HealthBlocks: The Era of User-Owned Health Data

Introduction

Health data is the most valuable dataset on the planet, but also the least protected.

Every year, millions of personal records are exposed, from the most sensitive medical information to the most trivial details of daily life.

The platforms that capture it operate in a black box. All of your health data is recorded, but what happens next is outside your control. Some of it is shared, some of it is sold, and most of it will end up training proprietary models for companies whose incentives have nothing to do with your health.

And yet these same signals could form the foundation of preventative health, a continuous record that predicts risks earlier and improves wellbeing.

Instead, they sit locked away in corporate silos, monetized everywhere but for the person who generated them.

HealthBlocks was created to change that.

It's the user-owned health data layer, a decentralized foundation where your health profile is private and fully under your control. Data from wearables, biomarker scans, and connected apps is stored across **Nillion's infrastructure** and can be processed without ever being exposed.

For the first time, health data doesn't have to be a liability. With HealthBlocks, it becomes the foundation for prevention, personalization, and a new model of healthcare where the individual holds the keys.

The Breach Economy of Healthcare.

Healthcare has become one of the most consistently hacked industries in the world.

In **2024**, more than **276 million patient records** were exposed in U.S. breaches.

A single attack on **UnitedHealth** compromised the data of nearly **192 million people**, the largest health data breach in history
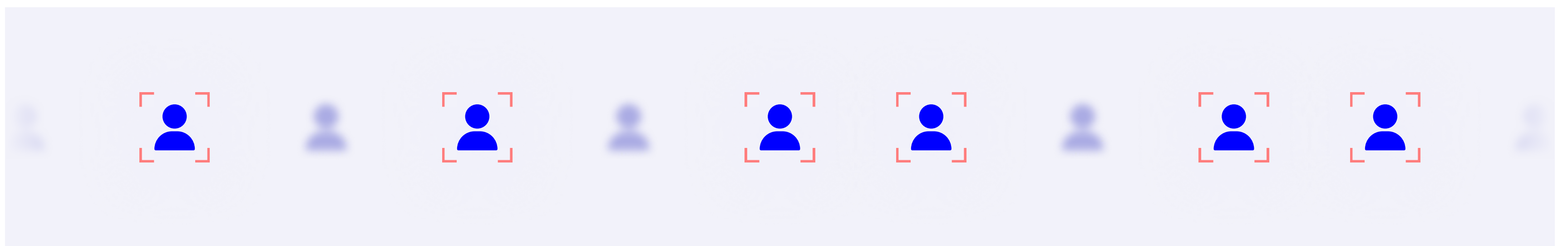
These breaches aren't limited to exposing a patient's name and contact details, it exposes the most personal information they carry with them: prescriptions, diagnoses, even genetic tests.

Unlike a password, this kind of data can't be reset once it's stolen and that's what makes health data so valuable.

On black markets it sells for more than financial records because it can be used in more ways, from identity theft to insurance fraud to long-term discrimination.

For companies, it's just as attractive, as it constitutes valuable data to train models and feed targeted advertising.

The result is a growing **breach economy**, where the world's most sensitive data circulates through some of its weakest systems. Patients are told their data is secure, yet every year the leaks get bigger.

Breaches prove one thing: centralized systems will never keep health data safe.

The next era belongs to those who take it back.

HealthBlocks: The User-Owned Health Data Layer.

