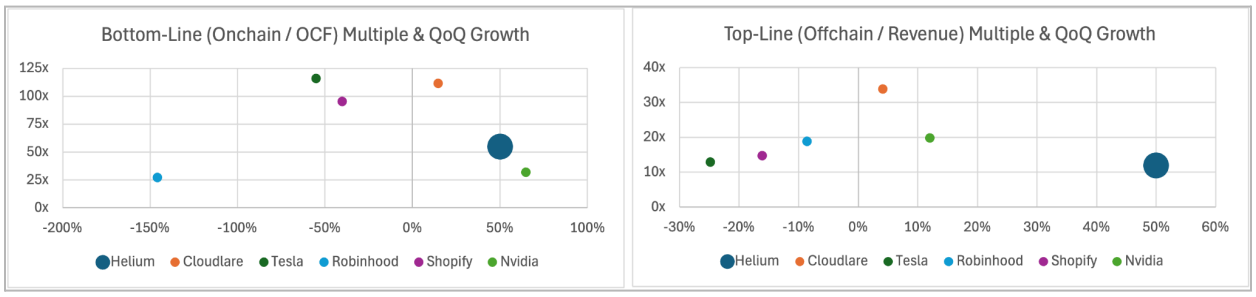
Revisiting the DeWi (Decentralized Wireless) Thesis in 2025

In 2022, we started EV3 with non-consensus conviction in **crypto-enabled businesses** that leverage public blockchains to **coordinate capital and labor globally** at a scale and speed impossible for legacy centralized operators to compete with. On the back of Helium's explosive growth from 10K to nearly 1M IoT hotspots over two years - the fastest wireless buildout in history - we built our initial thesis on DeWi, with some bold predictions for how the space would play out long-term:

> *"At a 50% price discount to TradWi, the addressable market for DeWi networks in the US alone is $150B+ revenues. If DeWi captures only 10% of the market, the networks could generate **$15B revenues** ⇒ **$7.5B EBITDA** ⇒ **$75B+ network value**. The entire market cap of DeWi is <$1.5B today, implying 50x+ upside from today. Even if it takes 15 years to get there, this type of exit would compound investor capital at a 30%+ IRR. We, of course, think the true upside can be multiples bigger than this, and come sooner… DeWi networks are a **structurally-advantaged business vs centralized telecom networks, with valuations that can compound investor capital at high rates for a decade or more**." – On DeWi Unit Economics*

Three years later, with DeWi's onchain revenues up more than 100x, the sector's total market market cap has instead declined to below $600M with most crypto investors writing off the space entirely. DeWi's reference asset - HNT, representing 75% of sector market cap - now trades at 55-90x onchain (bottom-line) revenues and 12x offchain (top-line) revenues, down from >1000x in 2022, while growing at over 50% QoQ.[1] On a growth-adjusted multiple basis, HNT now trades cheaper than the leading publicly-traded growth businesses across fintech, e-commerce, software and AI.[2]



With HNT trading, for the first time, at multiples that "traditional" tech investors understand, we thought it's worth revisiting the DeWi thesis with three years of accumulated learnings. In short:

What We Got Right	What We Got Wrong
1. Telcos are willing to pay to offload their customers' traffic onto DeWi rails.	1. We underestimated legacy telcos' nimbleness and resiliency.
2. Wireless offload has an addressable market that is effectively limitless.	2. We overestimated the maturity of multi-token protocol architectures.
3. Top DeWi miners are profitable without token subsidies.	3. We underwrote CBRS rather than WiFi offload economics.
4. Fixed wireless is the obvious choice over fiber and cable.	4. We underwrote crypto-native vs mass-market growth rates.
5. Customers want to buy connectivity from brands and products they trust.	5. We focused on un-bundling when the dominant trend was re-bundling.

Special thanks to Nick Carpinito, James Fayal, Cosmo Jiang, Vincent Jow, Shaan Chaudhari, Sam Hallene, DMD, and WhoLovesBurrito for feedback on this essay.

[1] 55x represents a multiple of (recurring) data transfer revenues; 90x includes (one-time) miner registration and re-location fees. Onchain data transfer revenues grew +55% in Q2'2025 and Nova Labs' offchain revenues grew +30% MoM in June 2025.
[2] Left represents Q1'2025 GAAP operating cash flow for public comps and Q2'2025 onchain data transfer revenues for Helium. Right represents Q1'2025 GAAP revenues for public comps and reported offchain revenue as of June 2025 for Helium / Nova Labs.

