

 **FieldHealth**

Care, where it's needed most.

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Business Plan

SLC 2025-2026

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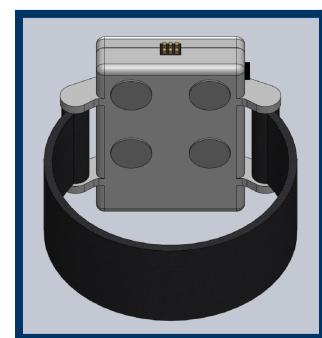
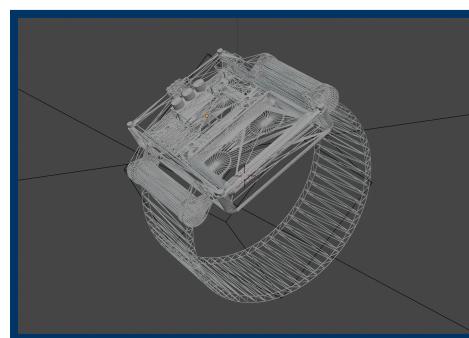
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1 Executive Summary

FieldHealth is a humanitarian medical-technology institution that designs field-ready **sensing** and **analytics systems** to enable earlier intervention and smarter resource allocation in **conflict zones** and **low-resource environments**. Operating at the intersection of global health, humanitarian response, and digital infrastructure, the company addresses a core failure in public health delivery: the inability to detect nutrition and health risks early where laboratories, connectivity, and trained personnel are limited.

The scale of the challenge is severe. Globally, **150.2 million children under five are stunted and 42.8 million are wasted, while 181 million children live in severe food poverty**, dramatically increasing their risk of life-threatening malnutrition (UNICEF/WHO/World Bank). Malnutrition contributes to approximately **45%** of deaths among children under five. These pressures are compounded by a broader humanitarian crisis: in 2024, over 295 million people across 53 countries faced acute food insecurity, with 2.3 billion experiencing moderate or severe food insecurity worldwide (FAO, UN). Despite major investments, frontline screening remains slow, labor-intensive, and difficult to scale, relying heavily on anthropometric measurements and laboratory testing.

FieldHealth addresses this gap through a systems-first platform that integrates edge sensing with offline-first analytics, bridging frontline data collection and **strategic humanitarian decision-making**. Its innovation is built around a two-pillar, pilot-driven proof-of-concept strategy. Pillar I (Edge Sensing Systems) centers on **NutriBand**, a non-invasive, short-wear wristband that rapidly captures physiological indicators of nutrition and hydration risk without needles, laboratories, or continuous connectivity.





Pillar II (Field Intelligence Systems) is delivered through **FieldVitals Hub**, an offline-first software platform that aggregates screening results and basic vitals to generate actionable population-level insights. Together, these pillars create a scalable architecture for early detection, triage, and evidence-based targeting of humanitarian resources.

Market entry begins with tightly scoped pilot deployments with 2–3 innovation-oriented NGOs in Sub-Saharan Africa and the Middle East & North Africa, generating clinical validation and operational evidence for expansion through United Nations procurement frameworks and multilateral partnerships. Over five years, FieldHealth targets 25–30 institutional partners and more than 500,000 annual screenings, expanding into government public-health systems and large-scale nutrition programs.



T	Row ID	Name	Description
1	pgm-001	Health Equity Program	Promote health equity and improve health outcomes among marginalized comm
2	pgm-002	Maternal and Child Health Program	Improve maternal and child health outcomes through antenatal care, skilled deliv
3	pgm-003	TB Control Program	Detect, treat, and prevent TB among high-risk populations.
4	pgm-004	HIV Prevention Program	Prevent new HIV infections through awareness, testing, and linkage to care serv
5	pgm-005	Malaria Control Program	Control malaria transmission through indoor residual spraying, larval control, and
6	pgm-006	Family Planning Program	Increase access to family planning services and modern contraceptive methods
7	pgm-007	Nutrition Program	Improve nutrition outcomes among vulnerable populations through food security
8	pgm-008	Reproductive Health Program	Promote reproductive health and rights through access to quality health service
9	pgm-009	Child Protection Program	Prevent and respond to child abuse and exploitation through awareness, reportin
10	pgm-010	Disaster Risk Reduction Program	Reduce disaster risk and vulnerability through preparedness, mitigation, and res

By prioritizing early detection, offline functionality, and decision-centric system design, FieldHealth introduces a new infrastructure layer into humanitarian healthcare, transforming **scattered frontline data into actionable intelligence and enabling faster intervention**, smarter targeting, and measurable improvements in health outcomes for vulnerable populations worldwide.

