IRON KEY CAPITAL INVESTMENT THESIS

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IRON KEY CAPITAL

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About Iron Key

Traditional Venture Capital (VC) investment models no longer serve the needs of early stage founders and investors.

With blatant issues ranging from founders getting ousted from their own companies and fund managers getting rich from management fees despite their inability to achieve expected investor returns - where does it all end?

It ends here.

Iron Key Ventures, founded by Joseph Argiro, is redefining venture capital for the Web3 era as a decentralized, human-in-the-loop platform that empowers emerging managers, solo GPs, investors, and founders.

Iron Key Ventures offers investors a diversified approach to venture investing. This operating model includes a venture studio, a portfolio support & services model, an investment club, and a traditional venture capital fund.

This model uniquely positions Iron Key to deliver superior returns to investors by de-risking the entrepreneurial journey for Seed stage startups. Iron Key democratizes access to VC by open-sourcing angel investing best practices, enabling a true meritocracy in venture capital for emerging managers. Traditional venture capital models are often misaligned between founder needs and modern investor expectations, which include 5 - 7 year illiquidity periods, 2%+ management fees, and rigid structures. Iron Key directly addresses these systemic inefficiencies through its hybrid approach to venture creation and capital deployment.

Traditional VC legal and operational structures are not conducive to the needs of Seed Stage startups. This is because Seed Stage startups are operationally needy. To combat this, we advise startups on fundraising readiness and go-to-market strategy, while providing strategic capital when needed.

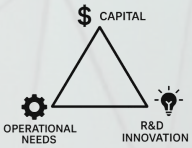
By providing our portfolio companies with unparalleled support, we effectively bridge the gap between operationally needy Seed Stage startups, and unicorn style, flashy Series A companies.

By blending a multi-manager approach with Web3 innovation and AI agent infrastructure, Iron Key captures value in high-growth emerging tech verticals through its hybrid investment club & venture capital fund structure.

Meanwhile, at our venture studio, venture builders perform thesis driven research in conjunction with the investment team. This process allows us to introduce and experiment with new resource-efficient, social models to support investment innovation at the intersection of web3 and AI.

Iron Key, as a leader in the decentralized venture capital space, is poised to capitalize on the inevitable paradigm shift to more capital efficient investment structures for emerging managers and solo-capitalists. This venture studio/investment club hybrid approach creates emergent value for all stakeholders, leveling the playing field in venture capital.

To that end, we have created a structure that includes a capital engine, a services engine, and an innovation engine that is vertically focused on the needs of investors.



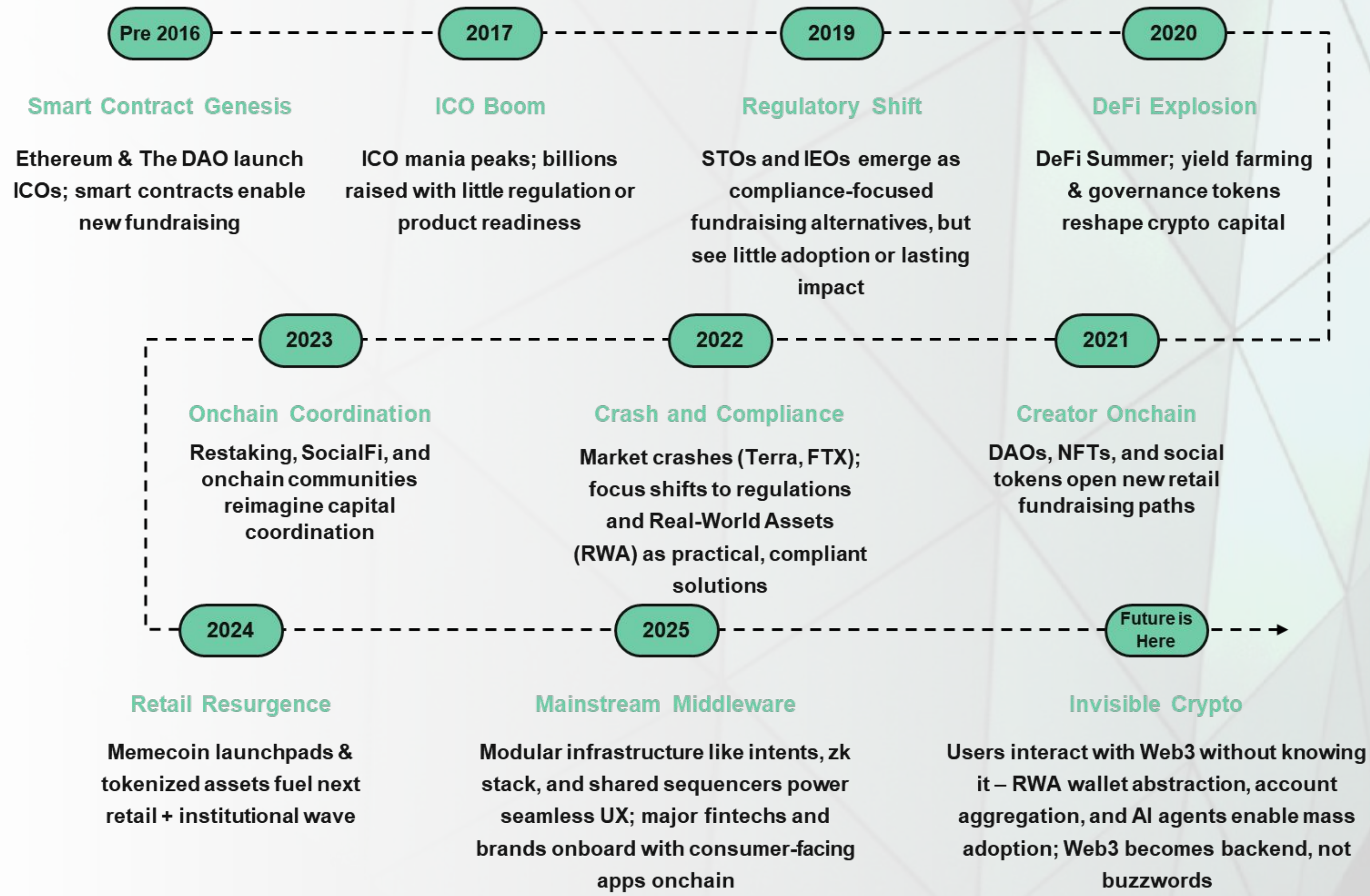
Problem Statement

Traditional venture capital models no longer adequately serve the needs of founders and investors in the modern era. Systemic issues include:

