Innovation · Humanity · Intelligence · Global Vision

Setting the Standard in Humanoid Elderly Care Robotics

AJJ Medtech

AJJ HEALTHCARE MANAGEMENT PTE. LTD. and HANGZHOU HUAXI INTELLIGENT TECHNOLOGY CO., LTD.

Innovation – Humanity – Intelligence – Global Vision

Embodied-Intelligence Humanoid Robot for Elderly Care
Humanity Reimagined
Vision & Execution Plan

Setting the Standard in Humanoid Elderly Care Robotics

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Founding Statement: The Question of Our Time

Author | Zhang Jian

As humanity enters an era of unprecedented longevity, the question before us is no longer whether technology can advance, but whether care can evolve.
The global aging society is not merely a demographic shift.
It is a structural challenge to healthcare systems, caregiving workforces, public finance, and—most critically—human dignity.
For decades, innovation has focused on efficiency, automation, and replacement.
Yet elderly care demands something fundamentally different: **understanding, presence, and responsibility.**

This is not a robotics problem.
It is a human problem.

The question of our time is therefore clear:
How can intelligence be embodied—not to replace human care, but to preserve dignity, ensure safety, and sustain companionship in a world where traditional caregiving models are no longer scalable?

Our answer lies in the development of the **Embodied-Intelligence Humanoid Robot for Elderly Care.**
Not as a machine. Not as a product. But as a new standard of care.

By integrating embodied intelligence, medical-grade health monitoring, affective understanding, ethical AI governance, and global compliance frameworks, we establish a system designed to **understand, accompany, and protect** the elderly—continuously and responsibly.
This initiative represents more than technological innovation.

It is the formation of a new institutional approach to care, where intelligence operates within governance, technology serves humanity, and aging is met not with compromise, but with dignity.

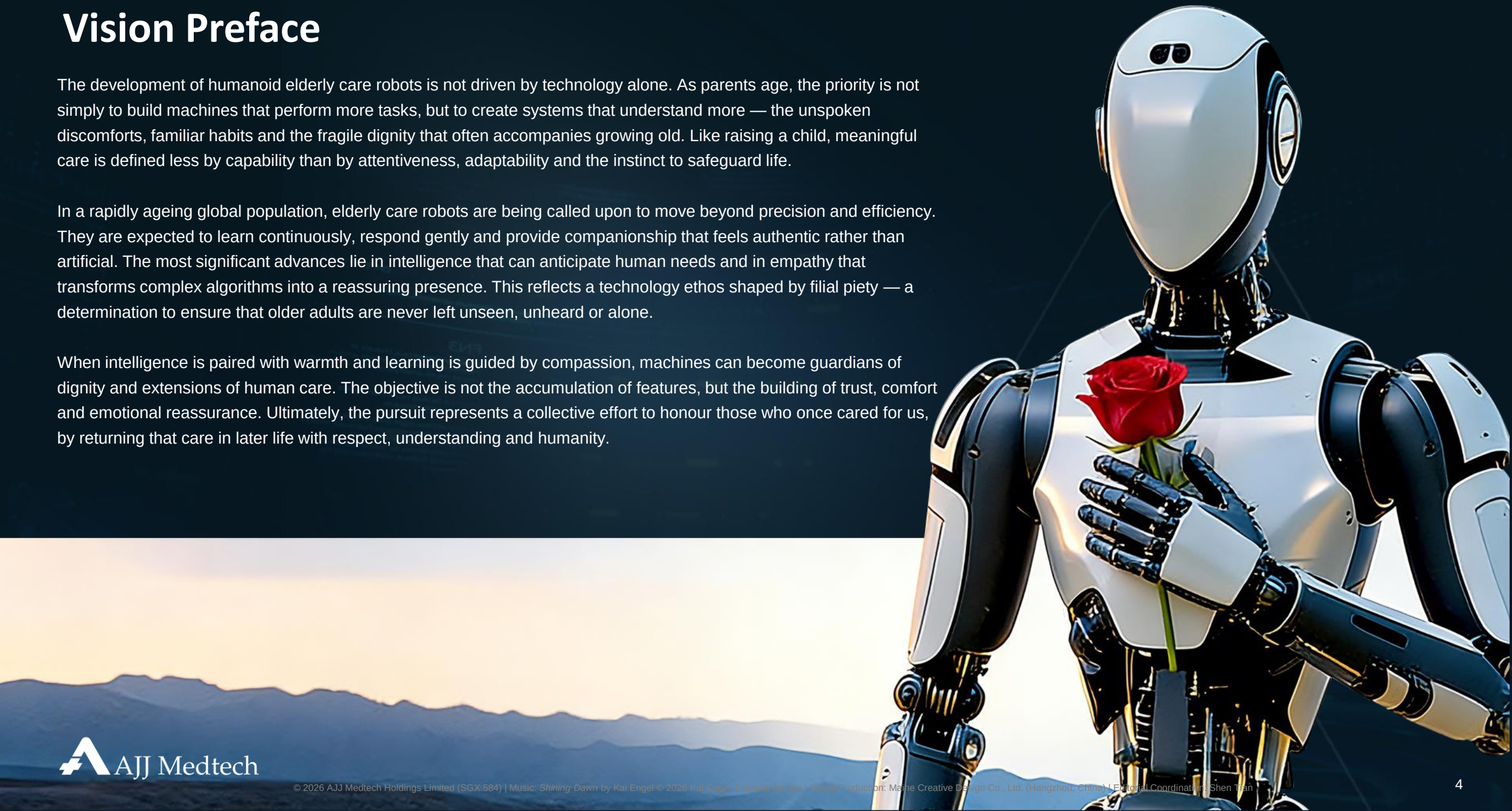
This is our founding statement.
And this is our answer to the question of our time.

Vision Preface

The development of humanoid elderly care robots is not driven by technology alone. As parents age, the priority is not simply to build machines that perform more tasks, but to create systems that understand more — the unspoken discomforts, familiar habits and the fragile dignity that often accompanies growing old. Like raising a child, meaningful care is defined less by capability than by attentiveness, adaptability and the instinct to safeguard life.

In a rapidly ageing global population, elderly care robots are being called upon to move beyond precision and efficiency. They are expected to learn continuously, respond gently and provide companionship that feels authentic rather than artificial. The most significant advances lie in intelligence that can anticipate human needs and in empathy that transforms complex algorithms into a reassuring presence. This reflects a technology ethos shaped by filial piety — a determination to ensure that older adults are never left unseen, unheard or alone.

When intelligence is paired with warmth and learning is guided by compassion, machines can become guardians of dignity and extensions of human care. The objective is not the accumulation of features, but the building of trust, comfort and emotional reassurance. Ultimately, the pursuit represents a collective effort to honour those who once cared for us, by returning that care in later life with respect, understanding and humanity.



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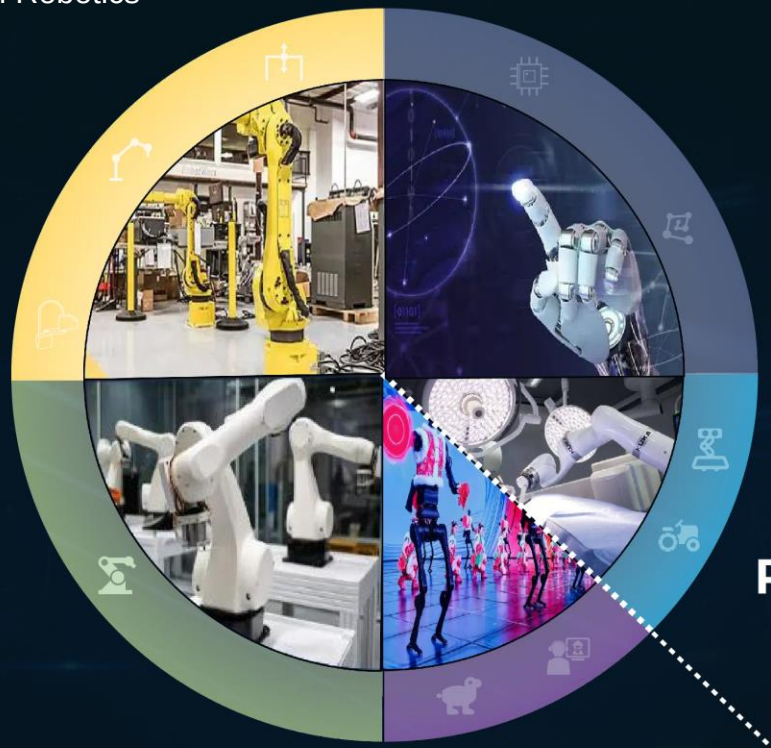
Types of robots：

Unlocking New Revenue Streams by Integrating AI with Robotics



Industrial robot

Payload

≤16kg ~ ≥225kg

Software

ROS/SaaS/A2A

Hardware

Cobot

- Motor — D.C./Servo/Stepping
- Drive — Hydro/Aero/Electric
- Sensor — Torque/Pressure/PSD