2 Company Profile

2.1 Legal Structure of Business

FieldHealth will operate as a **Limited Liability Company (LLC)**. This legal structure provides liability protection for the founders while maintaining the operational flexibility required to collaborate with nonprofit organizations, government agencies, and global health partners. The LLC model also supports future scalability as the company pursues grants, strategic partnerships, and potential investment.

2.2 Effective Date of Business

FieldHealth is projected to be established in **2026** as a humanitarian health-technology startup focused on improving healthcare accessibility in low-resource and disaster-affected environments.

2.3 Mission & Vision Statement

Mission

FieldHealth's mission is to improve health outcomes in underserved regions by delivering accessible, data-driven medical technology that enables early detection, monitoring, and prevention of health crises.

Vision

FieldHealth aims to become a global leader in offline-first health intelligence, empowering organizations to make faster decisions that protect vulnerable populations and strengthen global health resilience.

2.4 Company Governance & Ethical Framework

FieldHealth is built upon a commitment to ethical technology, data privacy, and humanitarian responsibility. The company will follow internationally recognized data protection standards and prioritize partnerships with reputable NGOs, governments, and health agencies. All product development and deployment decisions will be guided by the principles of accessibility, transparency, and responsible data use, *ensuring technology serves communities safely and equitably*.

2.5 Immediate Development Goals

During its initial phase, FieldHealth will focus on:

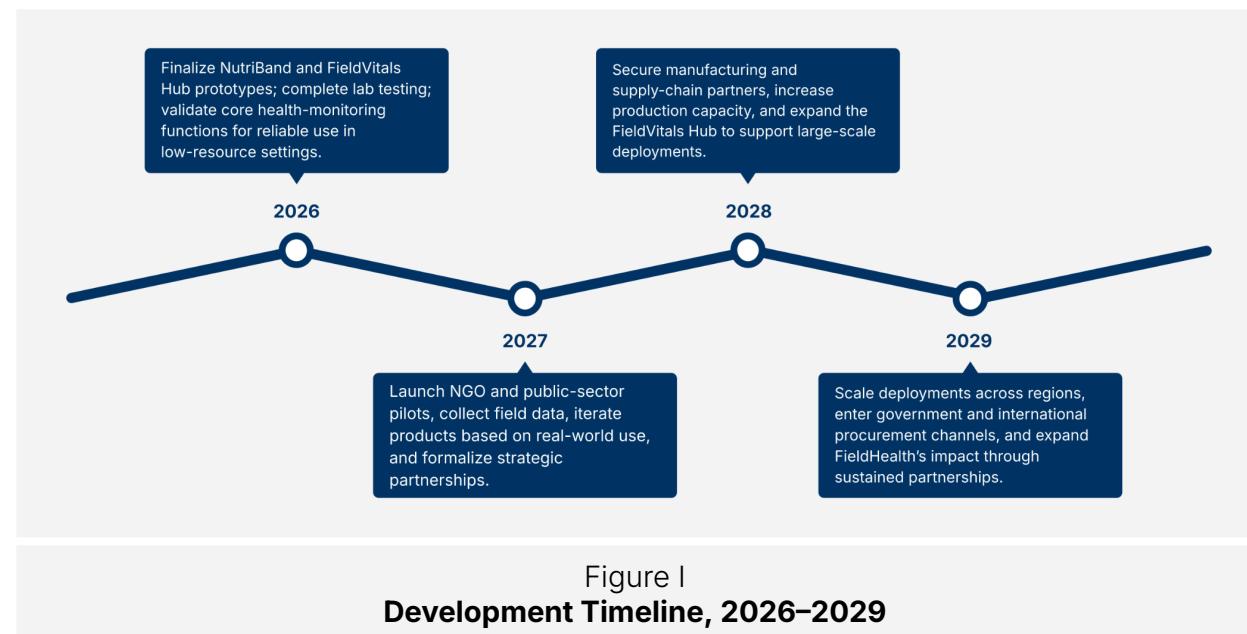


Figure I
Development Timeline, 2026–2029

2.6 Current Financial Status & Funding Strategy

FieldHealth is currently in the early startup stage and is seeking seed funding, grants, and strategic partnerships to support product development, pilot testing, and operational expansion. The company will pursue a blended funding strategy that combines mission-aligned investment with public and nonprofit funding opportunities common in the global health sector.

2.7 Company Location & Global Operating Model

FieldHealth will operate as a U.S.-based company with a global deployment model, collaborating with international NGOs, governments, and relief organizations. This distributed approach allows FieldHealth to develop technology domestically while delivering solutions to regions where healthcare infrastructure is limited or unreliable.

3 Industry Analysis

3.1 Overview of Industry

The global health and humanitarian technology industry focuses on delivering medical solutions in low-resource, crisis-affected environments where traditional healthcare infrastructure is limited or unavailable.