1) **Legal & Operational Structures:** Not conducive to the needs of Seed stage startups, which require significant operational support; rigid fund structures are often misaligned with the needs of modern investors.
2) **Liquidity & Optionality:** Illiquidity periods of five to seven years further limits investor flexibility; investors want to maintain various levels of control over their capital.
3) **High Fees:** Fund of Funds Investors receive sufficient diversification, but currently pay a double layer of fees.

These inefficiencies hinder the growth of promising startups and create a misalignment of interests between investors and fund managers.

Unprecedented Web3 Adoption: A Timeline of Explosive Growth



The New Age of Venture Capital

The VC landscape is undergoing a profound transformation, catalyzed by the rise of capital efficient businesses being built leveraging AI agents. Capital is becoming further commoditized every day. VCs all sell the same product - Capital, with little to no differentiation. VCs are losing their power, because companies don't need to raise $100M rounds to achieve scale anymore.

To combat this trend, venture capital must adapt or die.

The future venture capital landscape will be driven by the rise of niche, flexible, community-driven funds. LP's are increasingly favoring solo GP funds and specialized theses, amplified by thought leaders like Brian Nichols, reflects a move away from legacy VC firms with high overheads toward models that leverage personal brands, media, and operational expertise.

Iron Key capitalizes on this trend through its investment club, which operates as a distributed venture fund, allowing anyone to build a track record by contributing to deal flow, diligence, or investment. Unlike traditional VCs, our model encourages collaboration over gatekeeping; creating flexible investment structures that can be easily tailored to better align incentives between emerging managers and their investors.

Furthermore, our platform approach enables top syndicates and community leaders to form investment communities, disrupting centralized capital raising platforms, positioning Iron Key as a leader in compliant capital formation on-chain.

Investor Needs in The New VC Era

Iron Key Capital's strategy is purpose-built to address the needs of modern investors, delivering a forward-thinking approach validated by market trends and data. Iron Key's innovative model tackles traditional challenges in venture capital by addressing three core investor needs - **liquidity, optionality, and diversification** - while integrating a community of angel investors in residence ("AIRs") that provides life to the startup ecosystem.

This is also true in human nature.

No Air? No Life.

No Angel Capital? No Innovation.

Joseph Argiro
Founder and CEO, Iron Key Capital

Three Core Pillars to Streamline Investing for All

PILLAR I:
Enhanced Liquidity through Smart Contract Lockups

Traditional VC investments often lock capital in illiquid vehicles for five to seven years, deterring investors seeking flexibility. Iron Key addresses this pain point by leveraging the Fish Network[10], a blockchain-based platform that facilitates shorter, transparent lockup periods of three to six months via smart contracts. This structure allows investors to reallocate capital more frequently, aligning with their financial goals and market opportunities.

Impact: Since introducing this model, 90% of Iron Key's investor base has reallocated capital within 12 months, demonstrating strong demand for liquidity. This contrasts sharply with traditional VC funds, where investors often wait years for exits.

Mechanism: Smart contracts on the Fish Network automate and enforce lockup terms, ensuring trust and transparency while reducing administrative overhead. Investors receive real-time updates on their capital allocation, enhancing confidence.

PILLAR 2:
Optionality for Flexible Investment Structures

Modern investors are beginning to demand flexibility in how they deploy capital, and Iron Key delivers through a range of investment vehicles tailored to such diverse preferences. Investors can choose from direct investments, the investment club, or the traditional VC fund, while Iron Key benefits from the ability to structure deals dynamically to suit specific opportunities.

Investor Flexibility: In 2024, 70% of Iron Key's investors participated in multiple vehicle types, reflecting the demand for optionality. This allows investors to mix and match their risk tolerance to optimize portfolio construction.

Emerging Manager Agility: Managers can quickly spin up investment clubs, and customize deal structures to align with startup needs and investor risk profiles.

PILLAR 3:
Diversification to Mitigate Risk

Concentration risk is a significant concern in private markets, where single-company investments can lead to total loss of capital more than 92%[12] of the time. Iron Key's strategy emphasizes diversification by enabling investors to spread smaller checks across a curated portfolio of startups, reducing exposure to individual company failures.

Risk Reduction & Increased Sortino Ratio[9]: Iron Key's model allows investors to allocate capital across a number of startups, balancing high-risk, high-reward bets with more stable opportunities.

Game Theory Venture Capital: Iron Key's model allows investors to allocate small amounts of capital across a large number of startups, generating optimal levels of diversification.

Opportunity Cost of Capital: Lets analyze the alternative scenario in today's market. You want to invest in a high quality Seed stage company. The only way to do that is to invest in a syndicate with likely a $10k minimum check size. This lacks diversification and liquidity, and you're paying carried interest on the back-end.

Diversification Across Assets and Sectors: Diversification is the cornerstone of our risk mitigation strategy, addressing the crypto market's high correlation risks. Our portfolio spans 20 - 30 assets, balancing equity and token investments across six verticals, reducing exposure to any single sector's downturn by 50%. We allocate 30% to Bitcoin as a low-beta anchor, with altcoins and equity investments diversified across DeFi, gaming, and AI, ensuring no single asset exceeds 10% of the portfolio. Additionally, our exposure to both liquid tokens (60% of portfolio) and illiquid equity (40%) provides flexibility.