What We Got Wrong

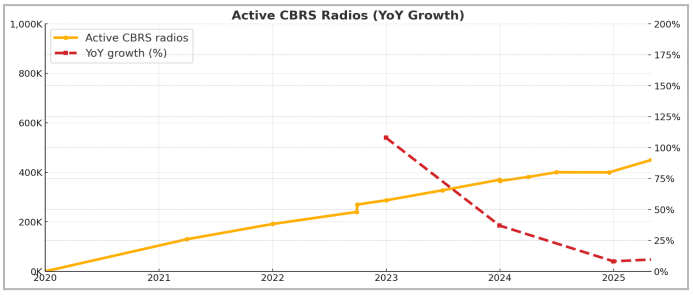
Cellular offload over CBRS spectrum turned out to be a dead end. The FCC opened up the 3.5-GHz CBRS band for unlicensed use cases in 2020, and circa 2022 every DeWi network was focused on selling and deploying CBRS-specific radios that turned out to be nothing but large and expensive paper weights. We estimate that DeWi deployers bought $15m worth of ultimately-useless hardware before the networks abandoned CBRS and pivoted to lighter-touch, lower-margin WiFi-based offload.

Where were we wrong? We suspected as early as mid-2022 that DeWi would struggle to convince telcos to open up their mobile cores to enable CBRS offload. In particular, we were skeptical of Helium's efforts based on an open source software stack originally built by Facebook to support fixed wireless, rather than mobile, use cases, which led to us seeding XNET to build on an alternative, closed-source networking stack. As late as Q4'2023, we continued to believe that CBRS was the winning bet:

> XNET, [redacted] is a DeWi network focused on neutral-host offload. Unlike Helium, XNET does not serve customers directly: instead, they aim to **incentivize wireless deployments that can serve a multitude of different use cases on a single interoperable network**. Neutral host CBRS requires deep technical integrations and has yet to be implemented at scale, and the adoption ramp has been slower than we'd hoped: XNET's negotiations with a national telco were interrupted by a merger, and Helium pivoted away from CBRS to focus on lighter-touch WiFi offload. **We continue to believe CBRS is the "end game" for US DeWi** due to its superior propagation characteristics vs WiFi and its established priority licensing regime. [redacted]

EV3 Q4'23 investor letter

Our mistake was focusing on the **wrong set of centralized gatekeepers**. Telcos were indeed skeptical of the underlying technology powering DeWi CBRS offload, but after 12+ months of partnership discussions were willing to experiment with the leading networks. The gatekeepers we should have been focused on were the **four FCC-registered SASs**, or Spectrum Access Systems: Google, CommScope, Federated Wireless, and Key Bridge.[3] All CBRS radios and traffic must be registered and monitored by one of these SASs to ensure that, among other things, unlicensed traffic does not interfere with government & military users that maintain a priority claim to the spectrum. None of these providers has been friendly to DeWi: by charging exorbitant fees, being overly-conservative with power limits and interference, and adding friction to the radio deployment process, these incumbent SASs have **effectively killed CBRS growth**.[4]



Source: NTIA, Ongo Alliance, Federated Wireless

[3] Technically there are two more licensed SASs, Sony and Red Technologies, however they lack a proprietary sensor network and must rely on other SASs to warn them of government usage.

[4] The number of active CBRS radios grew 4x from 100k in 2021 to 400k in 2024 and has since slowed to <5% YoY in 1H'2025. Of the 400k CBRS radios, two-thirds are in rural markets and one-third are in urban or suburban markets. Verizon and Tarana represent over 150k or 40% of all CBRS deployments, for (sub)urban cellular offload and (rural) fixed wireless, respectively.

In 2024, Helium ran a trade-in program to **deprecate its CBRS networks and pivoted to WiFi offload**, which - while having lower power limits and overall flexibility than CBRS for wireless coverage - does not require integrating with a mobile core or registering with a SAS. The WiFi supply chain is far more mature than CBRS, making hotspots 60-80% cheaper than CBRS radios (however the wholesale price of WiFi offload, at $0.10 per GB, is roughly 80% lower than for CBRS). Additionally, because WiFi is ubiquitous with over 600 million hotspots globally, DeWi can grow by connecting existing or "brownfield" nodes and rapidly increase global coverage. This has driven a wave of software-based DeWi networks that claim impressive coverage stats - such as WiFi Map (16m), Quantinium (15m), Wayru (12m), Roam (5m), and Uplink (2m) - but do not control their nodes at the firmware or at the UX level.

This represents the **biggest gap in DeWi unit economics today**: while telcos are paying $0.10 per GB, miners are earning $0.50+ per GB because protocols have set static pricing which has not been updated since the pivot. The delta is being subsidized by venture-funded centralized operators - $250m for Helium and $3.5m for XNET, per Pitchbook - but this only lasts so long. The more interesting question is **whether DeWi can still give rise to $10B+ networks while charging only $0.10/GB.**

In 2022, with HNT trading at $10, we underwrote Helium reaching its burn-mint equilibrium - i.e., the point at which tokenholders begin to benefit from network revenues through deflation (34.24 HNT per epoch) - with 1 TB of paid traffic per month at a rate of $0.50/GB.[5] With HNT price declining to $2-3 today, the hurdle is even lower and Helium indeed reached the milestone in early 2025 and is now burning tokens above its net emission cap. That is not to say HNT is deflationary: there are still 1.25m new tokens minted each month and the current net burn is roughly 40k tokens per month.