HealthBlocks is built on a simple but radical shift: **health data should align fully with the person it comes from, and stay that way.**
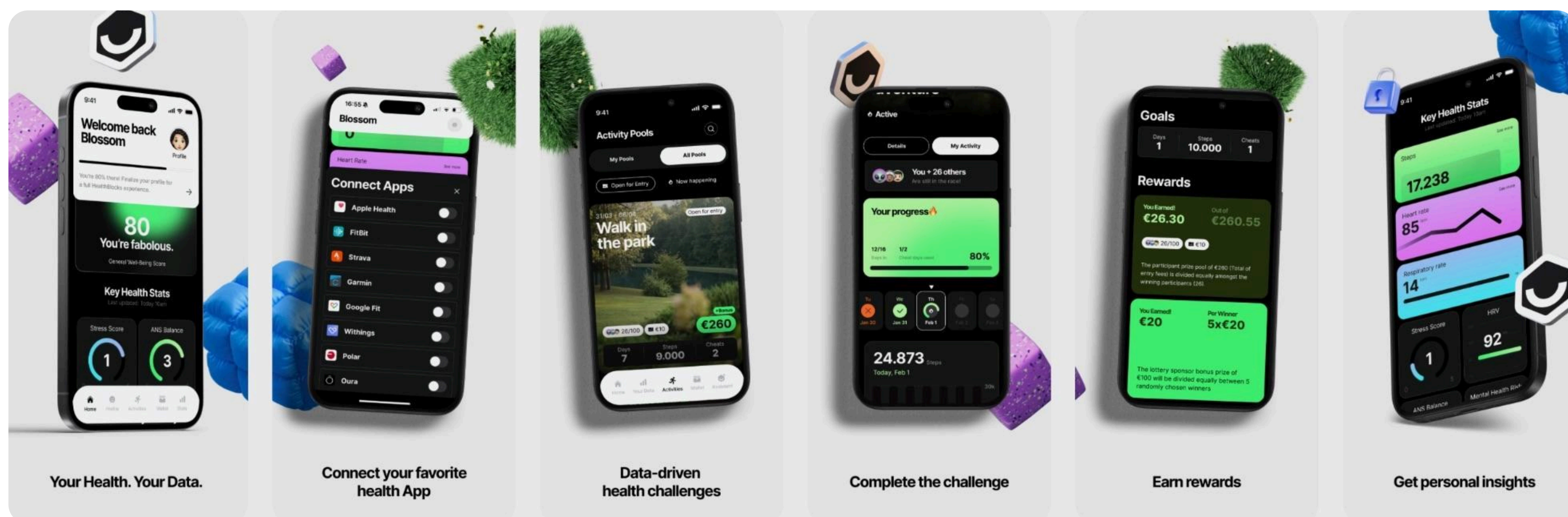
That shift begins with the people it's built for.

Today's health apps largely serve the **5%** already obsessed with optimization, like the athletes, biohackers, and quantified-self crowd who know how to track every variable. For the other **95%**, the majority who want to live healthier but struggle to find direction, most apps don't work.

HealthBlocks is designed for the rest of us.

It provides adaptive goals and gamified challenges that make health engaging and rewarding rather than overwhelming.

HealthBlocks is already proving it in practice. The activity pools on the app consistently see completion rates above **79%**, compared to less than **20%** in typical fitness apps.

Your Health. Your Data.

Connect your favorite health App

Data-driven health challenges

Complete the challenge

Earn rewards

Get personal insights

But motivation is only one side of the problem, the real issue is ownership. In existing systems health data doesn't stay with the person who generates it. Once captured, it's absorbed into platforms where ownership is lost and decisions about its use are made elsewhere. Whether it trains models, fuels advertising, or gets packaged into third-party deals, the individual often remains outside the loop and doesn't benefit from their own data.

HealthBlocks closes that gap by embedding ownership directly into the foundation of the system. Every signal feeds into a record designed to stay with the person who generated it.

And that raises the key question: **how is this ownership enforced?**

Under the Hood of HealthBlocks.

The Architecture of Trust.

Behind the dashboard and pools is an architecture designed to do one thing above all else, protect user data while keeping it useful.

From the moment information enters HealthBlocks, it's encrypted and split into fragments that are stored across **nilDB, Nillion's decentralized network.**

No single party holds the full record, and not even the nodes maintaining the system can see what they store. This ensures that ownership is enforced at the infrastructure layer.

When insights are generated in the app, they don't come from exposing raw data. Computation happens directly on hidden data through **Nillion's Blind Compute.**

Algorithms can process stress markers, readiness scores, or long-term recovery trends without the underlying health record ever being revealed. The results flow back to the user, but the source data remains sealed.

