THIS WHITEPAPER, THERE MAY BE EXISTING OTHER RISKS WHICH THE DEVELOPERS AT PRESENT CAN NOT REASONABLY FORECAST. Prior to acquiring Tokens, each potential Token purchaser is advised to carefully review all the information and assess the risks of such purchase.

1. Technical and technological risks

- 1.1. Risks of the blockchain: Malfunction of the blockchain protocol may lead to a restriction in the use of Tokens, and / or to the fact that Tokens or the platform will function in an unforeseen manner.
- 1.2. Risk of hacker attacks: Tokens can be expropriated and / or stolen by hacking or other attempts to intervene in smart contracts. In the event of such an error or weakness of the software, there can be no remedy, and token owners are not guaranteed any compensation.
- 1.3. Risk of loss of private keys: The loss of the necessary keys associated with a

digital wallet can lead to loss of access to Tokens. **The Developers** assume no liability for such losses.

- 1.4. Risk of using new technologies: Tokens and blockchain are relatively untested technologies. There is no guarantee that in the future these technologies will not fail or become incompatible with new inventions.
- 1.5. Risk of incompatibility: The wallet service provider chosen by the tokenholder must be technically compatible with Tokens. **The Developers** assume no responsibility for errors related to the wrong determination of compatibility.
- 1.6. Financial risk: INNBC is neither proposed as an investment nor promised the generation of profits. Token holders must be warned about the potential risks associated with the volatility and liquidity of the crypto markets. **The Developers and Maintainers of the protocol** assume no responsibility for any financial loss related to the above.