When will the network become deflationary? There are three factors to consider when bridging from Helium's current economics to what we can expect on a 3-5 year investment horizon:

1. **Core vs non-core revenues.** We define core revenues as the onchain revenues from selling WiFi offload capacity to telcos and MVNOs, which represents ~$4m ARR for Helium today. Non-core revenues include onchain revenues from IoT data sales (which have been in decline for the past several years) and from one-time onboarding or assert fees for registering new miners, which represent another $2-3m of annualized revenues for the network. We assume that **core revenues continue to grow at 30-35% QoQ** through 2028, while non-core revenues remain flat.

2. **CBRS vs WiFi pricing.** As discussed above, Nova Labs is currently subsidizing Helium's data traffic pricing from the $0.05-0.10/GB market price of WiFi offload to the $0.50/GB price of CBRS. We assume this subsidy tails off, likely via a protocol-level pricing adjustment, leading Helium's **revenue per GB to fall 15% QoQ from until finally settling at $0.10/GB in 2028**.

3. **Offchain vs onchain revenue.** Nova Labs reports an additional ~$6m of annualized offchain revenues which are not tied to $/GB offload (e.g., selling anonymized location and coverage data). Earlier this month, Nova Labs CEO Amir Haleem tweeted: *"I am spending 99% of my time figuring out how to unify the equity and the token... That's either a tokenized security, or the company becoming a non-profit/pbc that has no shareholders... But in the end I would love HNT to be the only asset that exists in the Helium ecosystem."* We therefore believe it's reasonable to **include these offchain revenues** in our 3-year underwriting case for HNT. However, we assume they grow at only 12.5% QoQ, i.e. at a quarter of the rate of core offload revenues.

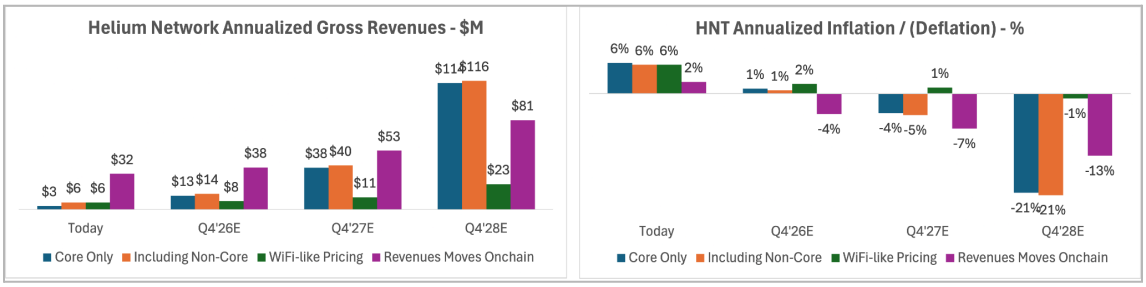
[5] The actual figure in early 2022 was ~1 PB per month because HNT was trading ~4x higher than it is today.

Our analysis led to a few conclusions:

- If pricing remains at $0.50-0.55/GB and paid offload traffic continues compounding at 30-35% QoQ, we can expect HNT will become **deflationary in early 2027** with $16-18m ARR. This is true even without any credit for non-core revenues (e.g., IoT data and miner onboarding fees).

- If Nova Labs stops subsidizing traffic and pricing declines to market rates of $0.10 per GB, Helium will need to offload 40 PBs of traffic per quarter - roughly 15x growth from today - vs only 7.5 PBs per quarter or 2.5x growth from today if the current pricing sustains forever. At the same traffic growth rate of 30-35% QoQ, HNT would not become **deflationary until late 2028**. Note: 40 PBs per quarter is equivalent to only 2m users offloading a fifth of their mobile traffic onto Helium.

- If Helium "migrates" its current offchain revenues onchain by unifying Nova Labs equity and the HNT token under a single structure, HNT can become **deflationary as soon as late 2025.** This of course assumes that Nova Labs contributes 100% of the revenues (not gross profits) from its ancillary products to the network without demanding any new dilution from HNT tokenholders. Such a move would make HNT deflationary ~immediately (post the halving on August 1, 2025).



Source: EV3's Pro Forna Helium Model from June 2025

Ostensibly, the market is focused on Helium Mobile's **subscriber growth and onchain revenue growth** as the two metrics driving HNT sentiment, but hasn't yet understood the difference in pricing for WiFi vs CBRS offload rates. Nevertheless, at current prices the actual core value driver for HNT is whether or not Nova Labs has the ability and intention to make HNT the sole economic beneficiary of the Helium ecosystem by somehow "sunsetting" Nova Labs equity. If this happens and revenue moves onchain, HNT could become deflationary overnight even with no further growth in subscribers or offload traffic.