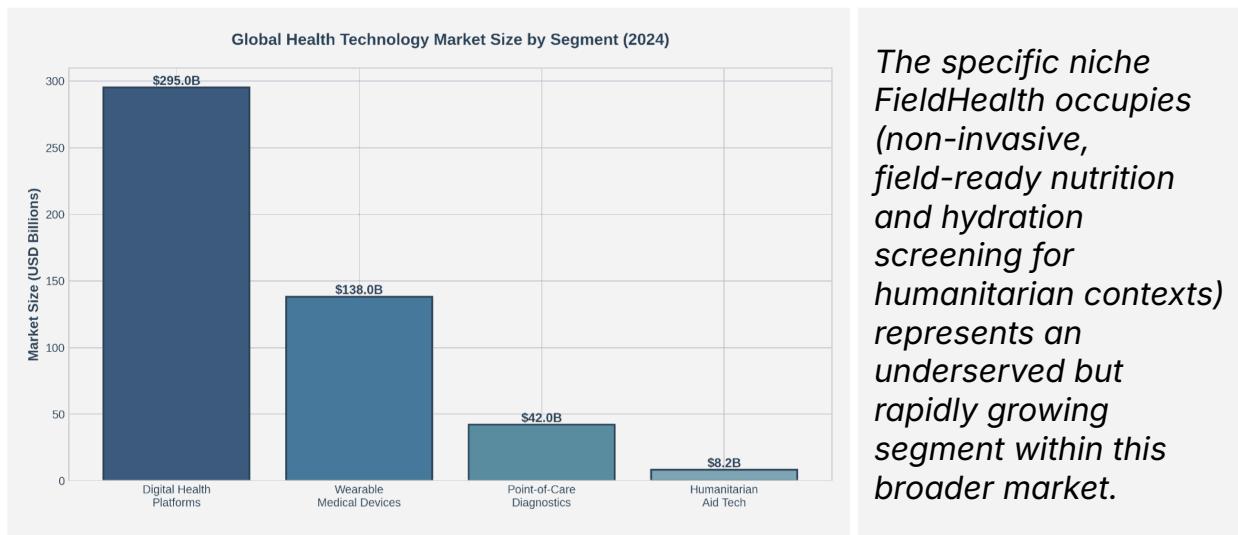
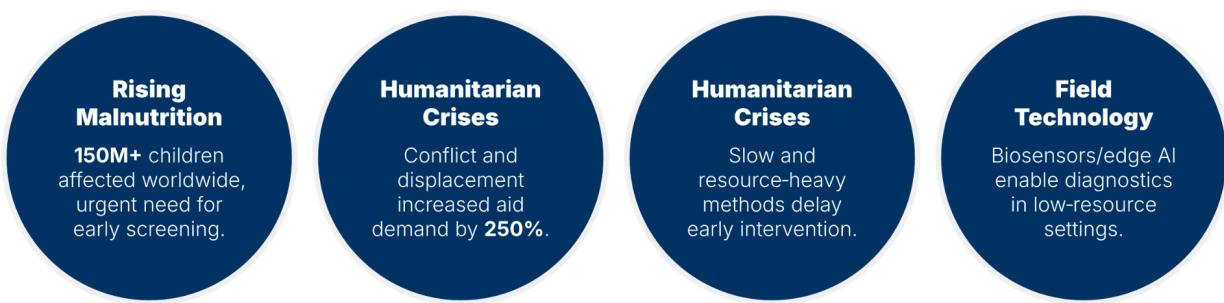


Figure II
Global Health Technology Market Size by Segment ([Grand View Research, 2024](#))

3.2 Key Industry Drivers

These four forces define the core drivers shaping the global humanitarian health-technology landscape and directly inform FieldHealth's strategic focus, highlighting the urgent need for scalable, data-driven solutions in low-resource environments.



4 Target Market

FieldHealth targets institutional partners that fund and deliver large-scale nutrition programs in crisis and low-resource settings, using existing field infrastructure to scale technology-enabled screening and data.