AI robot

- Processor — GPU/TPU/ASIC
- Technology — ML/NLP/CV/GAI

Professional Robot

- Mobile Robot
  - Land
  - Marine
  - Aerial
- Agriculture Robot
  - Autonomous tractor
  - Milking robot
  - Precision farming
- Service robot

Domestic Robot

- Cleaning Robot
  - Floor CR
  - Window CR
  - Pool CR
  - Lawn Mower
- Elderly care robot

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What is the AJJ x Huaxi humanoid elderly care robot? Bridging Care from Facilities to Homes

Front-End - Direct applications for seniors, families, and institutions

Smart Hardware
·Elderly care robots
·Smart beds
·Wearables
·Intelligent wheelchairs
·Rehabilitation devices

Health & Safety Monitoring
·Fall detection
·ECG, blood glucose, blood pressure monitoring
·Sleep quality
·Body temperature
·SpO_2

Daily Assistance
·Medication reminders
·Telemedicine
·Activity tracking
·Nutritional Diet & exercise management

Safety & Alerts
·Call centers
·Emergency alerts
·Bed occupancy monitoring
·Anti-wandering systems
·Environmental & Safety Sensors (Gas / Fall / Bed Exit)

Care & Companionship
·Nursing service calls
·Video companionship
·Virtual assistants
(Digital Companionship & Cognitive Support)
·Social engagement platforms

Value Delivered :

Elderly: Safety, dignity, companionship, and health management

Families: Peace of mind, real-time monitoring, remote interaction

Institutions: Efficiency, cost optimization, and enhanced service quality

Forming an AI-driven, closed-loop ecosystem for smart elderly care, enabling worry-free aging for everyone

Middle Platform - Intelligence & Data Empowerment Layer

Healthcare Cloud Platform

AI | DATA | IoT | SECURITY | DECISION SUPPORT

Back-End - Infrastructure & Compliance Layer

Infrastructure
Cloud computing
Edge computing
5G networks
Data center

System Integration
Interoperability with hospital HIS/EMR
Community health centers
Insurance systems
Government platforms

Operations Management
Order processing
Device maintenance
Service scheduling
Customer support

Compliance Management
Medical device certifications (HSA/CE/FDA)
ISO standards (ISO 13485/9001/14001/45001)
Singapore NEA/PUB environmental regulations

Intelligent Support
Artificial Intelligence
Big Data Analytics
Blockchain
IoT Systems
Hybrid Cloud Deployments

Ecosystem Support
Hospitals
Nursing homes
Homes
Rehabilitation centers
Insurance providers
Government agencies
Industry partners

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AJJ humanoid elderly care robot— Roadmap & Capabilities

Three Phase Roadmap

Nursing Home & communities

Phase I

Care Assistant Robot

Manpower shortage solution, night shift patrol, repetitive task automation

Home Care

Phase II

Home Companion Robot

Companionship, daily living assistance, safety reminders

Integrated institutional + Home Care

Phase III

Dependent Care Expert Robot

Advanced care assistance, specialized caregiving support

*Robot images shown are conceptual illustrations for visualization purposes only, not actual product photos

Phase I - Product Capability Evolution

Current Functions：

- **Robot ward rounds & crisis monitoring**
- **Chronic disease management & vital signs monitoring**
- **Item delivery**
- **Psychological therapy & companionship**

Next Functions：

- **Early screening & intervention for cognitive impairment**
- **Hospital-wide integrated robots monitoring**

Step by step: From institutions to homes, from basic tasks to intelligent care. The AJJ humanoid elderly care robot delivers full spectrum and end-to-end smart eldercare capabilities.

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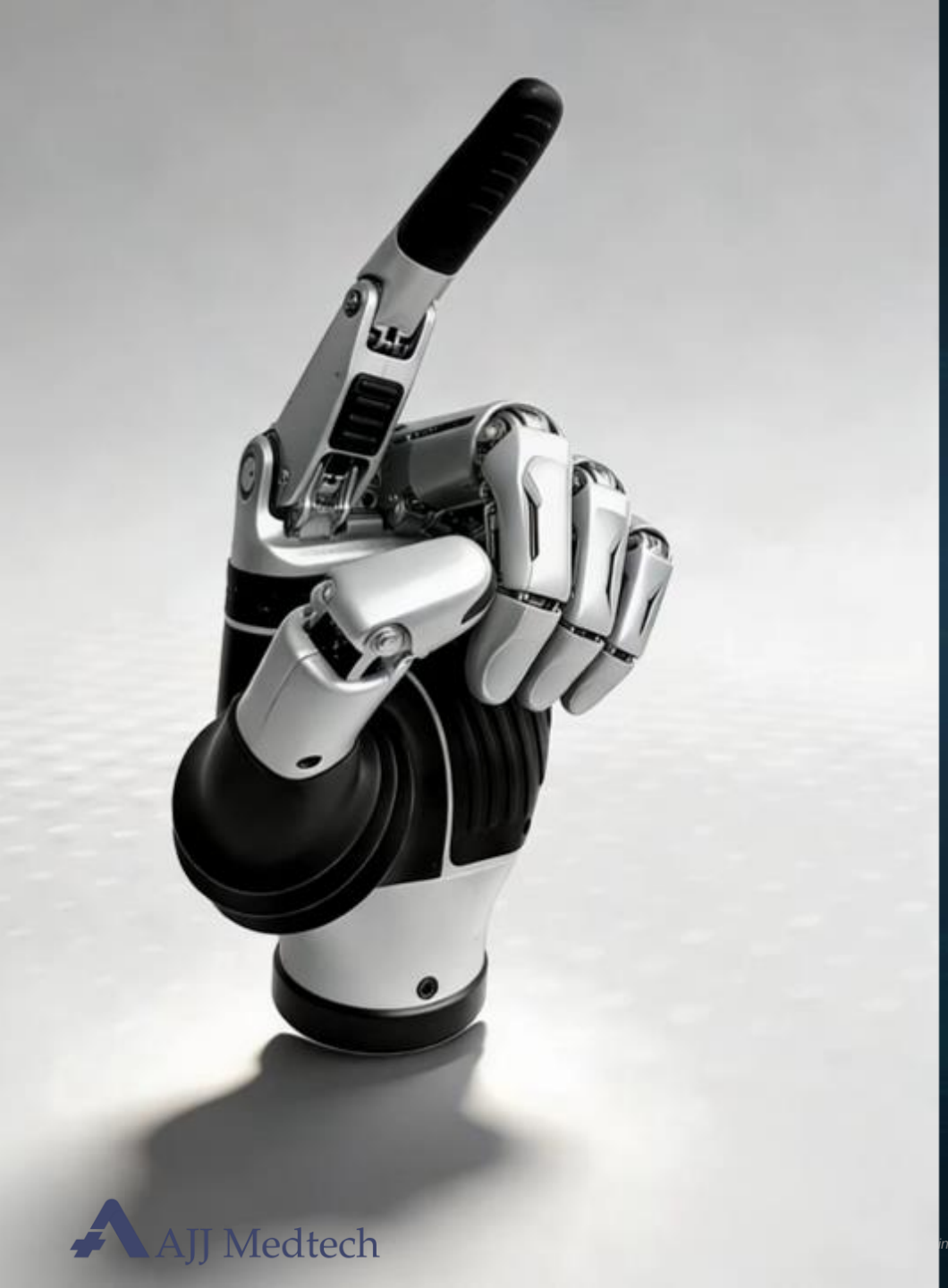

Embodied Intelligence Leading the Future of Eldercare :

AJJ × Huaxi Embodied-Intelligence robotic Hand for the Future of Eldercare

Item	Conventional Robotic Hand	Huaxi humanoid elderly care Robotic Hand
Structural DOF	Usually 6–10 degrees of freedom, with limited motion resolution.	21-DOF bionic structure enabling high-precision coordinated control.
Dexterity	Rigid mechanical structure, difficult to perform compliant or fine movements.	Compliant actuation algorithms supporting dual modes: “firm grip + gentle touch.”
Tactile & Force Sensing	Typically limited to pressure or displacement sensors.	Multi-point tactile array with closed-loop force feedback system.
Response Time	Response delay around 100–200 milliseconds.	Optimized to <50 ms low-latency response.
Learning Capability	Fixed motion templates without self-learning capability.	AI self-learning control combining vision and force models.
Safety Mechanism	No flexible limit, risk of excessive gripping force.	Complies with ISO 13482 safety standard with built-in force thresholds.
Materials	Constructed with metal or plastic mechanical parts.	Composite flexible materials with bio-grade coating.
Application Scope	Used for industrial gripping and handling tasks	Used for elderly assistance, caregiving support, and rehabilitation training.
AI Integration	No semantic or visual understanding capability.	Multimodal AI integrating vision, speech, and motion understanding
Design Philosophy	Function-oriented design.	“Human-centered embodied intelligence” bionic design.