Every step is protected by cryptographic proofs.

They verify that computations are correct, that privacy has been preserved, and that the health record has not been tampered with along the way.
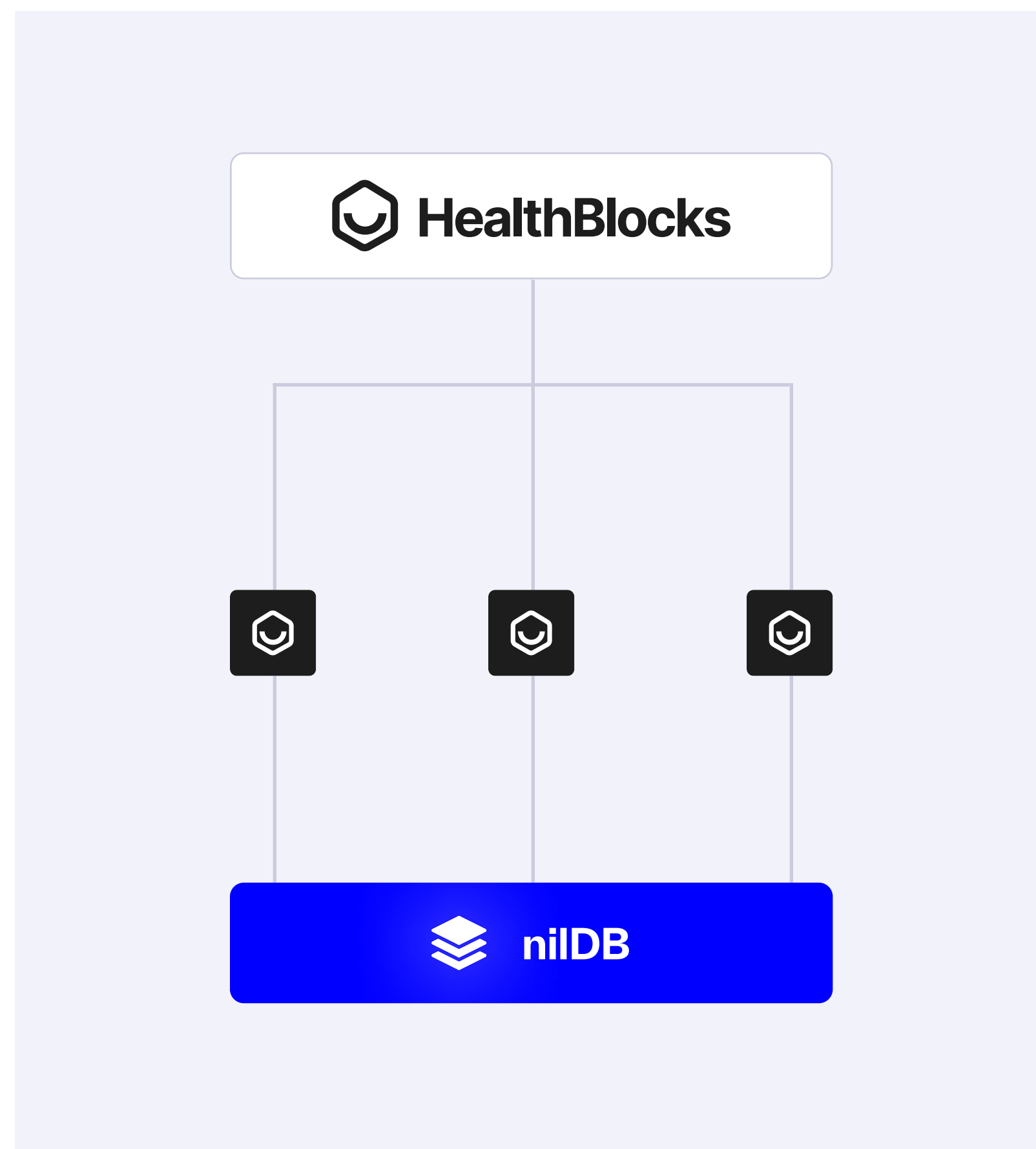
Instead of asking users to trust a platform, HealthBlocks provides verifiable guarantees by building on Nillion.

