

# Humanoid Healthcare: a Connected Ecosystem



Andy Squire, Basel, July 2025

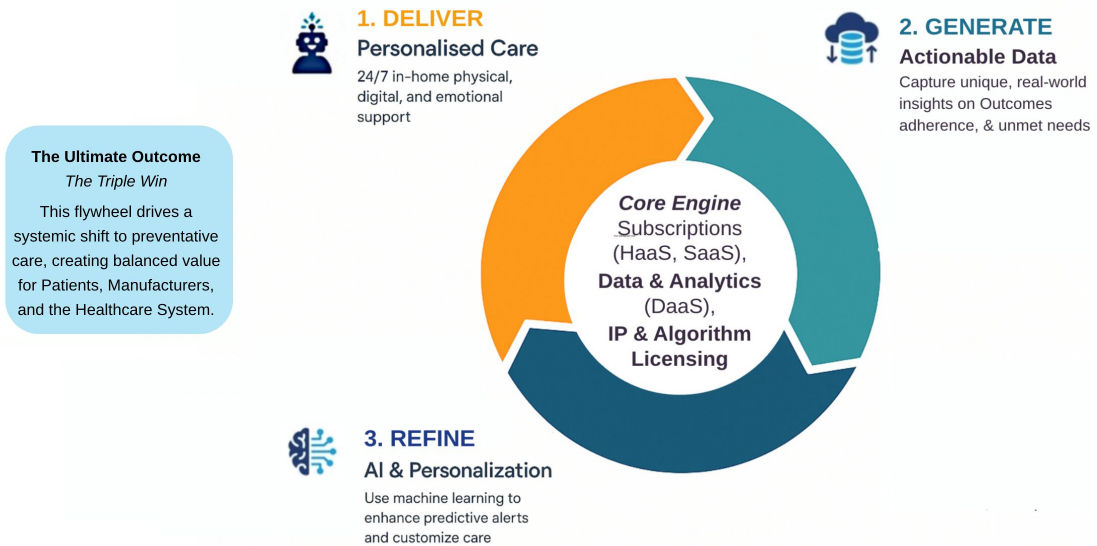
Good morning/afternoon. Today, we're going to talk about the future of healthcare, which is arriving faster than we think.

As we all know, our current healthcare system is at a breaking point. We face a critical and growing **shortage of caregivers**, especially for our aging population who need support at home. The **costs** of the current hospital-centric model are becoming unsustainable. And most importantly, there's a massive **personalized care gap**—a lack of 24/7, tailored support that can proactively keep people healthy.

The image you see here isn't science fiction anymore. It represents the convergence of three powerful forces—humanoid robotics, augmented reality, and AI-driven data exchange—that together, create an entirely new, connected ecosystem for preventative healthcare.

## Our Data-Driven Flywheel

From Personalised Care to Predictive / Preventative Medicine



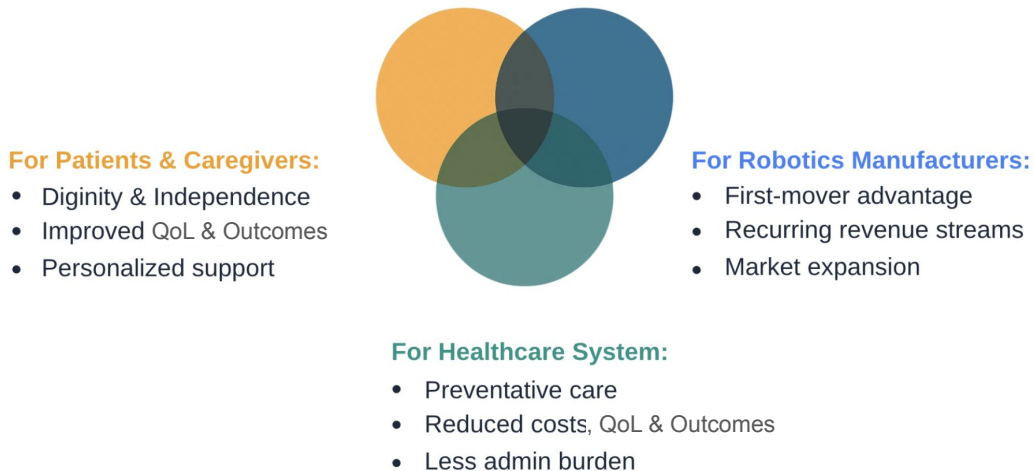
Our solution is built on a powerful, data-driven flywheel. It's a simple, three-step process: We **DELIVER** personalized care in the home, which allows us to **GENERATE** unique, real-world data. We then use AI to **REFINE** that data into predictive insights, which in turn allows us to deliver even better, more personalized care. Each cycle makes the system smarter.

Now, you might be thinking this sounds incredibly expensive. And in the past, it was. But what unlocks this flywheel *today* is a fundamental market shift: **the commoditization of advanced humanoid hardware**. With incredible platforms like the Unitree R1 now available for \$5,900, the barrier to entry has collapsed.