Summary:

AJJ x Huaxi’s humanoid elderly care robotic hand integrates bionic structure, sensory fusion, and compliant control. It enables safe, stable, and delicate interaction in eldercare scenarios. The system performs “understand scenes, grasp steadily, and provide support,” combining human-like dexterity with high stability and low-latency control

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< Back to Contents

I. Vision Statement

- Redefining the Dignity and Warmth of Elderly Life Through Technology
- AJJ Medtech: AI Medical Algorithms, Health Monitoring, and Intelligent Care Solutions
- Huaxi Technology: Motion Control and Perception Systems for Humanoid Elderly Care Robots
- Company Overview
- Shared Vision: Creating Intelligent Companions That Understand, Accompany, and Protect
- “Enabling Every Elderly Individual to Have a Robot That Understands Care and Compassion.”

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I. Vision Statement

The integration of both transforms humanoid elderly care robots from mechanical tools into compassionate life companions—capable of understanding, judgment, and warmth

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Robot Motion Control and Perception System

1. Huaxi Robotics Vision

Building on the development of advanced embodied-intelligence humanoid elderly care robot platforms, we focus on system-level innovation in “human-like motion control, perception, and emotional expression.” Our mission is to enable humanoid elderly care robots not only to move with agility and autonomy, but also to interact with, accompany, empathize with, and safeguard the well-being of the elderly in a truly human-centric manner.

2. Core Technologies

• Bionic Motion Control System

Utilizing a high-degree-of-freedom servo-driven structure and dynamic balance algorithms, the system enables human-like gait, posture, and manipulation capabilities.

• Multimodal Perception System

Integrating vision, auditory, tactile, spatial localization, and force-feedback sensing, it builds a comprehensive system for environmental and emotional perception.

• Human–Robot Interaction & Affective Computing

Through AI-driven facial expression synthesis, voice modulation, and semantic understanding, humanoid elderly care robots have emotionally expressive communication and companionship capabilities, enabling interactions with genuine warmth and empathy.

Huaxi Technology:

humanoid elderly care robot Motion Control and Perception System

+

AJJ Medtech:

AI medical algorithms, health monitoring and smart care

AJJ Medtech

AJJ is a one-stop provider of AI-powered healthcare solutions, specializing in health monitoring and intelligent care.

1. AJJ MedTech Vision

In a global aging society, AJJ Medtech is committed to building a "data-driven care" medical ecosystem through artificial intelligence medical algorithms, remote monitoring, and smart nursing systems. Our goal is not only to extend life span, but also to enhance the quality and dignity of life for the elderly.

2. Core Technologies

• AI Health Intelligence Engine

Integrates voice, image, physiological signals, and behaviour pattern recognition to capture real-time changes in elderly health, enabling proactive alerts and personalized interventions.

• Digital Vital Monitoring System

Collects key indicators such as blood pressure, glucose, heart rate, and sleep quality through wearable devices and environmental sensor networks to build continuous health records.

• Smart Care Decision Engine

Powered by long-term data-trained care algorithms, it provides precise instructions to caregivers and humanoid elderly care robot, enabling humanoid elderly care robot collaborative care.

I. Vision Statement

The integration of both transforms humanoid elderly care robots from mechanical tools into compassionate life companions—capable of understanding, judgment, and warmth.

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Robot Motion Control and Perception System

3. Applications & Implementation

• Daily Assistance

Assist the elderly in standing up, walking, retrieving objects, and reminding them to take medication.

• Safety Monitoring

Utilize environmental sensing and AI-based early warning systems to prevent falls, sudden illnesses, and nighttime risks.

• Emotional Companionship

Provide gentle communication and emotional comfort through speech recognition and affective feedback.

4. Strategic Value

Huaxi Technology's robot motion and perception systems constitute the "body," while AJJ Medtech's AI healthcare algorithms, together with Huaxi Technology's elderly-care foundation model, collectively form the "mind."

Huaxi Technology:

humanoid elderly care robot Motion Control and Perception System

+

AJJ Medtech:

AI medical algorithms, health monitoring and smart care

AJJ Medtech

AJJ is a one-stop provider of AI-powered healthcare solutions, specializing in health monitoring and intelligent care.

3. Applications & Implementation

• Hospitals & Long-Term Care Facilities

Provide AI-powered health management interfaces and optimized nursing scheduling systems.

• Home Care Settings

Enable remote monitoring and emotional companionship through mobile apps and voice interaction.

• Intelligent Rehabilitation Centres

Integrate motion and physiological data to deliver algorithmic support for personalized rehabilitation.

4. Strategic Value

AJJ's will utilize AI medical algorithm system to serve as the "central nervous system" of the entire humanoid elderly care robot platform, providing Huaxi Technology with perception and decision-making data support, enabling the humanoid elderly care robot to evolve from an "executor" into an "understander" and "protector."

I. Vision Statement

The Golden Convergence of AI and Robotics

Huaxi Technology Introduction

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Huaxi Technology: Embodied Intelligent Humanoid Robotics Technology & System Capabilities

Huaxi Technology Introduction

1 Hangzhou Huaxi Intelligent Technology Co., Ltd. was established in 2024

2 From traditional single-function elderly-assisting equipment to multi-functional embodied humanoid elderly care robot for the first time; From passive process-based service robots to active intelligent service robots for the first time

3 Led by founder Yan Chunqiu, the team comprises five PhD researchers and more than ten Master’ s-level engineers, combining deep technical expertise with full-stack engineering capabilities.

4 - High technical threshold
Self-developed aging-friendly dexterous hands and robotic arms
(costs are 40% lower than outsourcing, achieving ultimate pricing)

5 - Strong industrialization capabilities
Exclusive large-scale data set, the largest pension model.

Intelligent Healthcare, Motion with Emotion

AJJ Medtech Introduction

AJJ Medtech Holdings Limited
SGX: 584 REG:198403368H

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All For The Commitment To Life

1 AJJ Medtech is a Singapore-registered and regulated integrated Medtech platform, aligned with national healthcare and ageing strategies, delivering end-to-end Medtech and robotics solutions with data-driven decision-making to precisely address patient needs.

2 The company has regulatory access, QMS management, and localized clinical and commercial execution capabilities, serving as a compliant gateway and industrial bridge for international Medtech and eldercare robotics, while continuously optimizing operations through Continuous Learning & Collaboration.

3 AJJ provides end-to-end supply chain and robotics solutions, incubating digital, AI, and embodied intelligent robotics systems. Through rigorous selection and closed-loop data management, AJJ ensures quality, safety, and long-term usability, while acting as introducer, system integrator, and long-term operator in embodied intelligent humanoid eldercare robotics, continuously enhancing deployment efficiency via the Cloud Intelligence Layer.

Singapore Accreditation Council · bizSAFE · National Environment Agency · HSA · FDA U.S. FOOD & DRUG ADMINISTRATION · Ministry of Manpower · MINISTRY OF HEALTH SINGAPORE · INFOCOMM MEDIA DEVELOPMENT AUTHORITY · bsi UKAS · ACT

< Back to Contents

II. Market Landscape and Opportunities ★

Global Robotics Market Outlook

Structural Growth Drivers and Market Transformation Trends

Strategic Positioning of AJJ Medtech

2.1 Global Aging Trend: A Structural Civilizational Turning Point: By 2050, the population aged 60 and above is projected to account for 20% globally [1]

2.2 Shortages in Caregiving Workforce and Rising Healthcare Costs

2.3 Regional Structural Analysis: Multi-Tier Markets from Asia to Global (Excluding Mainland China) — Market Potential in Singapore, ASEAN, Japan, Europe, and North America

2.4 AI and Robotics as Core Solutions for Elderly Care

2.5 Strategic Conclusion: Singapore as a Global Leader in Shaping the New Order of Elderly Care Technology

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Reference: [1] WHO, Ageing and Health Fact Sheet, https://www.who.int/news-room/fact-sheets/detail/ageing-and-health

Chapter Author: Zhao Xin Alice

< Back to Contents

III. Technical Positioning

1. The World’s First “Most Fully-Featured” Embodied-Intelligence Humanoid Elderly Care Robot

2. Development of the AJJ × Huaxi Embodied-Intelligence Humanoid Elderly Care Robot International Standards Framework

3. “Reshaping Humanity” does not mean replacing humans with technology, but enabling technology to better understand humans. To the best of the Company's knowledge, the AJJ × Huaxi Embodied-Intelligence Humanoid Elderly Care Robot is the world’s first multifunctional humanoid care platform integrating “Medical Monitoring + Emotional Intelligence + Home Ecosystem + AI Adaptive Learning.”