It proves data can be both private and useful. The next step is seeing how that principle comes alive for the user, from the moment they create a profile to the rewards they unlock.

HealthBlocks in Action.
Turning Health Data Into Value.

Owning your health data isn't abstract. On HealthBlocks, it begins the moment you create your profile.

From there, you can connect the devices you already use like wearables or apps that monitor your health. Each data point flows into your encrypted profile, secured across Nillion's infrastructure.

Once connected, HealthBlocks turns that raw stream into something you can actually see and use. A personal dashboard brings together your core stats in real time like steps, heart rate, respiratory rate, HRV, stress levels, even advanced markers like autonomic balance and breathing scores.

Instead of fragments locked across different apps, HealthBlocks unifies it all into one record you control. **And that's where the benefits begin.**


WALK TO EARN ACTIVITY POOLS

Walking is the most basic, universal health habit, and plenty of apps have tried to turn it into rewards. But most were built on speculation instead of sustainability.

On HealthBlocks your activity turns into rewards. Through their unique activity pools, daily movement becomes a shared, provable challenge.

Each Activity Pool comes with a daily step goal. Participants commit, and those who hit the target unlock tangible rewards while meeting their health goals.

Since its mainnet launch in April 2025, over **226 pools have been created**, distributing more than **€15,000 in rewards** to participants. What was once just movement is now measurable value, consistency fuels not only better health but also real-world outcomes.

nillion / ⬡ HealthBlocks
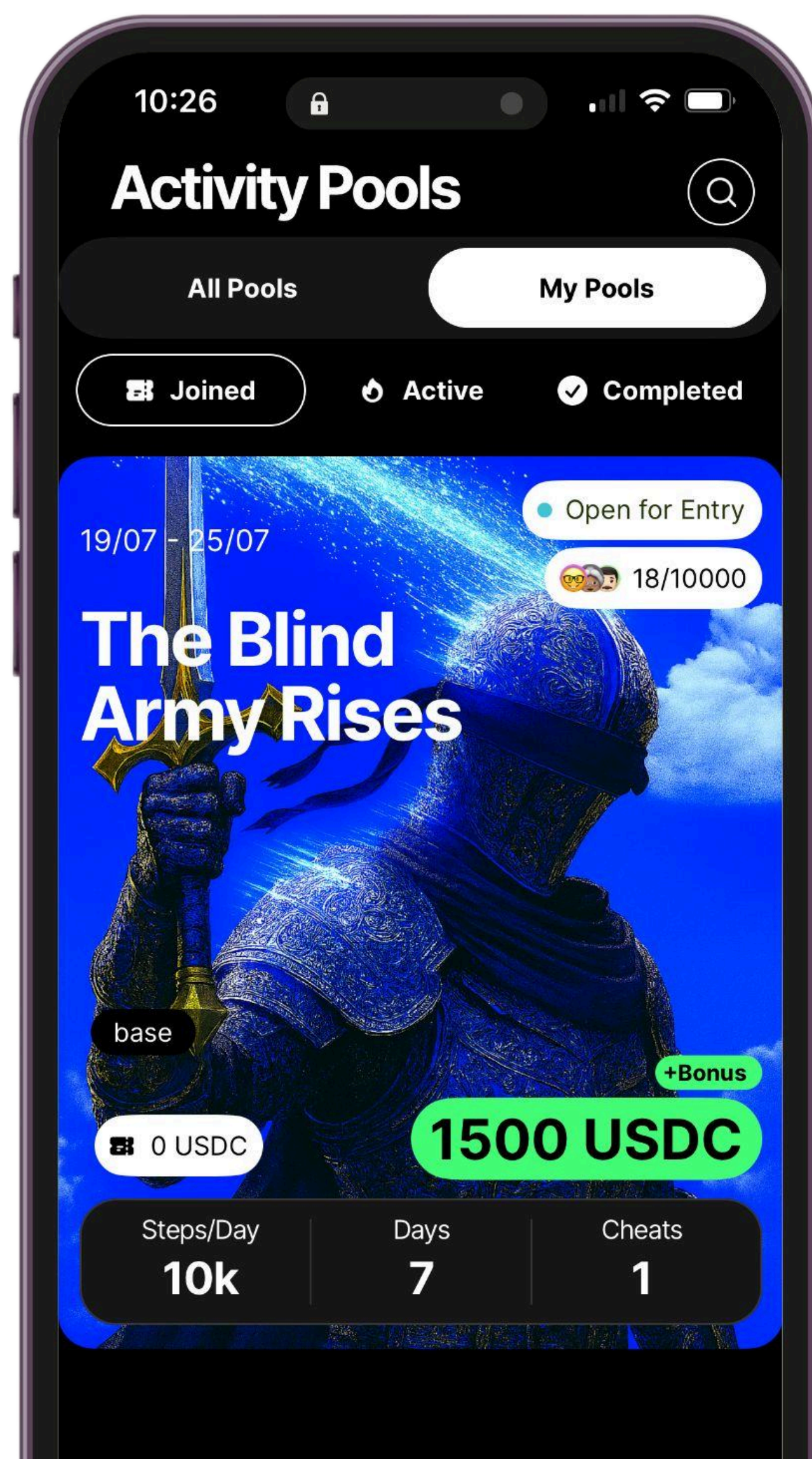
WIDE VARIETY OF WEARABLES TO CONNECT