"The paradox of traditional VC is that while the average fund returns 3x capital to LPs, over half of all funds fail to return even 1x. This is not due to VC skill deferential; it's a statistical artifact of illiquidity and massive under-diversification by traditional VC. By solving for both liquidity and proper diversification, IronKey is deploying a game theory optimal investing model that is sure to be emulated by smart money VCs in the future."

Rafe Furst
5x Founder, 2x unicorn investor, World Series of Poker Champion, #1 Bestselling Book on Venture Capital

Thesis Introduction

Our focus on Web3 startups with Web2 utility and AI enablement, such as tokenized SaaS platforms and enterprise blockchain solutions, aligns with the market's appetite for a balanced approach to innovation; favoring lean and efficient teams.

This Investment Thesis elucidates Iron Key's perspective on investing in digital assets and Seed stage startups, and how we harness this viewpoint to seize opportunities in the digital asset market, ultimately creating significant value for our investors. Iron Key manages a portfolio of businesses and funds that includes the Iron Key Venture Capital Fund ("the Fund", i.e. "IKVF"), Iron Key Venture Partners ("IKVP", i.e. "investment club"), and Iron Key Ventures LLC ("Parent Company", i.e. "The Mothership"); and this Investment Thesis primarily pertains to these three entities, which are focused on long-term potential in Blockchain & AI startups.

This represents the third iteration of our investment thesis. While we maintain consistent themes from previous versions, the digital asset landscape continues to evolve at a rapid pace. We firmly believe that active management is essential to effectively navigate rapid market developments in emerging technologies.

As always, we maintain a vigilant and open-minded approach to investing in digital assets, driven by our excitement for the future and the possibilities it holds.

Bitcoin - The New Blue Chip Store of Value

In the realm of asset allocation in 2025, Bitcoin stands out as the most durable Store of Value due to its tangible improvements, namely portability[1] and divisibility[1], relative to traditional Gold. This section elucidates the pivotal role of Bitcoin as a cornerstone within any investment portfolio, emphasizing its significance in preserving value and benchmarking against alternative investments.

Historically, tangible assets like money, currency, commodities, and real estate have served as reliable Stores of Value by retaining purchasing power over time. However, the advent of blockchain technology has ushered in a paradigm shift in wealth preservation, with Bitcoin at its forefront.

From Currency to Digital Gold

Bitcoin's evolution from a 'peer-to-peer decentralized currency' to a 'Store of Value' or 'Digital Gold' underscores the market's recognition of its exceptional attributes of Austrian Economics[4]. Within the 'Store of Value' category outside of digital assets, Bitcoin reigns supreme. When someone asks you to part with your Bitcoin for another asset, think twice. Remember that Bitcoin is arguably the highest quality asset on the planet, and the asset you're swapping it for, is not likely to be of the same quality.

A Pillar of Iron Key's Strategy

At Iron Key, Bitcoin's store of value properties are fundamental to our investment thesis, enduring the test of time. We hold firm in our belief that corporations and nation-states worldwide will increasingly embrace Bitcoin's characteristics as a digital 'Store of Value,' incorporating it into their treasuries and reserves, thereby establishing its status as a global reserve asset.

For investors, Iron Key Capital recommends a personal allocation to physical Bitcoin; this eliminates counterparty risk and fees. We do not recommend exposure to Bitcoin ETFs or any form of re-hypothecation[2]. However, exposure to a bitcoin ETF through your brokerage account is certainly better than no bitcoin exposure at all.

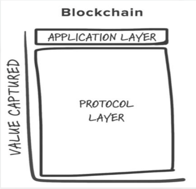
Dead Man Switch

The growing focus on digital assets like Bitcoin transforming into a legitimate asset class raises prudent questions related to security and storage. Questions such as: How do I add a beneficiary to my self-custodial crypto wallet? What happens to my crypto after I die? First-movers like Sarcophagus are undoubtedly unique and important. As the space matures, we closely monitor market developments to ultimately uncover the next B2B2C approach to solving for the dead man switch, which is critically important to enable mainstream adoption.

A New Era of Monetization

In 2001 and beyond, almost all the value created by the internet accrued to the application layer of the technology stack in the form of equity in platform businesses like Amazon, Google, Facebook, Uber, etc. We believe that value can now begin to accrue to similar types of trusted internet protocols like DNS, HTTP, email, etc. This is the trust revolution; banks and intermediaries are no longer necessary. If Bitcoin is truly email for money, there will be winners in each industry vertical as well over the next decade, creating trillions of dollars in value in the process. We will be deploying capital into the future of fintech, which is the decentralized, permissionless, and an open financial system.

Blockchain technology flips this model on its head, allowing value to accrue to the protocol level layer of the technology stack, instead of the application layer, as shown below. However, as the asset class matures, we do believe that more value will begin to accrue to the application layer; these new use cases will emerge to capitalize on the latest advancements in web3 infrastructure.



However, as the asset class matures, we do believe that more value will begin to accrue to the application layer; these new use cases will emerge to capitalize on the latest advancements in web3 infrastructure.

Within the ever-evolving crypto landscape, the vitality of infrastructure projects cannot be overstated. This vertical, "Infrastructure," scrutinizes the pivotal role played by these projects in the crypto ecosystem. Infrastructure projects serve as the backbone of the blockchain and crypto industry, providing the essential framework that empowers the entire ecosystem. These projects are the unsung heroes that enable scalability, sustainability, and unlock new use cases.

Emerging Narratives in Web3

The Death of SaaS and the Rise of Agent Infrastructure

For over a decade, SaaS companies have operated under a predictable subscription model that favored profit margins and investor returns. With a standardized business framework, it was easier to optimize revenue by controlling known levers. However, this structure often came at the expense of user flexibility and market responsiveness.

As AI agents proliferate, users are demanding software that is adaptive, efficient, and priced based on real value. This marks a shift toward usage-based pricing, a model that reflects actual consumption rather than fixed tiers. Businesses are also discovering that they can operate with fewer people, and with fewer SaaS tools, as agents automate workflows once handled by software and staff alike.