- Functional Matrix:
  - Mobility Assistance
  - Medical Monitoring
  - Intelligent Interaction
  - Emotion Recognition
  - Home Control
  - Data Security (Medical-Grade Encryption)

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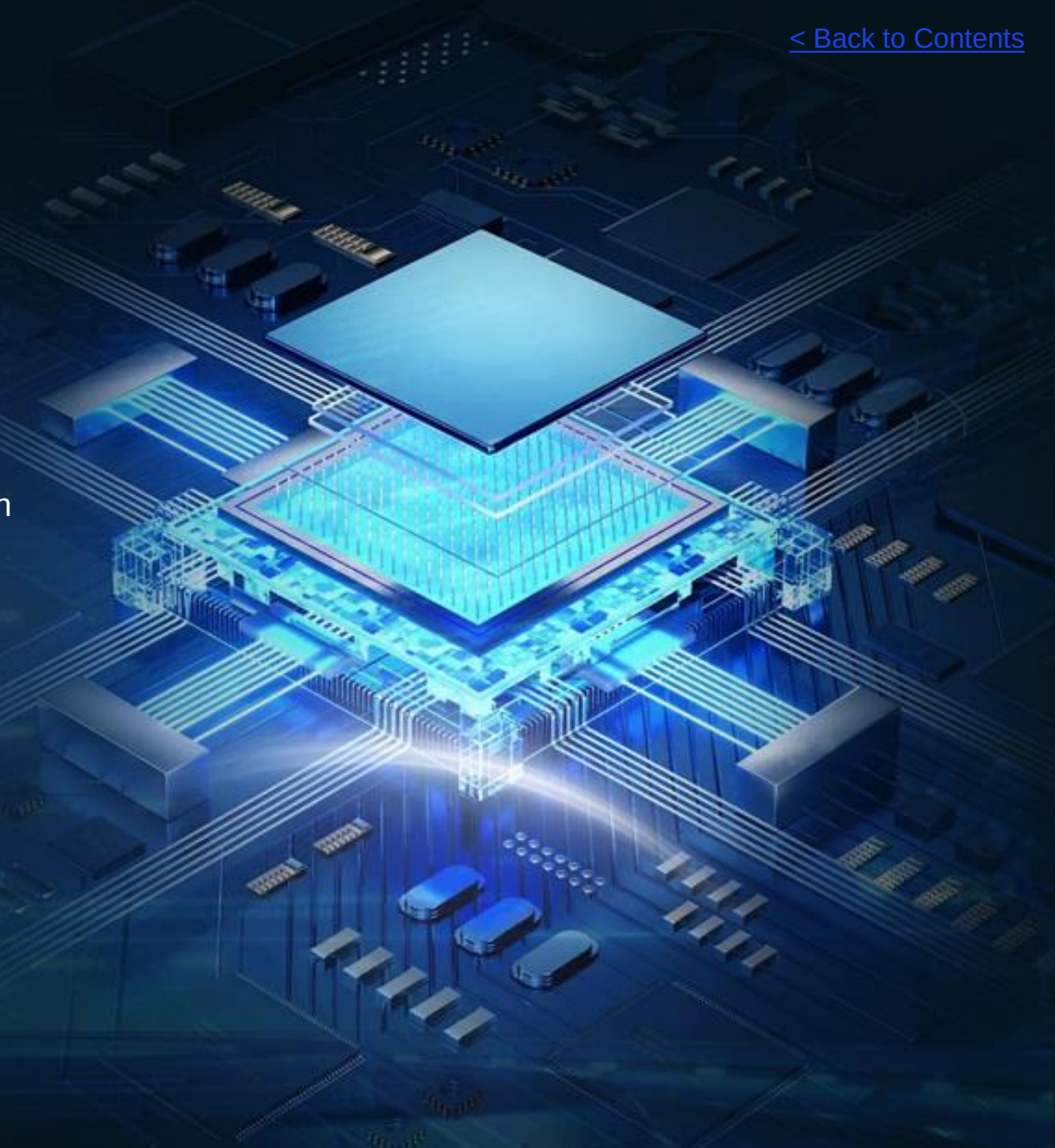
< Back to Contents

IV. Technical Architecture



1. Overall Concept – Three-Layer Architecture:

- Hardware Layer: Huaxi HTX Platform + LiDAR Sensing
- Software Layer: AJJ AI Health Core – Health Monitoring & Emotional AI
- Cloud Layer: Cloud Learning OS – Continuous Learning & Collaboration

2. Self-Learning, Self-Collaborating, Self-Evolving Network

3. Ecosystem / Business Model Development

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< Back to Contents

V. Execution Roadmap

Phase 1 (2026 Q1)：Foundation & Scoping (Prototype demonstration)

Phase 2 (2026 Q1–Q2)：Pre-Pilot Logistics & Compliance

Phase 3 (2026 Q1–Q2)：Pilot Setup

Phase 4 (2026 Q2–Q3)：Pilot Execution & Validation

Phase 5 (2026 Q3–Q4)：JV Formation & Next-Gen Development (ASEAN Expansion + Manufacturing Cooperation)

Phase 6 (2027 +)：Full Commercialization & Expansion

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< Back to Contents

VI. Strategic Partnerships Framework ★

- AJJ Integrated Health AI Solution
- AJJ Medtech: AI-based medical systems
- Huaxi Intelligent: Robotic body architecture and control systems
- Pilot deployments in Singapore hospitals
- Government support: Enterprise Singapore (Enterprise SG), Agency for Integrated Care (AIC), and Economic Development Board (EDB)
- Future expansion: elderly care groups, AI cloud platforms, and insurance institutions

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Forward-Looking Planning and Policy Reference Statement
The information presented in this section constitutes forward-looking strategic planning and references publicly available policy frameworks. Such information does not constitute confirmation of any concluded agreements, governmental approvals, or funding commitments.

Chapter Author: Ong Hon Hsiang William

< Back to Contents

VII. Investment Perspective

7.1 Global Market Outlook

7.2 Technological Barriers and First-Mover Advantage (Proprietary Core Technology Patents)

7.3 Business Model: Hardware + Subscription + Services — A Scalable Three-Tier Revenue Structure

7.4 Financial Projections and Profitability (Expected Average Margin of 45%)

7.5 Valuation Logic (Structural Illustration)

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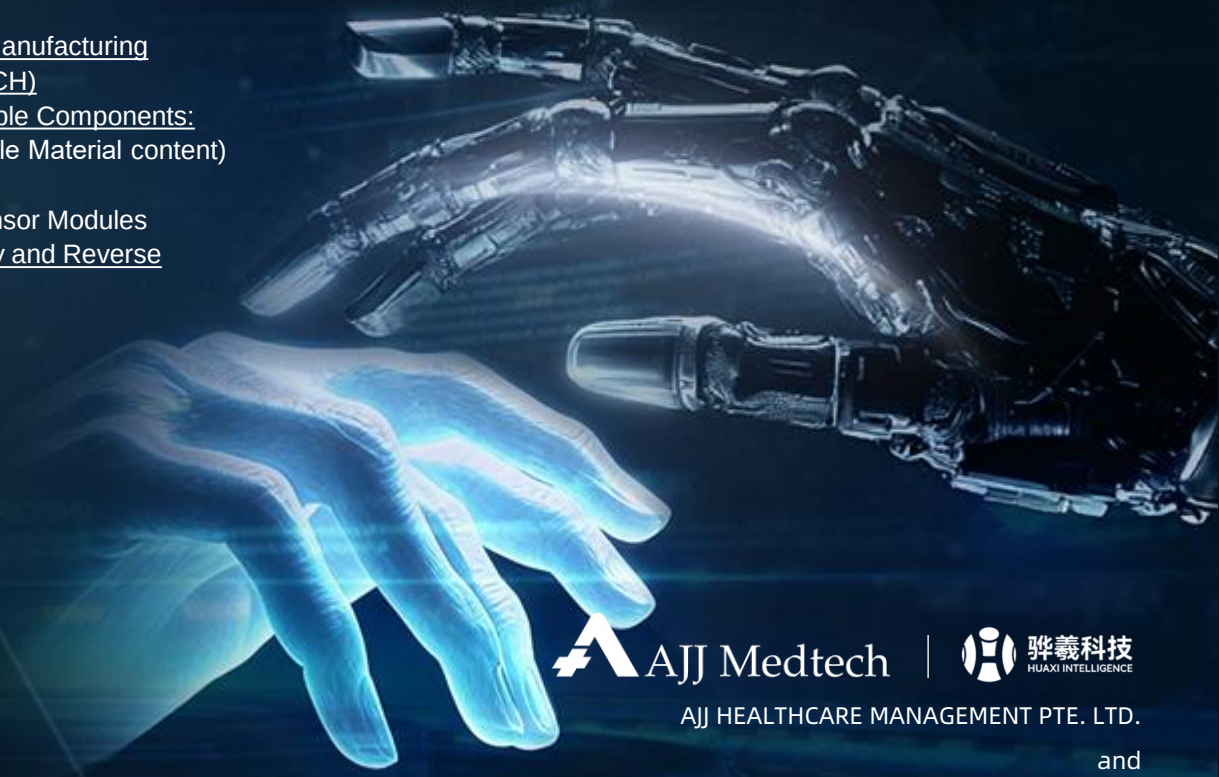
< Back to Contents