This allows us to focus on what truly matters: the **Core Engine**. Our value, our intellectual property, and our business moat are not in building the robot; they are in the **SaaS, DaaS, and IP Licensing** of the AI brain that powers it.

## Triple Win Value to improve Patient Outcomes & Healthcare Sustainability

Patients/Caregivers - Healthcare System/Doctors - Robotics Manufacturers



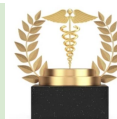
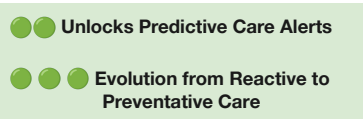
This software-first, hardware-agnostic model creates a 'Triple Win' for the entire ecosystem.

- **For Patients & Families**, it means empowerment. It delivers the dignity of independence at home, reduces the stress on caregivers, and leads to measurably better health outcomes.
- **For Healthcare Providers and the System**, it drives a monumental shift from reactive to preventative care. Real-time monitoring and predictive alerts increase efficiency, lower long-term costs, and provide a scalable solution to address health equity.
- **And for us, the Robotics Manufacturer and Orchestrator**, this model provides recurring software revenue streams. More importantly, it positions us as the trusted leader of a next-generation health platform, moving beyond simple hardware to become the central nervous system of a new market.

## The Ultimate Outcome: Transforming Healthcare

### Unlock AI driven Predictive Care Alerts & Evolution towards Preventative Care

Barrier (The Challenge)	Our Solution (The "How")	Driver (The "Why")
● <b>Data Security &amp; Privacy</b>	Centralized governance with <b>HIPAA, HITECH, &amp; GDPR</b> compliance. End-to-end encryption.	● Builds patient and caregiver trust through transparent and secure data handling, encouraging confident participation in their own care
● <b>System Reliability &amp; Technical Failures</b>	<b>Cloud-native architecture</b> (AWS/Azure/GCP) for high availability. Rigorous <b>Testing &amp; Monitoring</b>	● Provides peace of mind with reliable, uninterrupted 24/7 care, creating a foundation of trust and safety for patients at home
● <b>Interoperability</b>	Built on modern standards like <b>HL7 FHIR</b> for seamless <b>API integration</b> with <b>EHRs</b> and <b>3rd party apps</b> . <b>TOGAF</b> Enterprise Architecture.	● Delivers a seamless and unified care experience for the patient, ensuring their entire care team is connected and informed
● <b>Resource Priorities &amp; Cost</b>	Platform-first model ( <b>SaaS, DaaS</b> ) leveraging commoditized hardware ( <b>HaaS</b> ) to lower capital investment. Data ( <b>DaaS</b> ) & <b>IP &amp; Algorithm Licensing</b>	● Unlocks <b>New Revenue Streams</b> , to help fund upfront investment Enables a sustainable model that reinvests in better technology and services directly benefiting patients and their long-term care
● <b>Regulatory &amp; Compliance</b>	Rigorous <b>SaMD</b> (Software as a Medical Device) <b>validation, QMS, &amp; post-market surveillance</b> .	● Ensures patient <b>safety</b> and enables <b>market access &amp; reimbursement</b> to ensure the highest quality of care and support.
● <b>User Adoption &amp; Trust</b>	<b>Human-centric design, ethics &amp; consent training</b> , and demonstrating clear, tangible value for patients and HCPs.	● Leads to a <b>virtuous cycle</b> of engagement, data generation, <b>improved outcomes</b> .



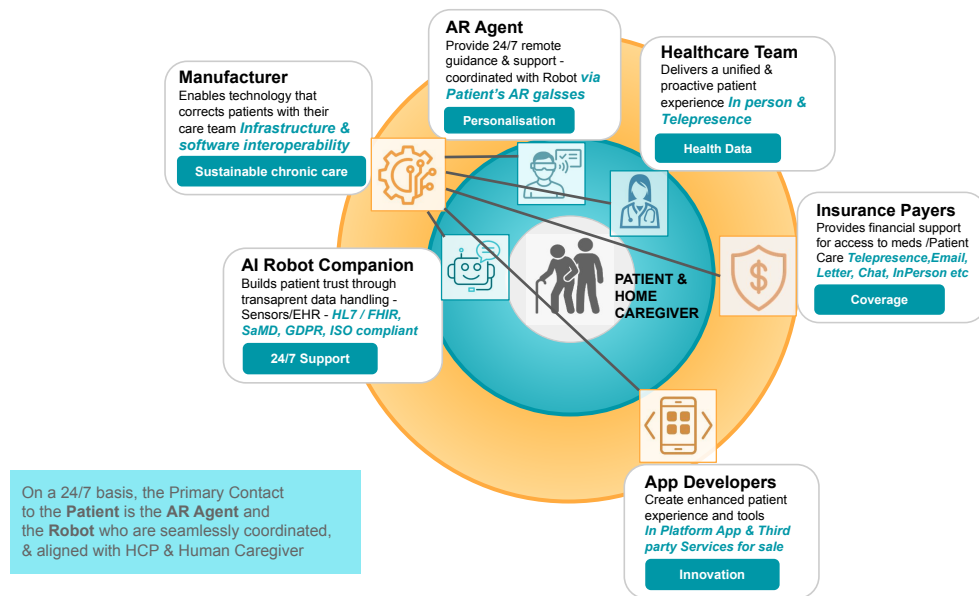
Of course, transforming healthcare isn't without its challenges. We've built our model to address them head-on.