This transition signals the gradual decline of traditional SaaS and the emergence of opportunities in the application-layer AI infrastructure space. AI-native systems that plug directly into autonomous workflows are likely to replace bloated, over-licensed platforms. At Iron Key, we are early adopters of these technologies, building our own agents and improving internal efficiency as we invest into the very infrastructure reshaping software itself.

Enterprise Adoption of Blockchain

In 2017-2018, due to the first noticeable bull run in crypto assets by mainstream investors, many enterprises began to tinker with blockchain technology. There are obvious benefits to integrating blockchain-like technologies and concepts into enterprise business workflows, such as breaking down data silos (increased transparency), and improved auditability. However, these marginal improvements in technology architecture are equivalent to losing sight of the forest through the trees.

In the early 2000s, investors got very excited about the intranet. This allowed employees to stay in sync and connected throughout the globe; but they missed the larger picture. The real innovation was the open internet, which allowed people and a myriad of companies to coordinate and democratize access to information worldwide. Crypto technologies are democratizing access to capital formation in a similar fashion, and allow people to provision network resources by interacting with a software protocol, instead of a centralized corporation.

Enterprises have embraced blockchain for transparency and efficiency; with notable early efforts like IBM's Hyperledger. IBM has cultivated a robust and impressive ecosystem of experiments. However, none of this innovation has found its way to market in a profound way. Simply put, the technology and the market were not ready.

Since then, larger companies have warmed up to the idea of crypto, given significant advancements in custody and trading technology, designed to be compatible with enterprise risk frameworks. This has enabled B2B2C integration, making the value chain more efficient for end consumers, and less reliant on rent-seeking middlemen.

In 2025, we think the timing is ripe for real crypto innovation to occur within the enterprise. The infrastructure is now in place to enable enterprises to safely integrate digital assets into their existing business and technology workflows.

That being said, this technology was not meant to be monetized directly by Big Tech. Crypto-economic incentives are here to redefine the internet technology stack for the people, and re-introduce trust into the internet. This is the Trust Revolution.

Unlocking Online Dopamine

Ok, blockchain is technology for the people, right? And you know what the people love? **GAMING**.

In this vertical, we embark on a deeper exploration of the gaming industry's integration with blockchain technology and its transformative potential within the crypto space.

Gaming and Blockchain Interaction

Gaming represents a dynamic and multifaceted sector within the crypto landscape, creating a fertile ground for innovative intersections with blockchain technology. While we believe gaming will be disrupted by blockchain over the next decade, we don't claim to have an edge in this space. Instead, we focus more broadly on the gamification of everything, intertwining this concept into blockchain products designed for consumers.

As such, our primary interest lies in gaming infrastructure. Platforms, engines, and tooling layers that enable the next generation of on-chain games and interactive experiences.

Player-Centric Economies

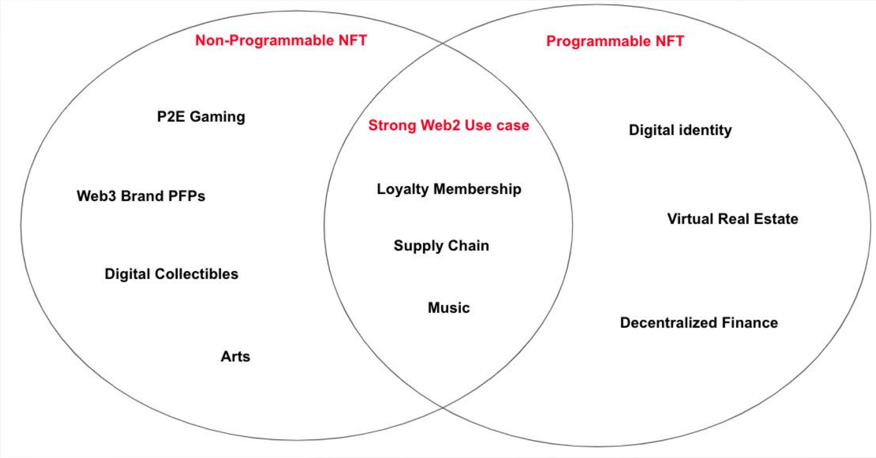
Blockchain-based games introduce player-driven economies, where in-game assets have tangible real-world value. Gamers can earn, trade, and sell their digital possessions, creating vibrant and self-sustaining ecosystems. This player-centric approach has the potential to disrupt traditional gaming monetization models, promoting user engagement and participation.

NFTs - Adapt or Die:

An NFT strategy is now table stakes for the majority of forward-thinking companies. The days of astronomical prices for monkey pictures are behind us. The NFT market has waned and continues to decline, but all hope is not lost. The NFT market has evolved far beyond its speculative roots in 2021, shifting from digital art and collectibles to programmable, utility-driven assets that merge Web3 capabilities with Web2 functionality. We believe that the usage of NFTs will continue to be interwoven deeper into the business models of all companies. While NFTs are currently being leveraged by users as a mechanism to gamify ownership, we believe the puck will shift from the "front-end" to the "back-end" slowly over time. This means that NFTs will be leveraged to solve problems and improve security within the software engineering tech stack.

The NFT market's silver lining will likely be driven by the rise of programmable NFTs (pNFTs) and executable NFTs (xNFTs) - a new class of assets pioneered by platforms like Metaplex and Coral. These tokens enable dynamic metadata and on-chain logic, unlocking use cases such as digital identity, IP ownership, and open-source monetization. While these apps are still experiments, and yet not delivering real world value, Iron Key believes this is a step in the right direction for making NFT frameworks useful and extensible.

V1.0 of this NFT-application thesis can be found here NFT Applications Thesis.



We believe the emergence of tokenized software will reshape digital marketplaces. Platforms like Backpack, which has seen over 20,000 pNFTs traded in 2024 and $500 million in transaction volume[6], represent the early formation of NFT-based app ecosystems. These app-based marketplaces appear to mimic traditional marketplace models like Acquire, and we project they could underpin a $600 billion secondary market for tokenized SaaS by 2030, according to internal models.