Health data today is scattered, each device builds a partial story but the full picture never comes together.

HealthBlocks unifies it by allowing users to connect different apps. Whether it's **Apple Health, Fitbit, Oura, Garmin**, or other wearables, every data stream flows into a single encrypted profile. For the first time, a user doesn't just track fragments, they own the whole record.

That record becomes the foundation for insights, gamification, and rewards, all while the user holds full control over their data.


PERSONALIZED INSIGHTS ON THE GO

Most apps can count steps or log hours of sleep but few can tell how ready your body and mind are to take on the day.

HealthBlocks introduces a simple scan: look into your camera, and the system reads markers that wearables alone can't capture. In seconds, users receive a readiness score, stress index, and heart-rate reading, all anchored to their unique profile.

What makes this powerful isn't just the individual numbers but the way they come together. Stress is read against sleep patterns, readiness against training history, recovery against long-term trends. Instead of isolated metrics, users see a living picture of their health, one they can actually act on.
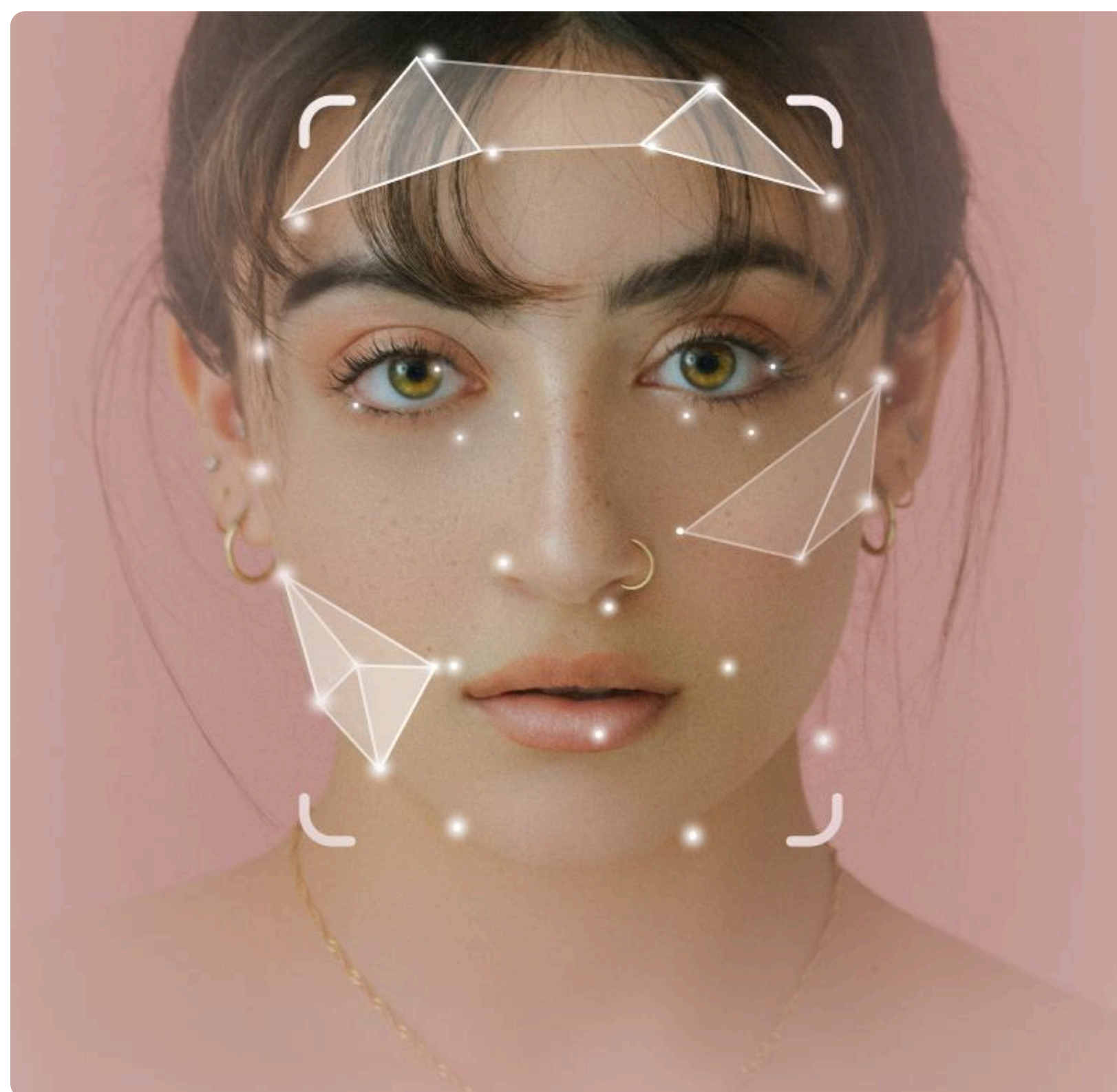
All the data is fed into one encrypted profile that belongs to the user alone. It's a health record anchored in infrastructure where no third party can see or sell it without the user's consent.