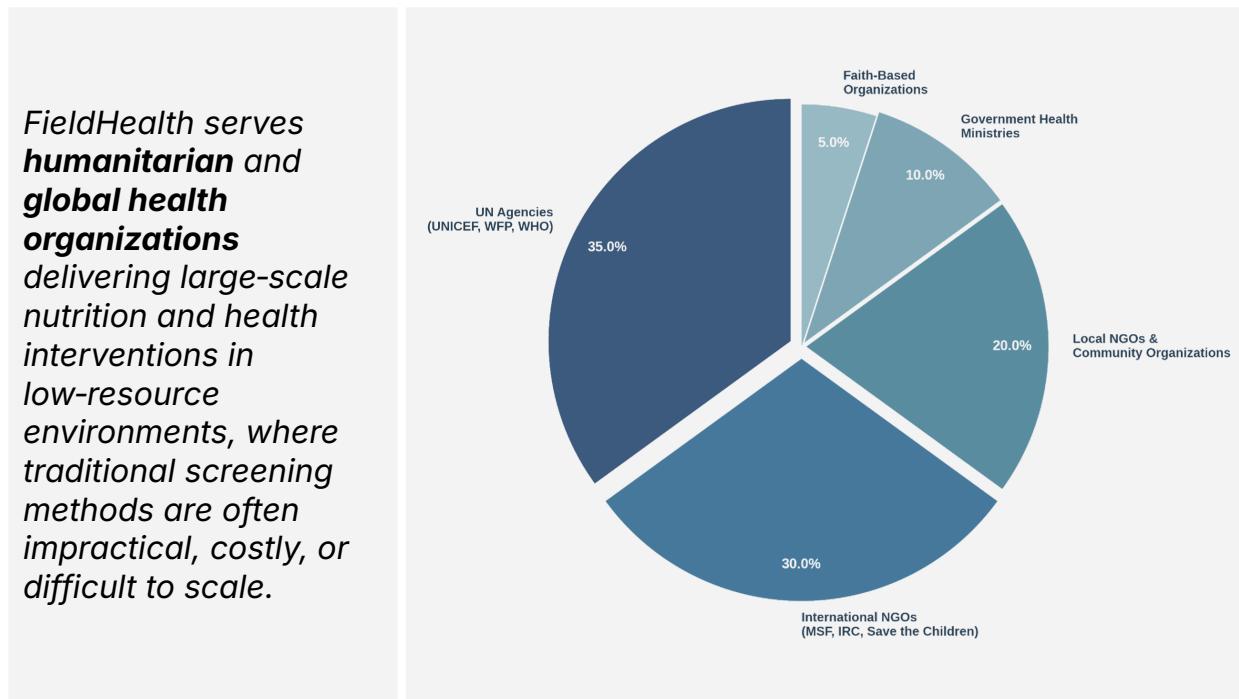
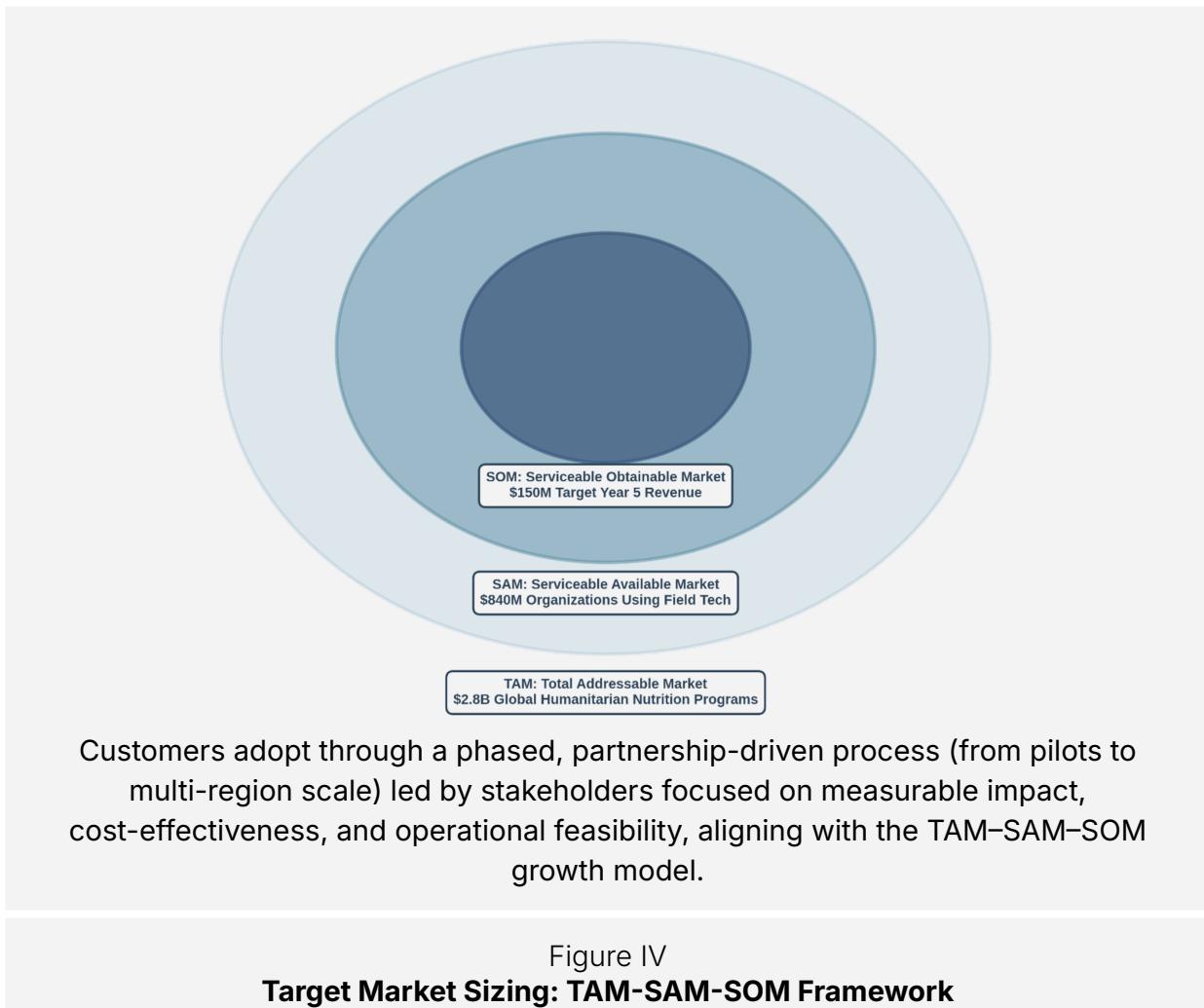