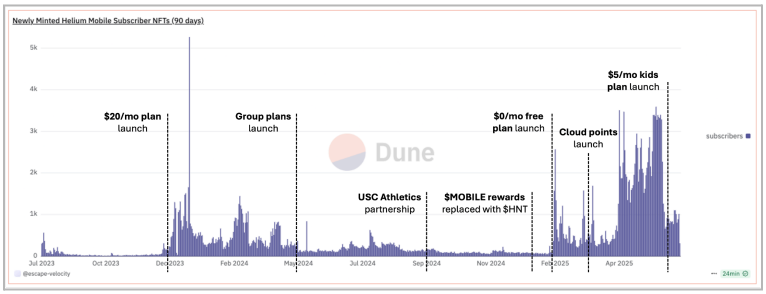
We have a constructive view of HNT at current prices because:

1. **Helium's SEC lawsuit was dismissed in April**, the same week Gary Gensler left office. More broadly, the US Senate passed the GENIUS act last week to regulate stablecoins at the federal level, and consensus is that some form of tokenized securities legislation is coming next. At the state level, SF0050 in Wyoming and SB 265 in Montana are providing new legal pathways to merge the current conflicts between DePIN tokens and the current securities regulations.

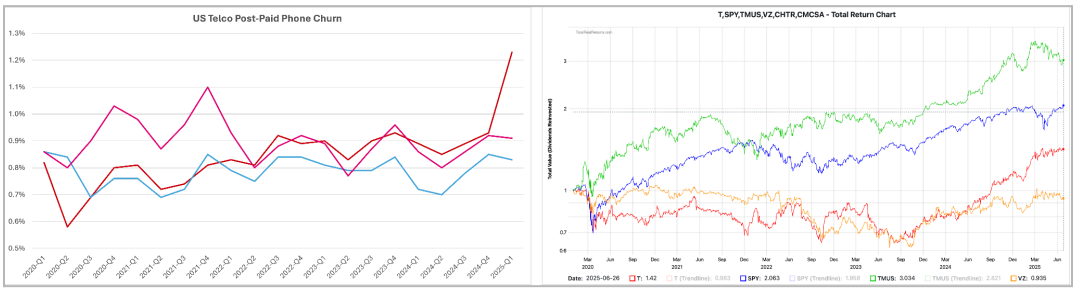
2. **Nova Labs leadership appears fully-dedicated to making HNT the sole beneficiary** of the network's economics, which would itself make HNT deflationary at current prices. This view is informed by founder Amir Haleem's recent public comments on X, Discord, and the PoC podcast.

3. As onchain revenue grows, HNT has the chance to become the **first DePIN token - and one of only a handful of tokens across the entire crypto space** - to be deflationary.

Our second mistake was **overestimating the impact of subscriber-side token rewards** with respect to Helium Mobile's growth. In Q1'24, after the launch of the $20/mo unlimited nationwide plan, we noted that Helium was - at the extrapolated daily rate - adding more than 500K subscribers per year. Fueled by generous inflationary $MOBILE rewards that often exceeded $5-10/mo per subscriber, the initial burst of growth attracted crypto-native and adjacent audiences focused on financial rewards. However, it turns out that **purely financialized incentives are not the strongest hook for mainstream users** and Helium added only +27K new subscribers in the entire second half of 2024. To reinvigorate growth, Helium pivoted to focusing on **delivering value in ways mainstream audiences understand,** e.g. in the form of "free" connectivity via the nation's first free mobile data plan, in-kind redemption for gift cards or donations on Helium's cloud points store, and via a privacy-focused $5/mo plan for kids. With these new features, +150K subscribers in the past quarter alone (Q2'25). Helium currently counts over 300K subscriber NFTs, putting the network on track to meet our original underwriting projections from 2023 that had Helium Mobile reaching half a million subscribers by the end of 2025.[6] With this shift in strategy, we expect to see Helium continue to experiment with using its low-cost offload network to build "verticalized" mobile plans for underserved, cost-sensitive audiences including but not limited to families with children, students and young professionals, gig economy workers and freelancers, etc.