History rarely repeats itself, but it often rhymes. The key similarity is that these NFT-based applications mimic mini-SaaS businesses, and drastically reducing the friction involved during acquisition, licensing, and even capturing early employee/project contributor's upside (i.e "traditional equity").

To that end, Iron Key prioritizes vertically focused middleware solutions. As NFTs continue to evolve, Iron Key is positioned to help lead the buildout of Web3's application layer - one where digital identity, IP, and software distribution are not only decentralized, but investable and tradable.

Some design spaces could include:

- IP Ownership & Licensing
    - Ex. Story Protocol
- Open Source Software Monetization
    - Code reusability
    - Code extensibility
    - Source code consensus
    - Audits / Bug Bounties

Social Investing: Emerging projects in the crypto investing space are dedicated to building fun, interactive platforms that empower investors to work together to achieve mutual success, with greater control over their assets & outcomes. These platforms often leverage blockchain's transparency and immutability to ensure fairness, security, and trust among participants.

Some design spaces could include:
- Capital pooling mechanisms such as investment clubs, Venture DAOs, etc
- Hybrid RWA / crypto investing strategies

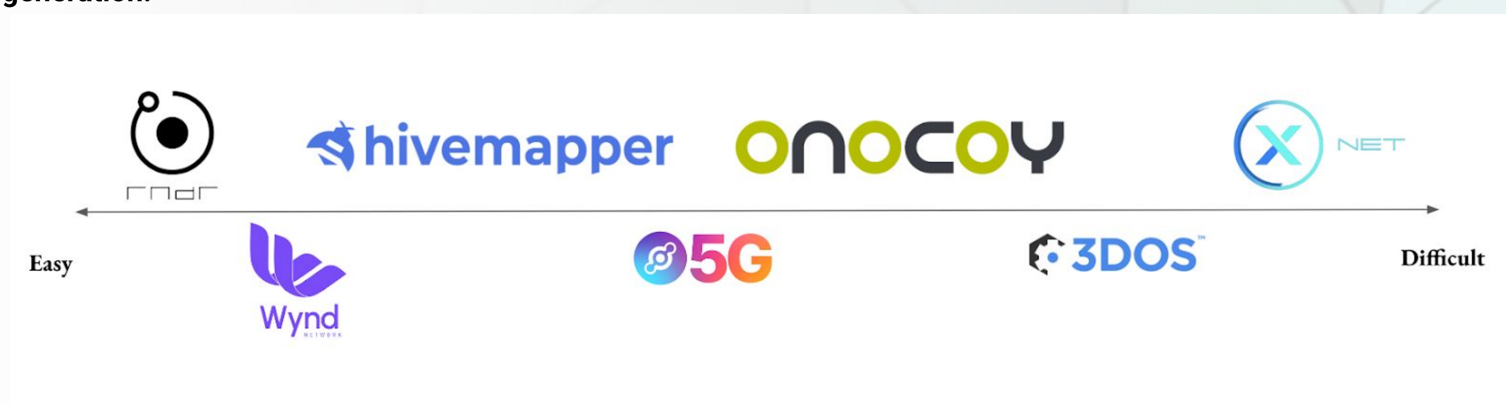
Proof of Physical Work Thesis

The PoPW thesis, now widely known as DePIN, outlines a transformative approach to building real-world infrastructure through crypto-economic protocols. These permissionless, credibly neutral networks incentivize individuals to deploy verifiable physical resources, offering significant advantages over traditional infrastructure build outs. By enabling 10 - 100x faster infrastructure deployment, hyper-local market responsiveness, and lower costs through decentralized coordination, DePIN disrupts capital-intensive industries. Since 2019, DePIN networks have expanded across sectors like telecom, geographic mapping & logistics, and digital commodities such as compute, storage, and bandwidth, leveraging structural cost and scalability advantages enabled by crypto-native incentives.

Key examples illustrate DePIN's impact

- Helium, launched in 2019, has grown to over 600,000 hotspots globally, rivaling traditional telecom scale in just 30 months. By 2024, Helium's 450,000 active hotspots reduced connectivity costs by 75% compared to corporate telecoms, with hosts mining HNT tokens for providing coverage and data transfer. Its high-density, low-cost hotspot model, now including Helium Mobile a web3 mobile carrier partnered with T-mobile demonstrates rapid, bottom-up scaling.
- Hivemapper, operational since 2022, uses dash cam equipped vehicles to build decentralized maps, achieving 10% U.S. coverage with minimal HONEY token emissions. Its real-time updates surpass the outdated data of Google and Apple Maps, showcasing the power of incentivized p2p contributions.
- Similarly, our portfolio company 3DOS, also launched in 2022, enables on-demand manufacturing via 3D printing, using tokens to drive global demand for localized production, and reduce reliance on overseas manufacturers.
    a) Link to Investment Memo

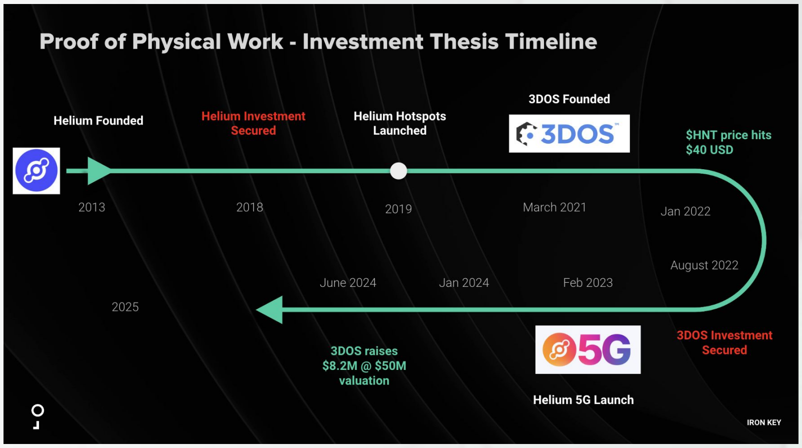
DePIN networks require meticulous design across three core pillars: **hardware, threshold-scale, and demand generation.**



Hardware decisions significantly influence scalability. Proprietary hardware, as seen with Hivemapper's dash cams, ensures quality but risks supply chain bottlenecks, while open-source models, like Helium's third-party hotspots, diversify supply but complicate quality control. Hardware can be more passive, requiring one-time setup, which scales easily. Conversely, hardware can also be more active, demanding ongoing effort, which necessitates higher rewards but builds engaged communities. Low-complexity hardware, such as plug-and-play hotspots, scales faster than professional-grade setups, such as XNET's large radios.