Figure III
Primary Target Market Segmentation by Organization Type
[\(United Nations OCHA, 2025\)](#)

4.1 Market Analysis

FieldHealth prioritizes regions where humanitarian need, malnutrition burden, and partner presence overlap: starting in **Sub-Saharan Africa** and the **Middle East & North Africa**, then expanding into **South and Southeast Asia** and other disaster- and refugee-focused markets. The technology supports high-impact deployment across camps, conflict zones, disaster response, rural health programs, and school nutrition initiatives where rapid, offline screening improves early detection and aid targeting.



Market Entry Strategy and Prioritization

Focus (Year 1): Partner with 2–3 innovation-oriented NGOs with faster procurement cycles to run 3–5 pilots in Sub-Saharan Africa and MENA (5,000–10,000 screenings) and generate case studies and impact data for scaling.

Expansion (Year 2): Use pilot results to engage UN agencies (e.g., UNICEF, WFP), grow to 8–12 partners and 40,000–60,000 annual screenings, and begin academic collaborations for peer-reviewed validation.

Scaling (Years 3–5): Reach 25–30 organizational partnerships and 500,000+ annual screenings across priority regions while expanding into South and Southeast Asia and new use cases such as government health and school nutrition programs.

5 Competitive Analysis

5.1 Current Competitors

FieldHealth operates in a **distinct category** from consumer wellness devices and traditional diagnostics by addressing the critical gap in early-stage nutrition and hydration screening for low-resource, humanitarian, and emergency settings. Rather than competing with fitness trackers or laboratory testing, it is purpose-built for the realities faced by NGOs, aid organizations, and frontline health workers in contexts shaped by poverty, conflict, and disaster, positioning FieldHealth as a category creator in humanitarian health technology rather than a direct competitor to existing products.

Digital Health, Consumer Wearables, & Field Screening Tools

Platform/Tool Category	Representative Examples	Market Mismatch
Fitness & Activity Trackers	  	Designed for consumer wellness, not clinical screening. No nutrition biomarkers, requires smartphones, cloud connectivity, and individual ownership (\$100–\$400/device). Not scalable for institutional or low-resource deployment.
Camera-Based Assessment Apps	 	Highly sensitive to lighting, image quality, and user behavior; inconsistent across skin tones. Cannot measure biochemical markers. Requires smartphones and reliable internet.
Mobile Screening Data Collection Platforms	 	Digitize health data but still rely on late-stage anthropometric indicators and lack real-time biosensing for early risk detection.

6 Marketing Strategy

Core Value Proposition: **Earlier detection. Smarter targeting. Greater impact at scale.**

6.1 Key Procurement Mechanisms

FieldHealth targets three primary procurement pathways used by humanitarian organizations:

Mechanism	Description	FieldHealth Approach
Direct Organizational Procurement	NGOs purchase directly for country programs; budgets led by program or regional health leaders.	Pilot-led, relationship sales with flexible contracts, donor-ready reporting, and training support.
UN/Multilateral Framework Agreements	Pre-negotiated UN agreements enable country offices to order without bidding; requires strict technical and financial vetting.	Build pilot evidence, secure UN supplier status, and meet agency technical standards.
Pooled Procurement & Consortia	Joint purchasing for scale across global health and humanitarian initiatives.	Engage cluster coordination, offer volume packages, and position FieldHealth as a shared platform.