That shift changes the role of data entirely. Instead of it getting extracted and monetized elsewhere, it becomes an asset the individual commands. A foundation for personalization, and for a new kind of healthcare where control doesn't leave users' hands.
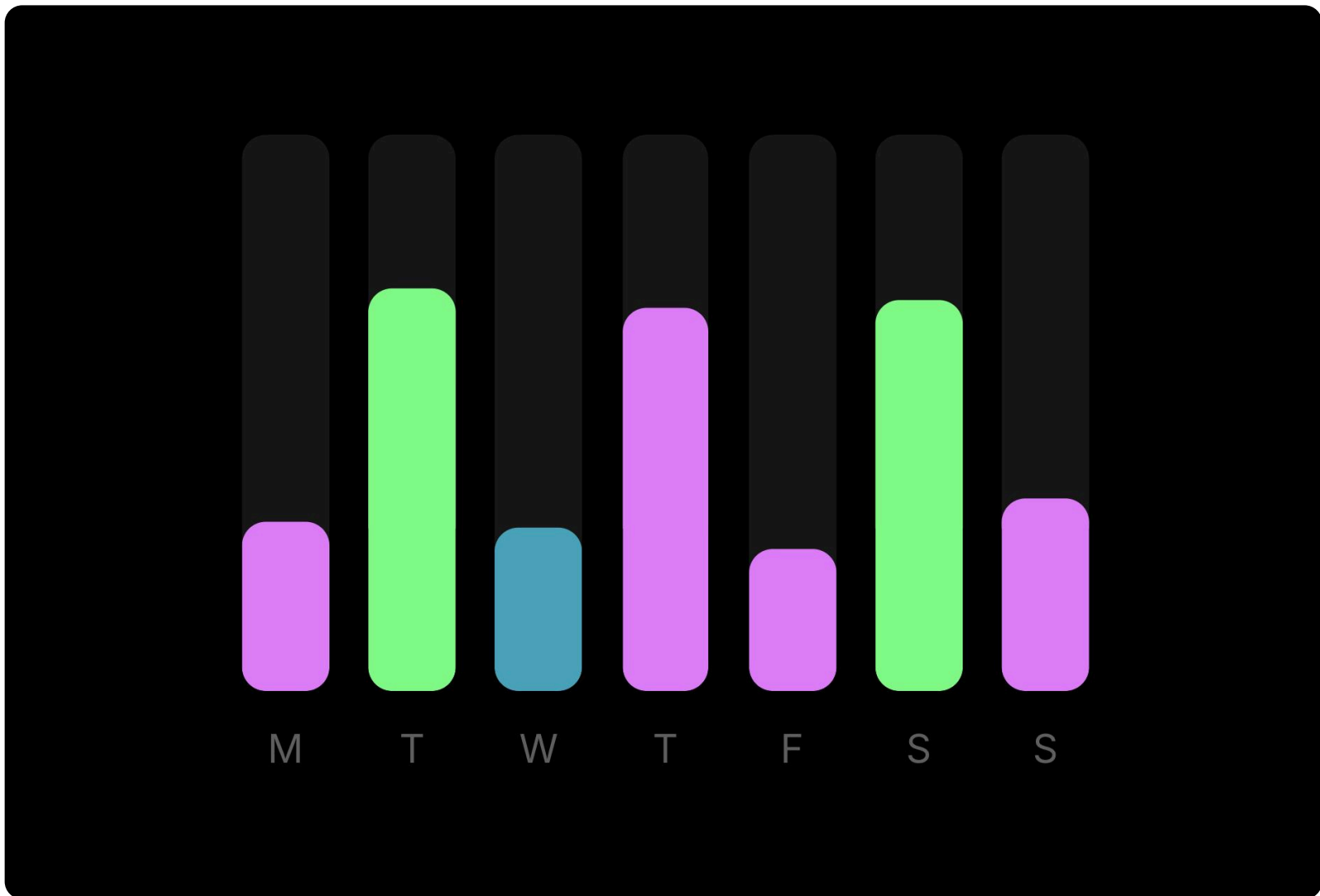
ONE APP WITH MANY USE CASES

Most health platforms wall themselves off, running closed systems that only large sponsors can access. HealthBlocks takes the opposite approach: open participation anchored in privacy.

That design makes it useful not just for individuals but also for organizations and communities. In its first months, HealthBlocks has already powered corporate wellness programs, branded campaigns, and research studies.

Corporate Wellbeing: Employers are launching private Activity Pools where teams earn rewards together and compete for pooled prizes. For companies, it's a new way to build culture and meet ESG goals while giving employees real value back for healthier habits.

Brands & Campaigns: Activity Pools can be adapted into branded challenges, where companies tie rewards directly to their products or services. Instead of passive ads, participation becomes an active touchpoint, with early campaigns already showing higher engagement and stronger conversions than traditional social media.

Research and Life Sciences: With data breaches proving how sensitive health information is, researchers are turning to HealthBlocks as a secure alternative. The platform is already included in multiple grant projects, and one of Europe's largest pharmaceutical firms is exploring it as a scalable base for preventative health research.

The Road Ahead.

From App to Health Ecosystem.