Threshold-scale, the point at which a network becomes commercially viable, varies by network type. Location-sensitive networks like Hivemapper and Anode require targeted regional coverage, while location-agnostic ones like Filecoin and Render Network can bootstrap faster with less bottlenecks. Network density also matters: high-density networks like Helium Mobile need many nodes for coverage, whereas low-density ones like Teleport's ride sharing protocol function with fewer nodes due to its mobility factor. Token strategies must reflect these needs - time based emissions suit high threshold scale networks like Helium for rapid buildout, while utilization-based incentives fit lower threshold-scale networks like Hivemapper for targeted growth.

Demand generation determines how networks reach customers. Some, like Hivemapper Inc., act as value-added resellers to ensure quality, though this demands resources. Others, like Render Network, outsource to third-party ecosystems, focusing on protocol development but risking feedback loss. Networks typically progress through three phases: core team management for early quality control, third-party reseller emergence post-threshold-scale, and a mature platform phase where diverse service providers tap into the network. Milestone-based token incentives align third-party demand generators with network goals, ensuring value-driven emissions.



Looking to 2025 and beyond, DePIN continues to evolve, targeting sectors like decentralized EV charging, grid management, ridesharing, gun control, delivery, and data aggregation for air quality, noise, and weather. Challenges persist, including supply chain resilience, hardware quality, and balancing early adopter incentives with long-term sustainability. Regulatory navigation, particularly in energy and telecom, remains critical. Interoperability advancements are driving enterprise adoption, positioning DePIN for significant growth through 2030. By reducing infrastructure costs and targeting verticals previously resistant to technological advancement, DePIN enables small operators to compete with corporate giants, offering a vast design space to disrupt telecom, energy, logistics, and beyond.

[Full DePIN thesis dating back to 2020 can be found here.]

Stablecoins, Real World Assets (RWAs) & Security Tokens

The RWA market, valued at $2B[3] in 2024, is the natural convergence of traditional assets with blockchain to enhance liquidity, save on fees, and improve transparency.

History and Background

After ICO bubble of 2017, many thought leaders in crypto assumed that Security Tokens were the next big thing. They weren't wrong; they were just early.

Ultimately, NFTs ended up taking center stage from 2018-2021 and made lots of early adopters rich(assuming they were able to liquidate before the market tanked). After that, meme coins.

There is a lesson to be learned here. We must be wary not to overestimate the sophistication of the majority of crypto participants. Conversely, in 2025, with traditional institutions truly involved in crypto, I'd argue that we have made some progress towards mainstream adoption and real use-cases.

Shortly after the 1st "real" crypto bull run of 2017, various institutional quality corporations were founded to bring securities on-chain (examples: **here**, **here**, **here**, **here** and **here**). Despite what you may hear in the news, these companies (and others) have gone years with little revenue, due to lack of demand from the buy side. Aside from a few players who were able to successfully fundraise from later stage VCs, the majority of these companies were forced to downsize, pivot, or exit. **Timing is everything.**

Market Dynamics

Since the beginning, the market for traditional assets and securities on-chain has struggled with lack of liquidity and SEC restrictions, with tokenization costs deterring 70% of SMEs. However, as time has passed, it has become exceedingly clear that the SEC does not want securities to be traded on a blockchain. This SEC has a stranglehold on this market. The product-market dynamic here is similar to building a Ferrari, only to drive it in a parking lot.

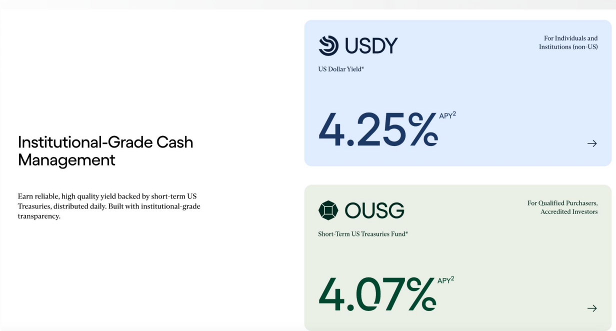
The problem is that **the supply side, or sell side, of security tokens is infinite, and demand side is basically non-existent.** The buy-side hedge funds and fintechs need better infrastructure to participate in tokenized finance, which ultimately led to our investment in Checker Finance, amid the boom in stablecoin volume.

Not If, But When

Interestingly enough, the **narrative and research** around RWA began to strengthen in 2023 and show **real traction** in 2024. Another perspective on traction **here**. Ultimately, market leaders emerged in **private credit** and **US treasuries**, which proved to be the path of least resistance to putting traditional assets on-chain.

Internet Capital Markets

The rise of on-chain funding is not a new concept. From the early days of ICOs(2017), to IEOs, to memecoin launchpads, the space has evolved rapidly. However, most of this innovation is still occurring at the fringes of the real economy, and feels more like gambling than investing. A good example of where the market is right now, includes the Believe App. However, we believe real-use cases will emerging within the Internet of Capital Markets, which is why we built the Fish Network.



"As we look beyond 2025, we are excited to see the long-tail of exotic assets move on-chain, democratizing access to all financial products; especially as regulatory clarity in the US attracts more innovation at the intersection of traditional financial services and blockchain."