VIII. ESG & Social Impact ★

$$FTE_{saved} = \frac{\sum_{i=1}^{n} H_{robot}}{H_{FTE}}$$

$$\Delta C = ne(E_{manual} - E_{robot})$$



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Chapter Authors: Zhang Jian and Zhao Wentao

IX. Media & PR Plan

9. Overall Objectives

9.1 Official Launch: Singapore

Topic: Standard-Setter in the Field of Elderly Care Robots

Main Slogan: Intelligence that Understands Life

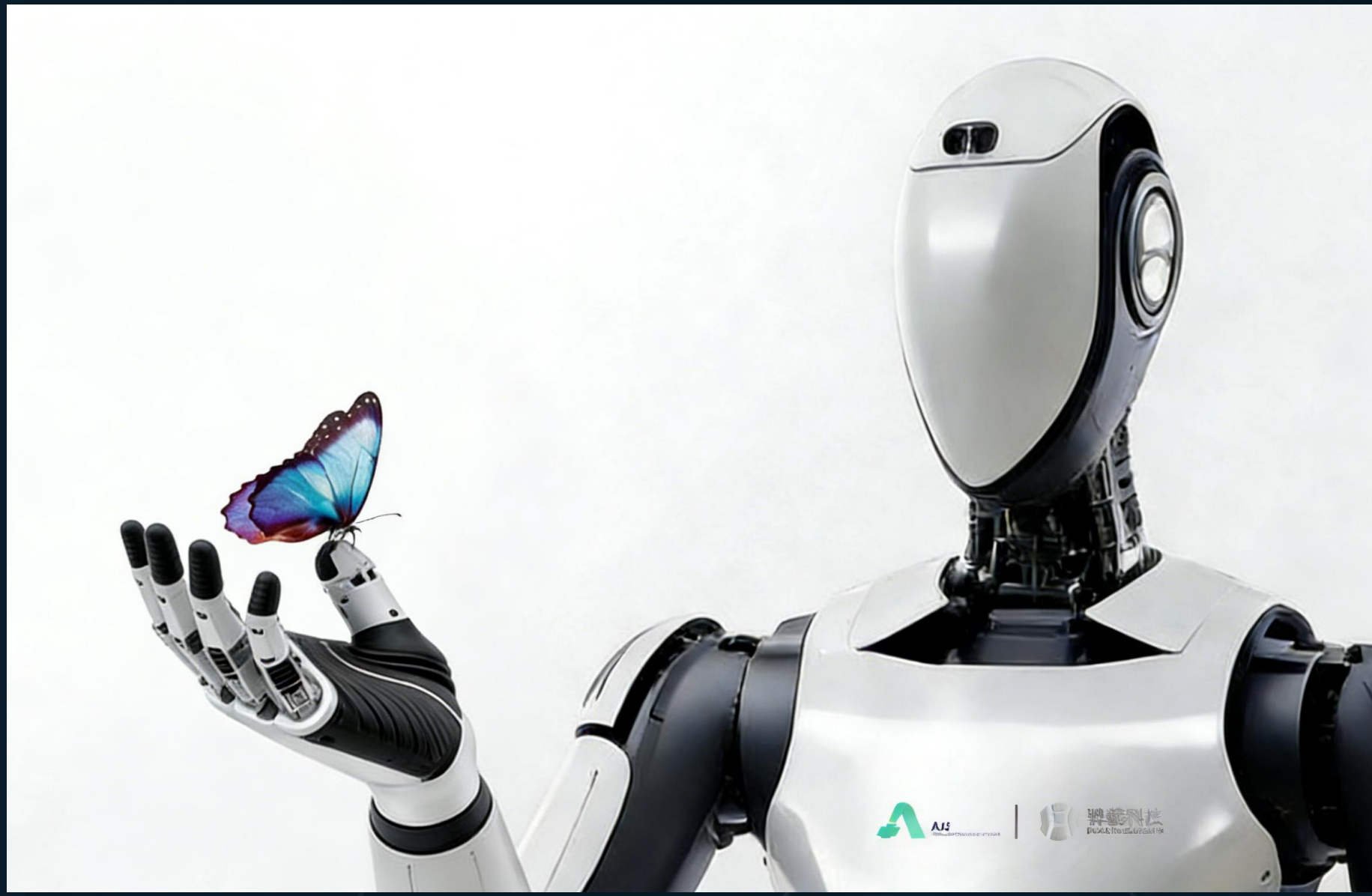
9.2 Target Media Communication: Covering Business Journals, Broadcast Media, Industry Publications, and Technology Media

9.3 PR Agency: August Consulting

9.4 Media Production Company:
Maihe Creative Design Co., Ltd

9.5 AI Video Short Film: Showcasing Humanoid Elderly Care Robots Accompanying Daily Life

9.6 Event Theme Design



< Back to Contents

X. Risk Management & Compliance ★

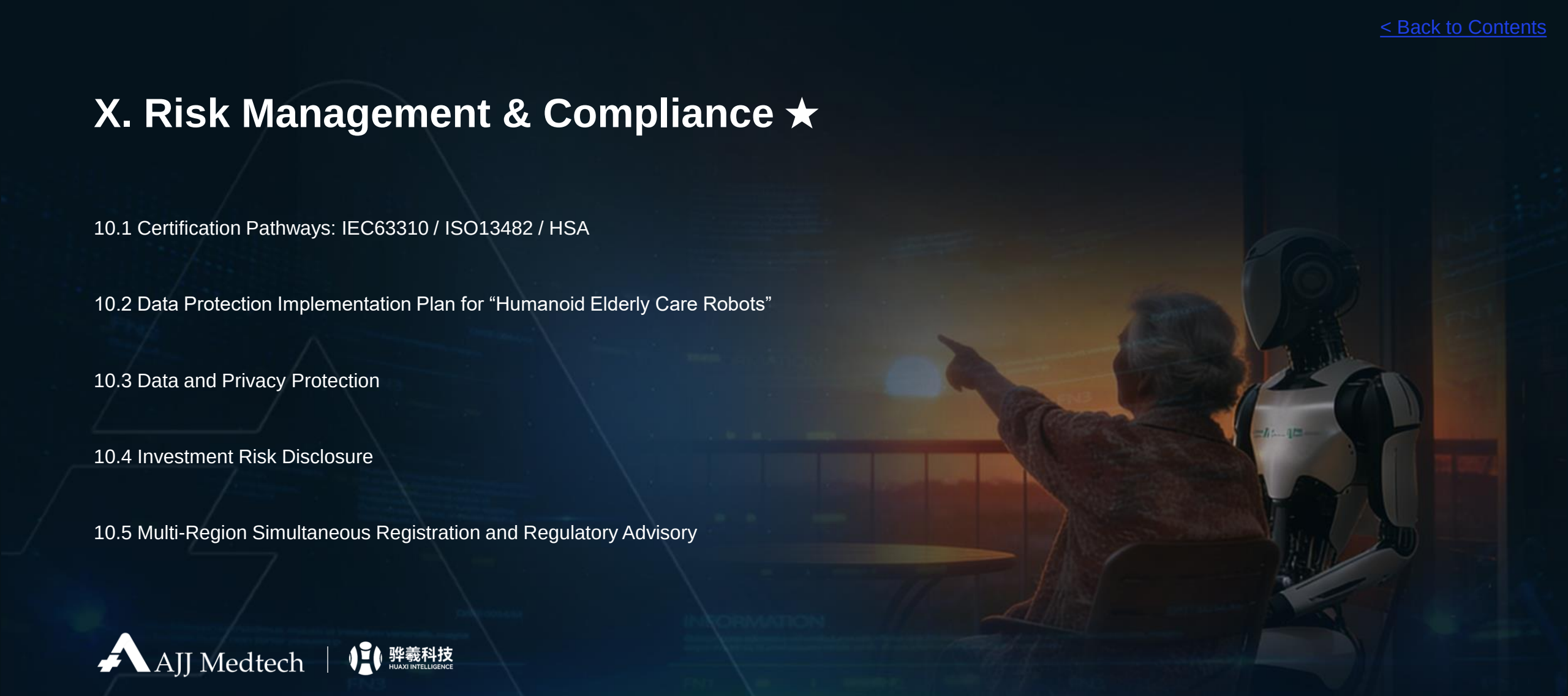
10.1 Certification Pathways: IEC63310 / ISO13482 / HSA