We handle **Data Security** and **Reliability** with centralized governance and a cloud-native architecture. We ensure **Interoperability** by building on modern standards like HL7 FHIR and TOGAF principles. We meet **Regulatory & Compliance Hurdles** with a rigorous SaMD validation process. And we drive **User Adoption** through human-centric design.

But the most critical barrier is **Cost**. Our biggest strategic advantage is our business model. By building our platform to run on increasingly affordable hardware, we sidestep the massive capital expenditure of traditional robotics. Our investment is focused on the high-margin, infinitely scalable asset: our AI engine and software platform

## A Patient-centric Care Ecosystem (Business view)

The Manufacturer orchestrates Patient Empowerment & Independence



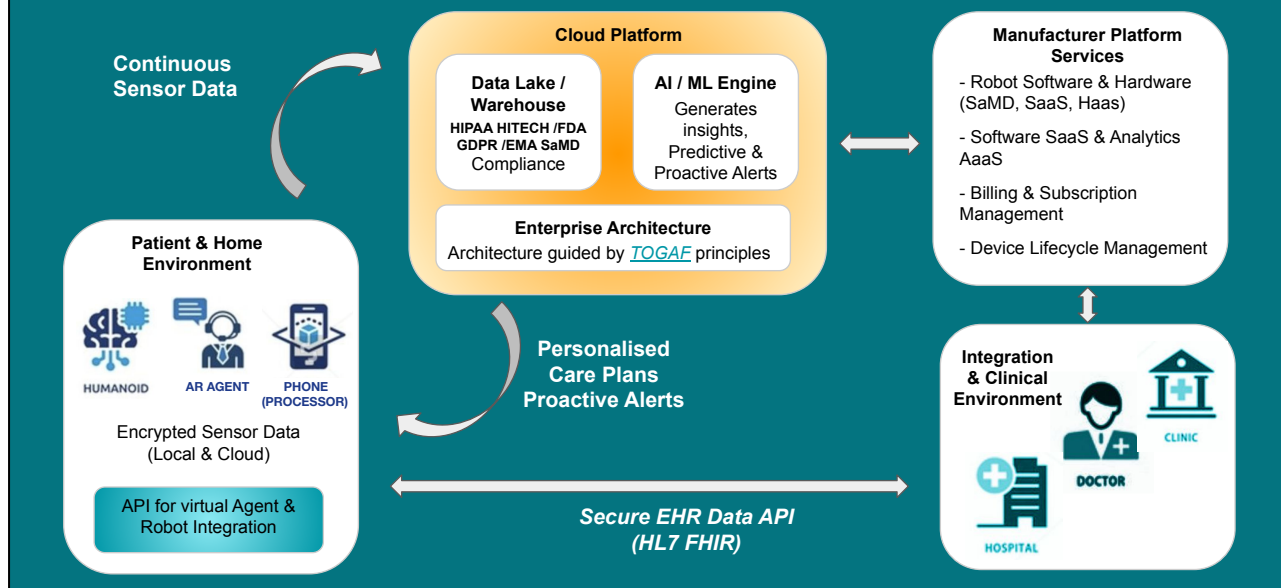
This is how the ecosystem fits together. As you can see, the **Patient and their Home Caregiver are at the absolute center of everything we do.**

Our role, as the manufacturer, is to be the **Orchestrator** of this ecosystem—the orange layer that enables and connects all the other players. We are not just a robotics company; we are the central nervous system providing the core platform, the AI, and the secure integrations.

We connect the patient's immediate care team—the AI Companion, the remote AR Agent, and the human Healthcare Team—and create a standardized way for crucial partners like **Insurers** and **App Developers** to add value. It's a truly extensible and collaborative system where the value is shared by everyone, but always flows to the patient

## A Scalable IT Architecture for Patient-centric Care

Built on Enterprise-grade TOGAF Principles for Security, Interoperability at Scale



Finally, here is the technical foundation that makes our vision a reality. This isn't just a business idea; it's a well-architected, scalable system.

It all starts with **Continuous Sensor Data** captured securely in the patient's home. That encrypted data flows to our **Cloud Platform**, built on enterprise-grade services like AWS or Azure.

In the cloud, our **AI/ML engine** analyzes this data, generating predictive alerts and personalized care plans. These insights are then delivered through our **Manufacturer Platform Services** and integrated seamlessly with the **Clinical Environment** via secure APIs like HL7 FHIR.

Most importantly, this creates an intelligent loop. The insights flow back to personalize the patient's care, empowering their independence. This architecture, guided by **TOGAF principles**, is designed for security, scalability, and the interoperability required to become the de facto standard for the future of humanoid healthcare.