HealthBlocks began by gamifying the health journey. The next step is scaling it by introducing an AI health assistant, premium access for deeper engagement, and partnerships that connect entire communities. What started as a way to walk and earn is now evolving into a platform where health data fuels collective wellbeing.

Here's what lies ahead:

AI HEALTH ASSISTANT: JANE

Jane is HealthBlocks' private health assistant. Unlike generic chatbots, she draws directly from your encrypted health profile to give guidance that actually fits your body.

Built to run on **nilAI**, Nillion's privacy-preserving inference layer, Jane will be able to process sensitive health data without ever exposing it. That means the same system that protects your health data also safeguards the personalized guidance built on top of them.

Over time, Jane adapts as your health data evolves, offering tailored support that grows with you.

PREMIUM ACCESS FOR POWER USERS

Down the line, HealthBlocks also plans to introduce a premium tier.

A monthly subscription unlocks unlimited participation in activity pools, the ability to host your own challenges, and direct access to Jane's advanced features.

The premium tier is built for those who want to turn everyday effort into a structured path toward long-term health.

EARN BACK WITH YOUR DATA

HealthBlocks isn't limited to rewarding movement. The roadmap extends that model to data itself, making it possible for users to earn when their encrypted health records are shared, always on a private, case-by-case basis.

If data is called, the individual owns their share of the value. What was once traded away without consent now becomes part of the health economy, with benefits flowing back to the person who generated it.

How to Join HealthBlocks

HealthBlocks is already up and running, with users earning rewards for everyday movement.

Anyone can download the app, connect their wearables, and begin building a health profile that stays fully under their control.

The upcoming **Nillion vs Monad Activity Pool** marks the next major activation, bringing both communities into a shared challenge. If you have been looking to adapt to a healthier lifestyle while getting rewarded, the time is now.
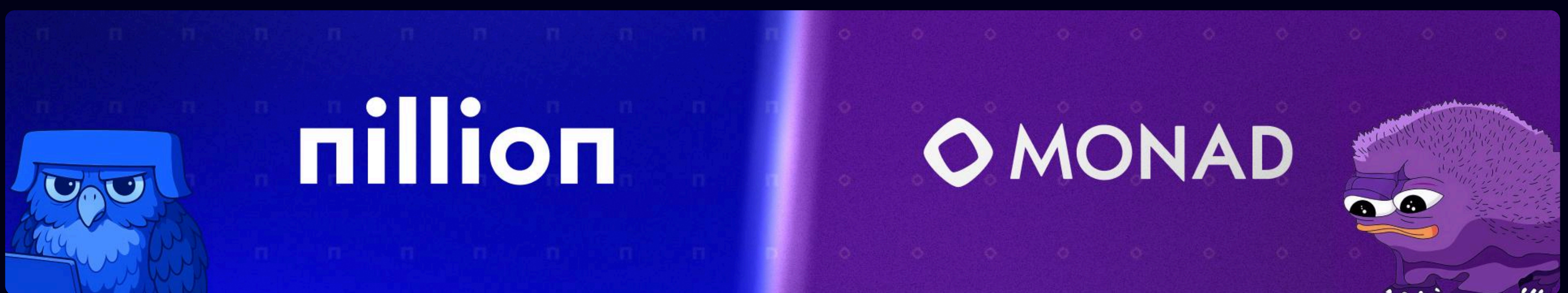
HERE'S HOW TO GET STARTED:

- **Download the HealthBlocks app** - on iOS / on Android

- **Connect your device** - Apple Health, Fitbit, Oura, Garmin, or other wearables all sync seamlessly.

- **Pick your side** - Join the Nillion Pool or the Monad Pool and start walking.

- **Earn as you move** - Complete the daily challenge of 10,000 steps and turn your steps into rewards.

THE FUTURE OF HEALTH IS GAMIFIED

You can keep feeding apps that take your data and give you nothing in return.

Or you can enter a system where every challenge fuels rewards and your data finally works for you.

HealthBlocks isn't another fitness app.
It's the new era where your health and data benefit you.