6.2 The FieldHealth Partnership Ecosystem

FieldHealth's partnership strategy **begins** with implementing NGOs (MSF, IRC, Save the Children, World Vision, CARE, Mercy Corps) to run pilots and generate evidence, then **expands** to UN and multilateral agencies (UNICEF, WHO, UNHCR, WFP, UNFPA, Gavi, Global Fund) for standards alignment and large-scale procurement, while **collaborating** with leading research institutions (Johns Hopkins, LSHTM, Tufts, Harvard Humanitarian Initiative, PATH) for validation and **working** with funders and enablers (Gates Foundation, USAID, Global Affairs Canada, DFID, ECHO, digital health hubs) to support funding, advocacy, and global scale.

7 Operations

FieldHealth's operational model balances the technical complexity of medical device manufacturing with the cost constraints and deployment requirements of humanitarian contexts.

7.1 Business Facilities & Manufacturing Model



FieldHealth operates a globally distributed infrastructure for R&D, manufacturing, and deployment: R&D in Boston, ISO-13485 wearable production in Shenzhen (100k units/year), cleanroom sweat-patch manufacturing in Bangalore (500k/year), Dubai as the logistics hub, and distributed software teams supporting continuous, secure development.

7.2 Product Development & Production Plan

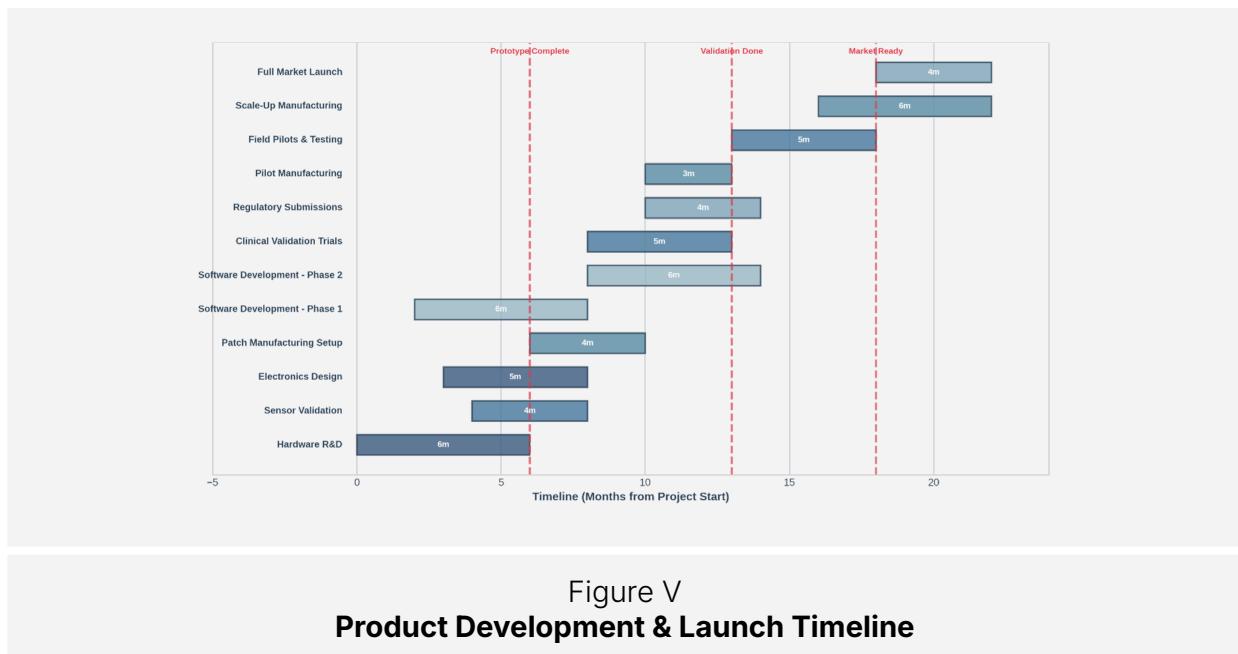
Development follows a phased path from prototyping to commercial manufacturing, enabling iterative validation while advancing toward launch.

NutriBand Manufacturing Pipeline

STEP 1 PCB Fabrication	STEP 2 Assembly	STEP 3 Sensor Integration	STEP 4 Enclosure Assembly	STEP 5 Testing & QA
Medical-grade 4-layer PCBs with bioimpedance sensing, MCU, BLE, and power systems are manufactured.	Automated pick-and-place and optical inspection assemble and verify components.	Stainless-steel electrodes, a lithium-polymer battery, and a tuned Bluetooth antenna are installed.	Electronics are sealed in IP67 polycarbonate housings with medical-grade silicone wristbands.	Each unit is fully tested, validated, and serialized for traceability (<2% failure target).