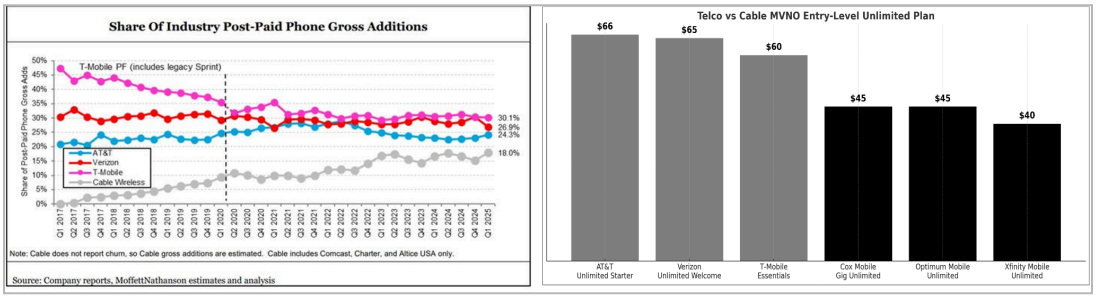


Our third mistake was **underestimating the resiliency and nimbleness of legacy telcos**. In 2022, we believed that a combination of 1) eSIM adoption bringing switching costs down by an order of magnitude, 2) the troubling trend of SIM-swapping attacks loudly revealing telcos' cybersecurity deficiencies, and 3) the rise of brand-centric MVNOs, would all accelerate the rate at which subscribers churned from legacy telcos and eventually put strain on telcos' balance sheets. SIM swaps actually declined in 2024 after the FCC's SIM Swap and Port-Out Fraud Order went into effect in July and carriers implemented secondary "transfer pins" to prevent malicious SIM transfer requests. Overall, **Verizon is the only US telco to have seen a meaningful raise in post-paid phone churn rates over the past five years**, despite eSIM users and devices growing 35-55% in 2024 and eSIM-based startups like Airalo crossing the 20m user mark. In fact, when you include the impact of re-invested dividends, Verizon is down -8%, AT&T is up +40%, and T-Mobile is up +190% compared to the S&P500's +100% total return since the beginning of 2020.



[6] This figure includes churned and free subscribers.

What did we get wrong? We were fixated on eSIMs lowering switching costs, i.e. unbundling, when the **most dominant trend emerging in consumer wireless was actually the re-bundling** of mobile and fixed products. The biggest winners in wireless ended up being cable giants that benefit from structurally-advantaged wireless economics and are able to rationalize offering mobile plans at close to zero margin in order to increase retention and therefore LTVs on their cash-cow cable business. Since 2020, the three cable MVNOs have more than doubled their share of new post-paid phone customers from 9% to 18% primarily by cross-selling to their existing customer base with wireless plans 30-40% cheaper than telcos. While their combined 19 million subscribers and $8B of annual revenues seems massive, these businesses have a long runway for growth in wireless despite what telco executives are publicly saying. 19M represents less than 30% penetration of their existing cable customer base and less than 5% market share of all US cell phone plans. It's worth noting this growth isn't what we would call "product-led" - cable MVNOs have somehow achieved even lower consumer NPS rating than telcos - but is instead driven by consumer's desire to bundle wireless products and consolidate utilities into fewer providers. Extrapolating this trend, the biggest winners in the next 5 years of wireless could be companies like Gigs and Oxio which collectively raised >$100m to execute on the MVNO-enabler thesis: serving brands with existing distribution - fintechs in the case of Oxio, and retail/media brands in the case of Gigs - with a platform by which they can launch their own embedded, white-labeled MVNO products to their customers. The other combination we're excited about is the partnership between Helium and DAWN, who have the opportunity to recreate the bundling value proposition of cable MVNOs by integrating their core offerings.

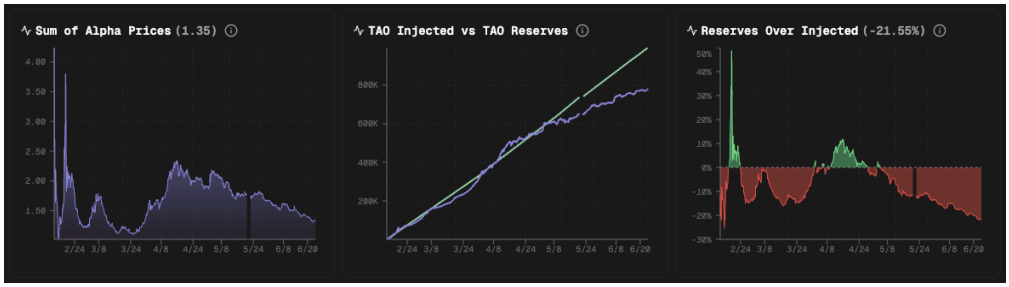


Our final mistake was **overestimating the maturity of multi-token protocol architectures**. Since 2022, two of the networks we were most bullish on - Helium and Bittensor - transitioned from having a single token to launching an ecosystem of tokens (referred to as subDAO or subnet tokens) that are all backed economically and controlled by the governance of the core currency of the network, i.e. HNT and TAO. The thesis was that 1) every subnet/subDAO token would benefit from the existing liquidity and exchange listings of the "parent" currency without incurring incremental costs, and 2) market-based mechanisms could be used to harness the speculative premium of the parent currency to drive growth for subDAOs or subnets with the most long-term potential and therefore value. The challenge is defining the relationship between the parent and children tokens in a way that drives long-term alignment between different sets of tokenholders. The relationship has shifted over time which has made for a volatile trading environment: in Q2'24, we went long MOBILE at a ~$150m market cap, or <25% of HNT at the time, with a thesis on the supposed *"inevitability of value leakage from HNT to MOBILE"* as subDAOs fought for alleviation from a 100% tax on mobile data transfer economics, which were driving virtually all of Helium's revenue growth. This shift turned out to be not-so-inevitable: in Q4'24 the Helium community voted to return to a single-token model, sending the MOBILE token price down -90% against HNT. In the words of Nova Labs' CEO:

"The problem with v3 as a concept was that it was predicated on speculating that there are more high value depin projects out there… The reason we abandoned it is that… There are actually very few or zero high value depin projects beyond helium and a handful of others… Increasing the max supply to fulfil something that doesn't exist becomes a bad idea."

Though we understand the sentiment, we disagree. There are high-value DePINs out there—it's just not clear how to align the incentives of their existing stakeholders with HNT tokenholders. Only two pre-launch, venture-backed DePINs - Dabba and Sourceful - attempted to launch subDAOs on Helium, and both pivoted to launching their own protocols on Solana. To our knowledge, none of the post-launch DePINs with onchain revenue growth (e.g., Geodnet, Akash, Hivemapper) seriously considered migrating onto Helium. Put simply, becoming a subDAO was not an attractive proposition for the best DePINs. In any case, Helium deprecated the subDAO model and now remains effectively a pure-play wireless token.

Bittensor launched subnet tokens in February 2025, nearly two years after Helium. Since then, 8.5% of TAO has been swapped ('staked') into subnet tokens ('Alpha') while over 60% remains staked to root, the risk-free asset of the Bittensor ecosystem, earning a 10-15% yield in TAO without taking subnet price risk. In part because of high "risk-free" root yields, but - in our opinion - primarily because of underdeveloped trading infrastructure, the pace of rotation into subnet tokens has been slow and therefore subnet tokens in aggregate have underperformed TAO. Subnet bulls are projecting massive capital rotations of over $350m from TAO into subnets in the second half of 2025, driving a resurgence in subnet token prices.



Source: TAO.app

Once again, we perhaps naively overestimated how well these systems would work out of the gate from an economic, governance and product perspective. Early on, many (most?) top traders were essentially insiders with advance notice of subnet M&A discussions, which gave them the opportunity to accumulate tokens ahead of the announcement of the transaction and the new team and product direction. And even for the honest traders, getting exposure to subnet tokens is non-trivial. First you need a wallet: you could use Bittensor's native hot wallet, but it doesn't support signing from hardware wallets like Ledgers. For that you need to download the Talisman wallet, which you probably don't have unless you are one of the ~250K active wallets on Polkadot, and install the Polkadot app on your Ledger. Then, you can screen subnets on an explorer like TAOstats.io, TAO.app or TAO.xyz and directly swap/stake your TAO. Let's say you want to trade size: currently, only the top 5 of 114 subnets have sufficient onchain liquidity for you to buy $50K without incurring more than 0.5% slippage. Let's say you want to trade institutional size: none of the 10 qualified custodians like Coinbase, BitGo, Anchorage or Kraken currently support subnet staking.[7] Let's say you want to trade with leverage: there are not yet lending or perps markets for subnet tokens. It's not to say this infrastructure won't get built, but it's been slower than we initially underwrote.

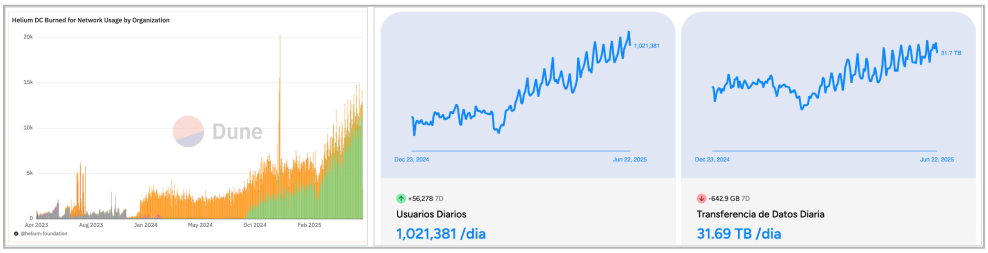
Even with robust infra, Bittensor is bound to face the same challenge as Helium: aligning incentives of high-quality subnets with TAO. Of the 114 subnets, a minority, say 10-20, have shipped compelling products with some level of product-market fit. Of these, an even smaller minority, say 0-2, have figured how to translate demand for their products into demand for their tokens. There's lots of work ahead for the Bittensor community, as should be expected for arguably the most ambitious network in all of crypto.

[7] Earlier today, I received a message from an executive at one of these companies who said: "If [redacted] wants to invest further into the TAO ecosystem (alpha staking, subnet tokens, etc), we will probably need to land another big fund."