10.2 Data Protection Implementation Plan for “Humanoid Elderly Care Robots”

10.3 Data and Privacy Protection

10.4 Investment Risk Disclosure

10.5 Multi-Region Simultaneous Registration and Regulatory Advisory



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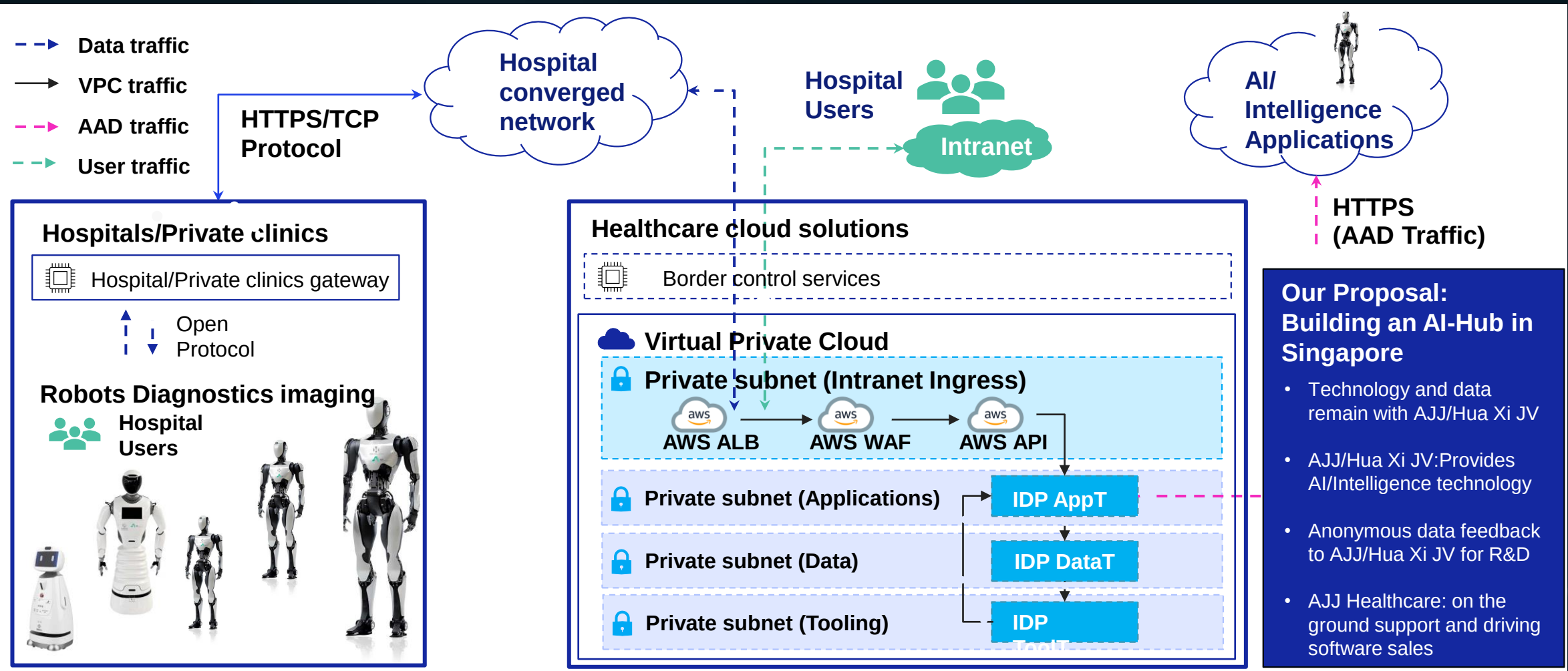
Chapter Author: Ong Hon Hsiang William

10.2 Data Protection Implementation Plan for “Humanoid Elderly Care Robots” (PDPA/PDPC)



1. **From the Perspective of Robotics AI Development**
- **Logic chain:** Mathematical AI → Physical AI → AI Business Model → AI Ecosystem →
- **Compliance:** Risk categories change dramatically at each stage, from technical safety → commercial compliance → ecosystem governance. Each stage requires clearly defined risk control measures.

2. **From the Perspective of AJJ × HuaXi Humanoid Eldercare Robot Development**
- **Logic chain:** HIT-1 → HIT-2 → HIT-3 →
- **Compliance:** Each generation must be individually assessed for registration, testing, and ethical approval. Different models (HIT-1/2/3 →) correspond to different regulatory categories (SaMD, Class A/B devices, system platforms).

Chapter Author Ong Hon Hsiang William

< Back to Contents

XI. Unit Economics — Core Foundation Validating the Sustainability and Scalability of the Business Model

11.1 Core Objectives (Enhanced Expression)

11.2 Unit Economics Framework Model (Abstracted to Avoid Cost Disclosure)

11.3 Economic Value Comparison: Robots vs Human Caregivers (Excluding Sensitive Costs)

11.4 Revenue Model: RaaS (Robot as a Service)

11.5 Profit Pathway and Scale-up Growth Curve (Clearer Inflection Points)

11.6 Key Takeaways of Unit Economics (For Roadshow Presentation)

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< Back to Contents

XII. Standards, Ethics, and Global Governance
— Institutional Responsibility in the Era of Elderly Care Robotics

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< Back to Contents

XIII. To the Future

- Redefining Care, Rehumanizing Technology
- Technology Enhances Humanity
- Robots as Digital Companions, Not Replacements
- Next Steps: Mass Production & Global Experience Centres
- The World’s First Multi-functional Embodied Intelligent Humanoid Care Robot
- Summary: AJJ × Huaxi Technology — Advantages and the New Global Care Intelligence Order

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< Back to Contents

XIII. To the Future

The Future is Here, Care Revolutionized — AJJ × Huaxi embodied-intelligence humanoid elderly care robot Redefines Smart Eldercare

13.1 Redefining Care, Redefining Humanity.
“Redefining Humanity” is not a slogan but a conviction at the heart of AJJ × Huaxi Technology. We believe that technology should not replace people—it should rebuild the way humans care for each other. Through our humanoid elderly care robots, care becomes more consistent, precise, and compassionate, restoring dignity and equality to both caregivers and those cared for.

13.2 Technology Should Make Humanity More Humane.
The fusion of AI, bionics, and affective computing enables machines not only to understand tasks—but to understand people. AJJ × Huaxi embodied-intelligence humanoid elderly care robots are not cold instruments but empathetic technological companions. Through semantic recognition, emotional interaction, and adaptive learning, our robots perceive tone, respond to emotion, and understand context—making technology an extension of humanity.

13.3 Robots Are Digital Companions, Not Replacements.
In the society of the future, robots should not replace humans but coexist with them. AJJ × Huaxi Technology introduces the concept of “Digital Companionship,” where humanoid elderly care robots become intelligent assistants, social partners, and guardians of well-being for the elderly. They record data without invading privacy, offer help without taking autonomy, and accompany daily life while respecting solitude.

13.4 The Next Step: Mass Production and Global Experience Centres.
AJJ × Huaxi Technology has transitioned from the laboratory to large-scale production, marking a new era in humanoid elderly care robotics. The Company intends/ targets for the first-generation robots to be launched simultaneously in Singapore, China and the European markets. We are establishing a “Global Experience Centre Network,” allowing governments, communities, families, and investors to personally experience the warmth of AI-driven care. Moving forward, AJJ × Huaxi will collaborate with global healthcare providers, eldercare groups, and smart manufacturing partners to build a “Human–Robot Integration Ecosystem,” advancing sustainable well-being in an ageing world.

XIII. To the Future

The Future is Here, Care Revolutionized — AJJ × Huaxi embodied-intelligence humanoid elderly care robot Redefines Smart Eldercare

13.5 The World's First Multi-Functional Humanoid Eldercare Robot: AJJ × Huaxi humanoid elderly care robot's Global Leadership Global Frontier Positioning:
The "humanoid elderly care robot" jointly launched by AJJ Medtech and Huaxi Technology is the world's first multifunctional humanoid robotic system integrating medical care, rehabilitation, companionship, and AI-driven decision support. It marks the formal transition of humanoid elderly care robots from "assistive devices" to intelligent nodes within a smart healthcare ecosystem. More than a robot, it is a turnkey AI healthcare solution platform—spanning sensors to computing, emotion recognition to telemedicine, and local caregiving to global connectivity. AJJ Medtech delivers end-to-end closed-loop control and standardized deployment, establishing a global benchmark for medical-grade robotic systems.