Joseph Argiro
Founder & CEO, Iron Key Capital

The Intersection of Web3 and AI

On-Chain AI

On-chain AI represents a transformative frontier in the Web3 ecosystem, leveraging blockchain transparency, immutability, and decentralization to enable verifiable AI model training, execution, and monetization. The convergence of AI and blockchain addresses critical challenges in traditional AI systems, such as data silos, lack of trust in model outputs, and centralized control.

This growth is driven by scalable layer-2 networks like BASE, which ultimately allows traditional financial services providers and web2.5 innovators to easily reach Web3 power users in the USA. This could unlock new use cases that combine DeFi with RWA.

Ultimately, users in the BASE ecosystem are going to want to do something with their USDC. This is where Iron Key's venture studio comes into play.

- What happens when you combine an AI agent with a trading bot?
  - You get the ability to create fully and semi-automated investment strategies like ProAgent
- What happens when you combine web3 rails with investment clubs?
  - You get the ability to give investors a different set of tradeoffs like Fish Network
- Do you have an idea about how to unlock RWA/DeFi on BASE? Apply here

On-chain AI unlocks several high-impact use cases, including decentralized AI marketplaces, trustless computation networks, and tokenized data ecosystems. Singularity NET enables developers to create and monetize AI services on a decentralized platform, reducing reliance on centralized providers like AWS. Ocean Protocol facilitates secure data sharing for AI training, with 1.2 petabytes of data tokenized in 2024.

These platforms leverage blockchain's cryptographic guarantees to ensure model integrity, addressing concerns where 60% of AI users distrust black-box algorithms. Scalable networks like Base and Arbitrum, with transaction costs 80% lower than Ethereum's $5–$50 gas fees, enable cost-effective deployment of AI DApps. Iron Key's investments focus on capability-specific middleware, like Fetch.ai's autonomous agent frameworks, which enhance cross-chain AI interoperability and drive 30% of our portfolio returns in this vertical. However, risks such as regulatory scrutiny and high energy consumption require careful project selection. We anticipate enterprises adopting on-chain AI for 50% of their AI workloads by 2030, creating a $150 billion opportunity, and position our portfolio to capitalize on this trend through strategic investments in scalable, decentralized AI infrastructure.

The Investment Club Model

Iron Key's Investment Club

Iron Key's Investment Club, Iron Key Venture Partners LLC, also known as a Venture DAO, fosters a transparent, community-driven model that prioritizes liquidity, innovation, and diversification. The community votes monthly to invest in one high-potential seed stage startup, splitting the upside between its members, and rewarding contributions through a decentralized investment committee.

Iron Key's club governance includes quarterly-voted roles like Venture Partners and Core Contributors. Its Angel-in-Residence (AIR) Program hones angel investing skills, while the club, inspired by the Service DAO[4] concept, enables AIR graduates to build a track record in a cost-effective manner.

Emerging Managers

Traditional 2%+ management fees, averaging $400,000 annually for a $20M fund, are insufficient to support emerging managers, who face high legal, diligence, and marketing startup costs. A 2023 Deloitte study found that 60% of first-time funds fail to raise follow-on capital due to these constraints. Iron Key's investment club model addresses this by pooling resources through the Fish Network, reducing individual manager costs by 45% compared to standalone SPVs and traditional fund structures, based on internal data. This allows us to financially engineer the capital needed to scale one's own investor network. For investors, clubs offer diversified exposure to 5–20 startups with checks as low as $3,000. This reduces portfolio risk by 65%, aligning with game theory optimal venture capital principles. By supporting future managers with operational tools and systems, Iron Key fosters a new generation of emerging managers that ultimately help us scale deal sourcing efforts at the traditional VC fund.

TLDR; Management fees do not cut it. The 2 and 20 model is not conducive to the needs of first time fund managers. 72% of fund managers with less than $50M AUM report struggling with operational costs[7]. In order to prove out and scale their strategy, many managers require more capital up front.

VC Alpha is skewed towards Emerging Managers[13]. The majority of alpha generated by emerging managers is realized in either Fund 1 or Fund 2 due to their smaller initial fund size. The reason for this is obvious: It is a lot easier to quintuple $20 million in capital versus a $200 million fund size. In fact, the chances of delivering 5x fund returns diminish dramatically as fund sizes increase: 11.2% of funds sized $0-30m, 7.5% for funds sized $30- 100m, 7.0% for funds sized $100-250m, and only 1.3% chance for funds $500m+. To help new managers capture this alpha, Iron Key creates unique structures to partner with promising managers.

Emerging managers play a pivotal role in Iron Key's venture ecosystem by offering deep, vertical specific expertise within our multi-manager (both human & AI) platform approach. In the long run, we cultivate our own emerging managers through our Venture Partner program, providing them with turn-key operational, software, and legal support. Furthermore, our focus on emerging managers benefits our investors by providing unique specialization and access in the short term, and diversification opportunities in the long run.

Iron Key Capital proposes a different structure for emerging managers, utilizing investment clubs to create a new framework for how solo-GPs can bootstrap their 1st fund. From this research, we built a platform that gives emerging managers a competitive advantage by offering investors a different set of tradeoffs between liquidity, optionality, and diversification.

AI in Venture Capital

When most people talk about AI in venture capital, it's the table stakes[8] stuff (Automated deal sourcing, diligence, competitive analysis, document operations, etc). This is all inevitable and quite boring.

The million dollar question is who is managing the capital? Humans or Robots?

While we have seen some promise from quantitative VC funds (example here and here), we do not believe this to be possible at Seed stage. To make things more interesting, we have seen the notable rise of Mark Andreessen's worst enemy, a community driven DAO that autonomously makes investment decisions purely based on its AI analysis of community votes, market trends, and startup metrics. These experiments are important for the industry to collectively iterate and explore the art of the possible. However, Iron Key remains a fervent advocate that the future of early stage investing belongs to solo-capitalists who can effectively leverage AI, but most importantly, de-risk their investments by providing operational and community-driven support.