What We Got Right

While we've gotten a lot of things wrong, we'd like to think we mostly got the big things right.

The biggest telcos in the world are willing to offload customer traffic onto DeWi rails. In Mexico, Helium ran a pilot serving thousands of Telefonica customers in 2024 and expanded the partnership to serve over 2 million subscribers in 2025. AT&T is roughly a year behind Telefonica, with an initial pilot to offload customer traffic through thousands of US-based Helium WiFi hotspots in Q2'2025. In total, there are currently seven carriers (six besides Helium Mobile) offloading traffic from over 1 million customers to nearly 100k Helium WiFi hotspots. While a lot of the market's attention goes to Helium Mobile, **offload from third-party telcos has driven >100% of Helium's revenue growth over the past year,** outpacing our 2024 expectations and representing a 90%-and-growing share of Helium's recurring onchain revenue.



Going forward, Helium is squarely in the **latter phase of the famous "land-and-expand" strategy**. Telcos generally pilot a few hundred or thousand nodes initially in order to test networking infrastructure, quality of service, settlement and billing, partner support, etc and only then do they gradually roll out the integration across the rest of their networks to benefit from scale economics. With six third-party carriers already piloting the network, we believe Helium will continue driving similar growth rates as it has over the past year - growing offload revenues $1m to $4m ARR - and reaching $15-20m by Q4'26. As discussed extensively above, these revenue figures assume continued, venture-subsidized offload pricing of $0.50 per GB rather than the market rate for WiFi offload traffic which is 80-90% lower. It also assumes that HNT tokenholders take zero dilution in the transition to a unified economic structure, which is probably unfeasible. After adjusting for both these factors, we'd expect offload to reach $15-20m ARR in 2028.

This was and continues to be obvious, but **the addressable market for WiFi offload** - even at rock-bottom pricing of $0.05/GB - **is effectively limitless**. The US alone has 350m wireless subscribers using ~25GB/mo on average, of which ~85% is offloaded to WiFi hotspots. This suggests Helium currently serves <0.01% of the US WiFi offload market and can achieve $1B ARR with only a <5% market share, and Helium's addressable market is not just the US: in addition to being live in the US and Mexico, the network is running trials in Brazil and Hong Kong which represent another 250M+ mobile subscribers. Once Helium's flywheel catches momentum, we believe it will continue to spin for a long, long time.

	Today	2028E	2035E	2040E	
Wireless Subs (M)	370	376	395	425	<< 0.5% YoY
Average GB per Month	25	29	47	98	<< 5% YoY
WiFi Offload as % of Total	85%	85%	85%	85%	<< flat
$ per GB	$0.50	$0.05	$0.05	$0.05	<< 50 to 5 cents
Helium as % of WiFi Offload	0.01%	0.3%	1.0%	4.7%	
Helium Offload ARR ($M)	**$4**	**$15**	**$100**	**$1,000**	

We correctly predicted that the top **DeWi miners would become profitable on the basis of organic data transfer revenues**, i.e. without being subsidized by inflationary token rewards. The top 35 miners today are making >$30/day in data transfer revenues off a $500 investment—an IRR of over 2000%.[8] With exponential growth in data transfer revenues for the highest-quality deployments, Helium has been able to continue growing coverage while massively reducing wasteful inflation to low-quality miners.[9] As a result, Helium is far more capital efficient today than in 2022, and the universe of potential miners has expanded to include even conservative deployers who assign zero value to HNT's speculative premium. Looking back at the largest DeWi miners of 2022-2023, teams that focused on accumulative speculative rewards ultimately shut down, meanwhile the miners that survived either focused exclusively on locations that were profitable on the basis of data transfer, or they decided to launch their own DePIN protocol.

The second-order effect of the above is the emergence of **cash-flow based credit** in the DePIN space. Projects like Metastreet (USD.ai) have built infrastructure to enable the tokenization and collateralization of DePIN nodes, starting with GPU miners on Aethir and enabling use cases like leveraged looping. Increasingly, we expect to see traditional lenders be willing to finance profitable DeWi miners directly. Combined with Helium's recently-announced $50m deployer grants program, and the US government's $42B BEAD program that was recently restructured to favor the type of low-cost fixed wireless tech used by DAWN, we are rapidly ending the era of DePIN deployers being financed primarily with equity capital. With larger and cheaper financing from credit markets and grants, DeWi is set for a resurgence of growth.