Political	Economic	Social	Technological	Environmental	Legal
Singapore government supports eldercare tech innovation with pilot funding, tax incentives, and healthcare data-sharing policies	Rapid global ageing increases demand for intelligent care robots, reducing labour costs, improving efficiency, and creating reskilling and investment ROI opportunities.	Addresses caregiver shortages, enhances elder dignity, life quality, and social trust.	Rapid advances in AI, robotics, sensors, and cloud platforms. AJJ × Huaxi leads in multi-modal perception, Med-AI NeuroFusion™, Huaxi Bio-Motion™, and H-Touch™ tactile technology.	Green manufacturing and recyclable materials (ISO 14001 / RoHS) reduce carbon footprint and meet global ESG standards.	Cross-border compliance covers medical, robotic, and data privacy regulations; Reg-AI Audit™ automates compliance reports, supporting global registration (Singapore HSA, EU MDR, US FDA).

The Future is Here, Care Revolutionized — AJJ × Huaxi embodied-intelligence humanoid elderly care robot Redefines Smart Eldercare

Value driver

Key questions

NO. Subsection

13 To the Future

13.5 The World's First Multi-Functional Embodied-Intelligence Humanoid Eldercare Robot: AJJ × Huaxi humanoid elderly care robot's Global Leadership Global Frontier Positioning:

13.5.2 First-Mover Advantage & Proprietary Technologies

AJJ × Huaxi's Strategic Edge: By deeply integrating humanoid bionic design, AI behavioural algorithms, and cross-scenario interaction models, AJJ × Huaxi Technology targets to become the world's first company to achieve mass production of "human-like care" robots. The project involves a comprehensive portfolio of proprietary IP and patents, covering AI control, semantic interaction, tactile feedback, gait stabilization, and remote maintenance technologies. **AJJ × Huaxi humanoid care robots align perfectly with Singapore's tech-enabled eldercare ecosystem, setting a global benchmark for the future of intelligent care industries.**

13.5.3 Technological & Patent Moat

The project will be protected by a comprehensive patent portfolio across six core domains—AI control, semantic interaction, tactile feedback, gait stabilization, remote maintenance, and medical-image fusion—secured under full proprietary IP. The AI core is powered by AJJ Medtech's proprietary Med-AI NeuroFusion™ Cognitive Framework, a neuro-inspired architecture enabling adaptive multi-modal data fusion and clinical-grade decision-making. At the embodiment level, the robot integrates Huaxi Bio-Motion™ Dynamic Bionic Engine and H-Touch™ Tactile Matrix, delivering unprecedented medical-grade human–robot contact safety.

13.5.4 ESG Contributions and Human-Centric Value

Against the backdrop of global population ageing and chronic shortages in the caregiving workforce, the AJJ × Huaxi project directly aligns with the United Nations Sustainable Development Goals (SDG 3: Good Health and Well-Being; SDG 9: Industry, Innovation and Infrastructure; SDG 12: Responsible Consumption and Production[1]). Each humanoid elderly care robot is expected to offset the equivalent of approximately **2.3–2.4 full-time caregiving roles in daily workload**, while simultaneously enabling **upskilling and re-employment of caregivers** into higher-value roles such as technical operations and remote health monitoring.

From a manufacturing perspective, the system adheres to **green manufacturing standards** (ISO 14001 / RoHS), with approximately **70% of components designed for recyclability**. At the data and AI layer, the platform complies with **PDPA and GDPR**, ensuring robust privacy protection, ethical AI governance, and long-term societal trust.

Reference: [1]United Nations. (n.d.). *Sustainable Development Goals*. United Nations. Retrieved, from https://www.un.org/sustainabledevelopment/

The Future is Here, Care Revolutionized — AJJ × Huaxi embodied-intelligence humanoid elderly care robot Redefines Smart Eldercare

Value driver

Key questions

NO. Subsection

13 To the Future

13.5 The World's First Multi-Functional Embodied-Intelligence Humanoid Eldercare Robot: AJJ × Huaxi humanoid elderly care robot's Global Leadership Global Frontier Positioning:

13.5.5 Medical & Robotic Standard Compliance

The system follows a dual-track compliance architecture: ISO 13485 for medical devices, and IEC 63310 / ISO 13482 for robotic safety. AJJ Medtech's Reg-AI Audit™ engine automates compliance documentation, risk matrices, and traceability logs, supporting unified registration across global regulators (Singapore HSA, EU MDR, US FDA).This makes the Huaxi humanoid elderly care robot the first humanoid elderly care robot globally to achieve dual medical + robotic certification readiness.

13.5.6 Linguistic, Cultural & Cognitive Intelligence

The system natively supports multilingual and multicultural interaction—English, Mandarin, Malay, Tamil, and major Southeast Asian dialects—augmented by contextual and cultural emotion modelling. AJJ Medtech's LinguaCare™ Affective Language Model dynamically adapts tone, pace, and empathetic response to the user's mood, enabling authentic "emotional symbiotic care."

13.5.7 Industrial Landscape & Future Edge

As a global AI-in-healthcare As a global provider of medical AI infrastructure, AJJ Medtech is building a turnkey healthcare ecosystem spanning "algorithms to applications, and devices to the cloud." Within this ecosystem, the Huaxi humanoid elderly care robot serves as the "care terminal layer," translating medical AI capabilities into real-world deployment across homes and communities, and extending AI beyond clinical diagnosis into the sensory and emotional dimensions of everyday life.

With a world-first multifunctional architecture, cross-domain standards, a robust patent portfolio, and an ESG-driven business model, AJJ × Huaxi is not only a frontrunner in intelligent caregiving, but also a defining force in **the future of a human–robot integrated society.**

13.5.8 Strategic Significance & Value in Singapore

The deployment of AJJ × Huaxi in Singapore aligns with the national smart eldercare and medtech strategies, integrating government pilot programs, digital health platforms, and community care networks. Local deployment allows seamless integration with hospitals, community centers, and home care, enabling personalized health management and continuous care. Singapore's policy incentives—R&D tax relief, innovation fund support, and streamlined HSA registration—provide regulatory assurance and commercial sustainability, establishing a global benchmark for smart eldercare ecosystems in the region.

Value driver

Key questions

NO. Subsection

13 To the Future

13.5 The World's First Multi-Functional Embodied-Intelligence Humanoid Eldercare Robot: AJJ × Huaxi humanoid elderly care robot's Global Leadership Global Frontier Positioning:

13.5.9 The Strategic Importance and Value of Deployment in Southeast Asia

The deployment of the **AJJ × Huaxi humanoid elderly care robot.**

in Southeast Asia represents not only a technological export, but also a visionary initiative aligned with population transformation and sustainable social development.

Southeast Asia—particularly **Singapore, Malaysia, and Thailand**—is rapidly entering an ageing society. As the **regional hub for healthcare and eldercare innovation**, **Singapore** offers a robust regulatory framework (such as **HSA medical device certification**), an open international capital environment, and policy support that emphasizes **user experience and technology integration**.

Establishing operations here means that AJJ × Huaxi will not only gain entry into one of the world's most representative **smart eldercare demonstration markets**, but also form a **self-sustaining industrial ecosystem radiating across Southeast Asia**.

By establishing a **Regional Demonstration Centre** and **Intelligent Care Pilot Program** in Singapore, the project will generate multidimensional value:

- **Policy Value:** Aligns with the government's *Healthy ageing* and *Smart Nation* strategies, achieving collaborative innovation between the public and private sectors.
- **Economic Value:** Stimulates upstream and downstream industries such as **robotics manufacturing, AI algorithms, data services, and caregiving training**, forming a high–value-added regional industrial cluster.
- **Social Value:** Alleviates the shortage of caregiving manpower across Southeast Asia, enhances the quality of life for the elderly, and promotes **social inclusion and sustainable development**.
- **Brand Value:** Positions Singapore as a **global trust endorser**, shaping the authoritative image of the *"World's First Multi-Functional humanoid elderly care robot"*, while exporting the international tech narrative of **"Chinese Innovation + Singapore Trust."**

This strategic deployment signifies the evolution from **manufacturing excellence to global trust and application leadership**:
"From China's Innovation, Proven in Singapore, Scaling to the World."

The Future is Here, Care Revolutionized — AJJ × Huaxi embodied-intelligence humanoid elderly care robot Redefines Smart Eldercare

Value driver

Key questions

NO. Subsection

13 To the Future

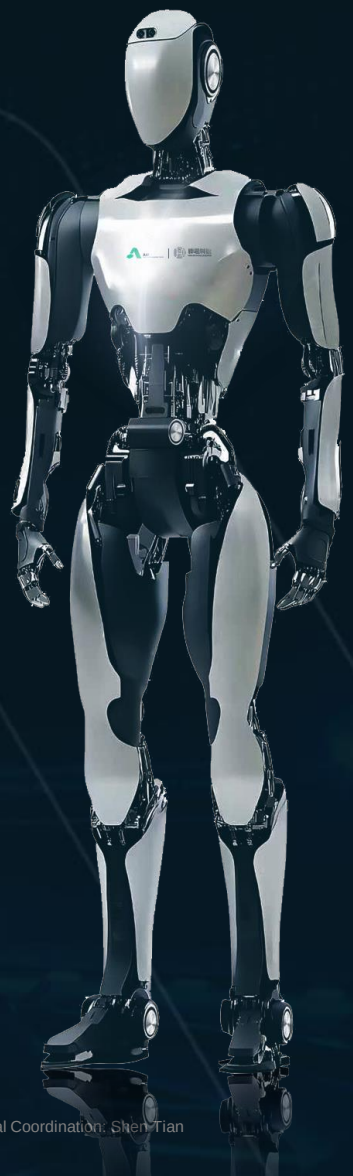
13.5 The World's First Multi-Functional Embodied-Intelligence Humanoid Eldercare Robot: AJJ × Huaxi humanoid elderly care robot's Global Leadership Global Frontier Positioning:

13.5.10 The Strategic Importance and Value of Deployment in Europe and North America

The strategic deployment of **AJJ × Huaxi Technology** in **Europe and North America** marks a pivotal step in the company's transformation from a regional leader to a **global standard-setter** in intelligent eldercare robotics.