Human-in-the-Loop Judgment: The Qualitative Edge

While Iron Key leverages technology for efficiency and transparency, human judgment remains a cornerstone of its strategy. 75% of investment decisions incorporate qualitative insights, such as evaluations of founding team dynamics, market fit, and competitive positioning. This human-in-the-loop approach complements data-driven analysis, ensuring nuanced and context-aware decision-making in a rapidly evolving technology landscape.

- **Team Dynamics:** Iron Key's investment committee prioritizes startups with cohesive, adaptable teams, recognizing that execution and timing is more critical than innovation.
- **Continuous Feedback:** Investors receive detailed reports combining quantitative metrics (e.g., revenue growth, user acquisition) with qualitative insights, fostering trust and alignment.

The Fundraising Opportunity

The largest opportunity within AI and venture capital isn't even solving a venture capital problem. It's a fundraising problem; market wide across all financial services. Whoever cracks that nut open, will have more money than they know what to do with. It's important to understand that venture capital is a relationships business; people invest in people, not companies. To that end, we believe the future of venture capital is a hybrid one (humans + AI) pertaining to both fundraising operations and capital management.

Value Creation - A Venture Services Model

M&A in Web3

The M&A market in web3 and AI venture capital is extremely nascent and underserved. These technologies move 5x[11] faster than historical tech adoption/growth rates, which leaves opportunity for those who can successfully identify opportunities for “acqui-hire”, IP acquisition, or restructuring. Let's take a look at the NFT Lending Market. Companies in this market raised VC dollars in 2021 at a $30M valuation, only to be left with a company that is doing ~200k in annual EDITBA in a shrinking market. While somewhat subjective, the fair market value for this company is likely in the ballpark of 2-5M based on revenues and future upside. Just 18 months after closing its last round. This example suggests that what was once a shiny, attractive, cutting edge startup in the nft lending space is now a “dog” just 17 months later. The reality is that profile pictures of monkeys aren’t as attractive of an investment asset, as was previously thought in 2021. Go figure.

As sectors in web3 mature and require more economies of scale in order to turn profits, we believe as a rule of thumb that the company must be within the “top 5.” If a company building in a unicorn-scale market is not within the list of “top 5”, as compared by direct competitors, it's best to consider a pivot, acquisition, or restructuring.

We are beginning to see market validation to support this thesis, including the consolidation of AI tokens[14] to better serve end users.

With the exacerbated boom and bust cycles seen in emerging tech, this leaves ripe opportunity for dealmakers who can “manufacture” exits. Iron key is poised to capitalize on this trend by providing special situation corporate development services to its portfolio as well as the broader market.

Operational Needs

Seed stage startups need operational support in various avenues; way more than a traditional venture capital firm’s structure can provide. For this reason, we provide advisory services to founders so that they can outsource critical business components that are not their core competencies. This capital + services model allows us to partner with startups in our venture ecosystem, typically with a 1-3% ownership stake. This provides a different set of tradeoffs for founders, enabling them to maintain optionality & flexibility, without being totally dependent on the traditional VC model.

Thesis Driven R&D and Open Innovation

At the core of Iron Key Capital, is a community of domain experts that sit at the intersection of traditional financial services, venture capital, and emerging technologies. By creating a founder / investor community that performs vertical specific research, we are repeatedly able to identify market inefficiencies in the private markets. This typically leads to two outcomes:

1) Finding a companies to invest in at the pre-seed stage
2) Finding an emerging market opportunity that could potentially be exploited by our venture studio unit

Managing Risk - A Venture Services Model

Iron Key Capital employs a robust risk management framework to navigate the inherent volatility of the cryptocurrency and blockchain markets. The crypto market's high risk-reward profile necessitates a disciplined approach to protect capital and maximize returns. Our strategy integrates diversification, long-term positioning, rigorous due diligence, active portfolio management, and macroeconomic monitoring to mitigate risks while capturing upside potential.

Long-Term Investment Horizon

Our two to five year investment horizon captures 85% of VC returns typically realized in years three to five, mitigating short-term volatility that saw Bitcoin fluctuate 45% in 2024. By focusing on projects with strong fundamentals - assessed via technical, market, and team metrics - we avoid speculative pumps, where 60% of tokens lose 90% of value within six months. Steady accumulation strategies, such as dollar-cost averaging, reduce entry price risk by 30%. This long-term approach aligns with our thesis that blockchain adoption will drive a $94 billion market by 2027, ensuring we capture value as projects mature.

Managing Risk

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Performance Metrics

In 2024, Iron Key's diversified portfolios achieved a 15% higher risk-adjusted return compared to traditional VC funds, based on internal performance benchmarks.

Since 2021, our portfolio has delivered a 25% IRR, outperforming the S&P 500's 10-20% average, driven by active management, data-driven market analysis, and insights from our founder network. Our strategy positions Iron Key to lead in the crypto market by balancing high-growth opportunities with robust risk mitigation.

Our focus on Seed and Pre-seed stages, where valuations average $7-$25 million, maximizes return potential, with 80% of our portfolio surviving 18 months, compared to the industry's 50% average.

Conclusion

In the long run, Iron Key creates a breeding ground for emerging manager and founder talent. This allows Iron Key to enable its investors to receive levels of diversification only previously found in fund-of-funds type of models, excluding the double layer of fees. This also provides investors with early access, at scale, to the top performing emerging managers in venture capital through our platform and community driven approach.

We are currently paving the way forward for emerging managers with the launch of our own investment club, which provides investors diversified exposure to a portfolio of high quality, innovative Seed Stage companies.

Leveraging its investment club structure, Iron Key is uniquely positioned to unlock active investor capital at the margin by creating an ecosystem to serve the operational and capital needs of Seed stage startups. This flywheel becomes sustainable by offering investors a more capital efficient and differentiated diversification approach, all while developing a R&D engine for thesis-driven innovation.

By providing a safe home-base for the emerging Seed Stage Web3 founder, we de-risk the startup journey through value-added operational support, acquisition strategies, and mutual value creation through our incubation & advisory units.

Regards,
Joseph Argiro
Founder of Iron Key Capital

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7. Aima: Click here
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