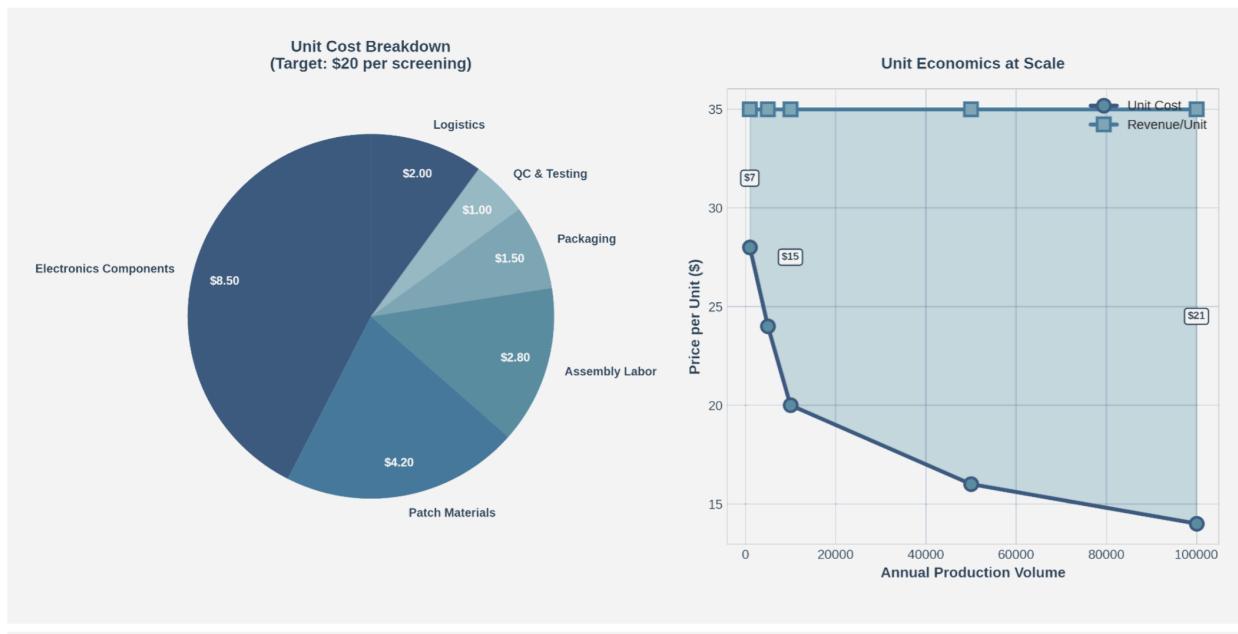
Launch Timeline

22-month path from R&D to validation, scale-up, and full market launch.



Cost Structure & Economies of Scale

Scaling cuts unit cost from ~\$28 to ~\$14 while revenue stays ~\$35 per screening.





FieldVitals Hub Software Development

Hardware Layer Bioimpedance · Electrochemical Sensors · Bluetooth LE · Li-Po Battery
Edge Computing TensorFlow Lite · Signal Processing · Real-time Analytics
Mobile Applications React Native · Offline-First Architecture · Data Sync · Field Worker UI
Cloud Infrastructure AWS/Azure · PostgreSQL · Redis Cache · RESTful APIs
Analytics & ML PyTorch · Pandas · Jupyter · Model Training Pipeline

7.3 Personnel & Workforce Plan

FieldHealth's workforce strategy scales with revenue, balancing technical excellence in product development with commercial capacity through a mix of full-time hires and strategic partnerships.

Foundational Team (Years 1–2)	Expansion Team (Years 3–5)
Phase 1 builds a 25–30 person team spanning engineering (hardware, software, ML, product/UX) to develop NutriBand and FieldVitals Hub, operations and manufacturing to establish supply chain and quality systems, commercial roles to drive NGO pilots and partnerships, and finance/legal support to ensure compliance and scaling readiness.	Phase 2 expands to a 60–70 person team scaling production and global deployments, growing engineering (software, data, hardware, cybersecurity), building regional operations and logistics teams, expanding partnerships and customer support, and strengthening HR, finance, legal, and communications.

7.4 Role of Technology & Data Infrastructure

FieldHealth's infrastructure is secure, scalable, and offline-ready, minimizing stored health data by converting biosensor inputs into encrypted, de-identified risk scores. End-to-end encryption, MFA, role-based access, audit logging, and HIPAA/GDPR-aligned controls ensure strong data governance, while Terraform-based cloud infrastructure, CI/CD pipelines, PostgreSQL partitioning, backups, and full monitoring support reliable scaling from pilots to millions of screenings.

8 Management & Organization

8.1 Founding Team and Hiring Plan



Tarun Batchu
Olentangy Liberty
High School



Ben Kurian
Olentangy Liberty
High School



Kaveh Khoshnood, PhD
Yale
University

Tarun Batchu leads strategy, partnerships, and product direction as CEO; Ben Kurian serves as COO scaling operations and execution; and Kaveh Khoshnood, PhD, serves as CFO and a public health academician guiding sustainability and financial strategy.