Another trend we got right was the **acceleration in the growth in fixed wireless ISP revenues**. The key unlock was the FCC's opening of the 6 GHz band for unlicensed WiFi in 2020 which is estimated to have created ~$1T of GDP over the past few years. With 6 GHz spectrum, ISPs can beam data point-to-point between two WiFi radios as far as 3-5 km apart at 1-2 Gbps speeds, and ultimately deliver competitive internet service to customers at 30-40% lower costs than incumbent cable- and fiber-based providers.[10] There is clear PMF for fixed wireless in the private markets: our portfolio company Andrena has grown wireless subscribers by almost an order of magnitude since we invested in 2022, meanwhile VC-backed radio manufacturer Tarana sold over $100m worth of its 6 GHz devices to ISPs in 2024. As mentioned above, even the US government is bullish on fixed wireless: Commerce Secretary Howard Lutnick recently announced that $42B of federal BEAD funding for wireless deployments would now need to consider fixed wireless as a competitive alternative, whereas the Biden administration had favored fiber. When you think about it from first principles, it's obvious why fixed wireless is better: why would we send electrical signals over (expensive, permanent) underground wires when we could send them over (cheap, ephemeral) radio links in the air? This logic has been true for years now, but the world is just catching up.

Another trend we called correctly was that **customers want to buy cheap connectivity from the brands and products they already know and trust**. In the past year, celebrities like Iggy Azalea, Jason Bateman, and even FC Barcelona and the Trump family launched mobile phone plans, alongside fintechs like Revolut, Nubank, Klarna, Wealthsimple, and N26 with a combined base of over 250 million users. We'll likely see retailers - Aldi, Carrefour, and Lidl are already headed in this direction - as well as maybe even media companies, employers, and airlines launch mobile plans. Extrapolating this behavior, we still think that - while we were early in calling the trend in 2022 - legacy telcos will inevitably see rising churn rates as consumers buy connectivity from other sources. That said, fintech history suggests we might be wrong: despite growing from zero to being used by virtually 100% of American adults over the past fifteen years, the rate of users switching their primary bank account hasn't meaningfully moved from 2011 to 2024 at roughly 8% per year. Like fintech, DeWi might expand the market more than it takes share.

---

[8] Even with a 90% reduction in revenues to $3/day (i.e., from pricing going from $0.50 → $0.05 per GB), the implied IRR is >750%.
[9] This was achieved primarily through HIPs 140, 135, 134, 133, 131, 130, 129, 125, 122, 119, and 118 over the past year.
[10] While we were more focused on the fresh CBRS spectrum back then, we should have been focused on 6 GHz WiFi.

What We Think Happens by Year-End 2026

Here are our five core predictions for DeWi over the next eighteen months:

1. **Helium Mobile reaches 1M subscribers**, rejects an acquisition offer from an incumbent telco, cableco or MVNO, and ends up raising a $50-100m round from web2 growth investors.

2. **Third-party offload reaches $20M ARR** serving 110 TB per day at the (subsidized) rate of $0.50/GB, which represents roughly 4x growth from today as telcos expand their rollouts.

3. **HNT somehow merges with Nova Labs equity** to become the sole asset of the Helium ecosystem, but HNT is forced to increase max supply by 10-20% to buy out shareholders.

4. **DAWN launches mainnet** on Solana, becoming recognized as the leader in DeWi fixed wireless. Despite market fears of a "diluted narrative", HNT price rips up after DAWN's successful launch.

5. **DAWN's black box launches and offers mining rewards from 10+ DePINs in parallel,** returning more than $5m of token rewards to the early cohort of miners.

And ten more, albeit arguably lower-conviction, predictions for the space:

6. **HNT changes its ticker** and/or redenominates HNT as its price rises, both to appeal to retail unit bias (i.e., to "$1 upside") and to "refresh" the HNT chart (i.e., similar to Maker rebranding to Sky).

7. **DAWN reaches 10M homes covered,** with ISPs from at least three different countries meaningfully contributing to the network's growth in their respective markets.

8. **Helium and DAWN represent >80% of DeWi market cap**, with the rest being split among World Mobile, Roam, Jambo, Dent, XNET, WiFi Map, Uplink, Karrier One, Dabba, Wayru.

9. **Inversion acquires an MVNO in an emerging market** and launches its mainnet with eight to nine figures of annualized subscriber revenues from day one.

10. **Helium launches third-party offload in at least three new countries**; revenue growth internationally outpaces the US and represents more than a third of total offload revenues.

11. **Telco subscriber churn increases by 50bps** as consumers begin to buy connectivity plans from the platforms - like fintechs - that they already use, or from new providers like Helium Mobile.

12. **Fintechs sell 1M eSIM plans globally** and generate >$100m ARR from wireless products in aggregate, in addition to increasing stickiness with their core user base.

13. **Cable stocks outperform telcos by >50%,** ending their current period of underperformance, in part because the market realizes they are better positioned in a world with DeWi, Starlink, etc.

14. **A major telco partners with Nvidia to design custom chips** based on Nvidia's existing AI-RAN products, primarily with the goal of seeing the market re-rate them closer to AI-like multiples.

15. **The Trump-appointed FCC shuts down CBRS** and repurposes the spectrum for licensed use, giving in to pressure from telco lobbyists, while also increasing the pace of spectrum sales.