Recruitment & Talent Strategy

FieldHealth will recruit mission-aligned talent through university partnerships, global health networks, industry conferences, professional platforms, and advisor referrals, while establishing a **Board of Directors**, **advisory board**, and **consultant network** supported by **competitive compensation** and incentives to attract and retain key contributors.

9 Company Analysis

9.1 Five-Year Plan

Years 1–3: Prototype to Approval (2026–2028)

Develop and validate the biosensor patch and wristband, build offline AI analytics, complete clinical studies, secure seed and Series A funding, obtain FDA clearance, CE Mark, and WHO prequalification, establish manufacturing (~50k units/year), and launch pilots and early sales in 3–5 countries.

Years 3–5: Scale & Expansion (2028–2030)

Expand partnerships across 15+ countries, deploy 150k+ units, launch next-gen and maternal/pediatric variants, integrate predictive analytics, reach operational breakeven, and grow revenue to ~\$12–15M while screening 500k+ people.

Years 5+: Global Platform Growth (2031+)

Scale to millions of screenings annually, deepen UN and government partnerships, and expand into additional diagnostics and population-health tools.

9.2 SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> Purpose-built health technology Early biochemical risk detection Offline-first system design Scalable deployment model 	<ul style="list-style-type: none"> Early-stage product maturity Limited operational track record High regulatory burden Capital-intensive development
Opportunities	Threats
<ul style="list-style-type: none"> Growing humanitarian funding Rising malnutrition screening demand NGO and UN partnerships Expansion to public health systems 	<ul style="list-style-type: none"> Regulatory approval delays Funding volatility and donor cycles Field deployment logistical challenges New low-cost competitor entry

9.3 Risk Assessment Matrix

Risk Category	Likelihood	Impact	Priority
Tech. Performance	Medium	High	High
Regulatory Delays	Medium	High	High
Funding Shortfalls	Medium	High	High
Market Adoption	Medium	Medium	Medium
Disruption	Low	Medium	Low
Competitive Entry	Low	Medium	Low



FieldHealth mitigates key risks through early regulatory engagement, rigorous environmental and clinical validation, diversified funding across grants and impact investors, and partnership-driven pilots with major global health organizations to accelerate trust and adoption. The strategy emphasizes strong documentation, conservative financial planning, and evidence-based deployment to ensure resilience across approval, performance, funding, and market-adoption challenges.

10 Financial Plan

FieldHealth will use accrual accounting and manage financial tracking and reporting using QuickBooks.

10.1 Y1 Monthly Income

Month	Revenue	COGS	Gross Profit	Operating Expenses	Net Income
Jan	10,000	8,480	1,520	76,042	-74,522
Feb	12,000	10,176	1,824	76,042	-74,218
Mar	15,000	12,720	2,280	76,042	-73,762
Apr	18,000	15,264	2,736	76,042	-73,306
May	20,000	16,960	3,040	76,042	-73,002
Jun	22,000	18,656	3,344	76,042	-72,698
Jul	25,000	21,200	3,800	76,042	-72,242
Aug	28,000	23,744	4,256	76,042	-71,786
Sep	32,000	27,136	4,864	76,042	-71,178
Oct	36,000	30,528	5,472	76,042	-70,570
Nov	45,000	38,160	6,840	76,042	-69,202
Dec	56,000	47,488	8,512	76,042	-67,530

10.2 Y1 Monthly Cash Flow

Month	Cash In	Cash Out	Net Cash Flow	Ending Cash
Jan	10,000	84,522	-74,522	1,296,278
Feb	12,000	86,218	-74,218	1,222,060
Mar	15,000	88,762	-73,762	1,148,298
Apr	18,000	91,306	-73,306	1,074,992
May	20,000	93,002	-73,002	1,001,990
Jun	22,000	94,698	-72,698	929,292
Jul	25,000	97,242	-72,242	857,050
Aug	28,000	99,786	-71,786	785,264
Sep	32,000	103,178	-71,178	714,086
Oct	36,000	106,570	-70,570	643,516
Nov	45,000	114,202	-69,202	574,314
Dec	56,000	123,530	-67,530	506,784

10.3 Annual Income Statements (Y1, Y3, Y5)

	Year 1	Year 3	Year 5
Revenue	319,000	5,536,000	18,616,000
Cost of Goods Sold	270,480	5,071,500	17,581,200
Gross Profit	48,520	464,500	1,034,800
Operating Expenses	912,500	1,652,000	2,340,000
Net Income	-921,980	-1,234,700	-1,339,700

Sources were cited in-text.