These two regions not only possess the world's most **mature eldercare systems** and **medical regulatory frameworks** (such as **CE MDR** and **FDA Class II/III** medical device certifications), but also embody a **balanced value system** that integrates technological advancement with deep humanistic care.

Entering these markets signifies that AJJ × Huaxi's products and services will align with the **highest global standards** in safety, ethics, and data privacy—gaining access to the world's most trusted and rigorously regulated healthcare and eldercare ecosystems.



The Future is Here, Care Revolutionized — AJJ × Huaxi embodied-intelligence humanoid elderly care robot Redefines Smart Eldercare

Value driver

Key questions

NO. Subsection

13 To the Future

Summary:
AJJ × Huaxi Technology — Advantages and the New Global Care Intelligence Order

Core Value Dimensions

Standards and Certification Value:
Achieving **European CE** and **U.S. FDA** certifications represents not only a global endorsement of quality and safety, but also a “golden passport” for future market access across multiple jurisdictions.

Technology and Intelligent Manufacturing Value:
North America serves as a global innovation hub for **AI algorithms, bionic control, and human–robot interaction**, while Europe leads in **robot ethics and rehabilitation engineering**. Establishing deployments in these regions enables a closed-loop cycle of technology validation, algorithm co-development, and industrial upgrading.

Market and Brand Value:
With average ageing rates in Europe exceeding **20%**, and North America facing exceptionally high caregiving costs alongside severe labour shortages, both regions demonstrate strong acceptance and purchasing capacity for humanoid elderly care robots. Market entry will firmly position **AJJ × Huaxi** as a global leader in the high-end elderly care robotics segment.

Social and Cultural Value:
Anchored in the vision of **“technology redefining human care,”** deployments in Europe and North America will help shape a new social paradigm of human–robot coexistence, showcasing a global ethical direction centered on **human-centric technology**.

Global Strategic Structure:

China (Manufacturing Base) + Singapore (Validation Hub) + Europe & North America (Global Standards and Brand Pillars)

This tri-regional strategy marks AJJ × Huaxi Technology’s entry into a new era — From Regional Innovator to Global Leader.

“Global Care Intelligence: From the East, Redefining the Future of Humanity.”

< Back to Contents

XIV. AJJ × Huaxi Embodied-Intelligence Humanoid Elderly Care Robot Unified Terminology Dictionary

Global Unified Terms

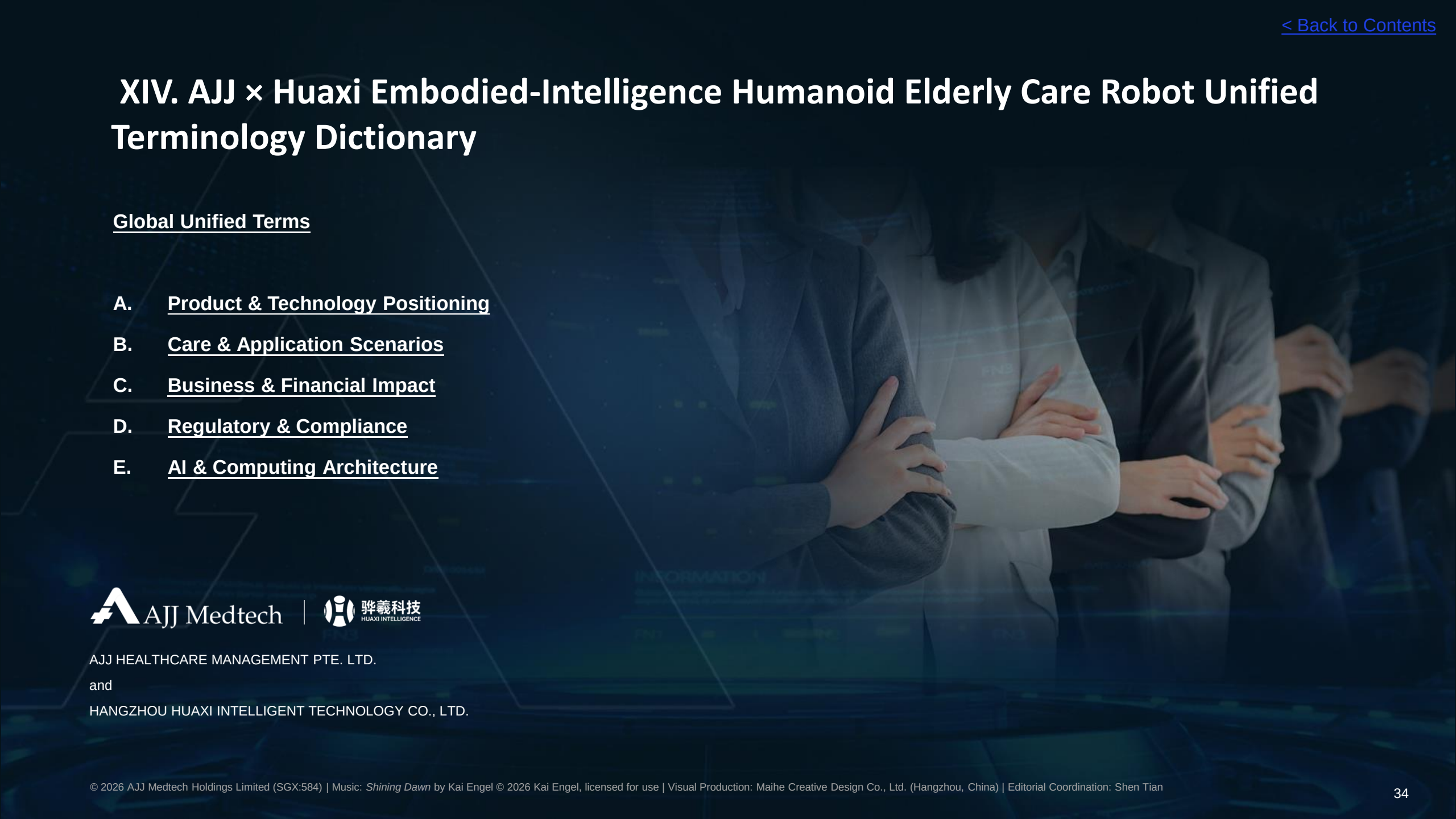
A. Product & Technology Positioning

B. Care & Application Scenarios

C. Business & Financial Impact

D. Regulatory & Compliance

E. AI & Computing Architecture



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Editors-in-Chief
Zhang Jian · Yan Chunqiu

Chief Writer / Screenwriter / Concept Development
Zhang Jian

Chapter Authors
Zhao Xin Alice — Chapter 2: *Market Landscape and Opportunities* ★
Ong Hon Hsiang William — Chapter 6: *Strategic Partnership Framework* ★
Zhang Jian / Zhao Wentao / Huang Huang John (Calculation Review) — Chapter 8: *ESG and Social Impact* ★
Ong Hon Hsiang William — Chapter 10: *Risk Management and Compliance* ★

Editorial Coordination & Proofreading
Shen Tian

Legal Counsel
Leu Yong Ren

Review & Approval
AJJ Medtech Board of Directors:
Zhang Jian · Zhao Xin Alice · Chong Eng Wee · Tan Lye Heng Paul · Toh Lim Kai

Art Director
Wang Xing

Media Art & Visual Design
Maihe Creative Design Co., Ltd. (Hangzhou, China)

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•**The robot system has defined functional limitations and cannot replace professional human care.**
•Certain user groups (e.g., **high-risk patients or highly dependent individuals**) may be unsuitable and require **additional supervision**.
•The **Human-in-the-loop principle remains mandatory**; all caregiving or medical operations require **qualified personnel oversight**.
•The system may experience single-point failures; it is designed to **fail gracefully**, minimising risk during abnormal events.
•Designed in alignment with ISO 13482 (Robots and robotic devices — Safety requirements for personal care robots) and IEC 63310

FORWARD-LOOKING STATEMENTS & COMPLIANCE

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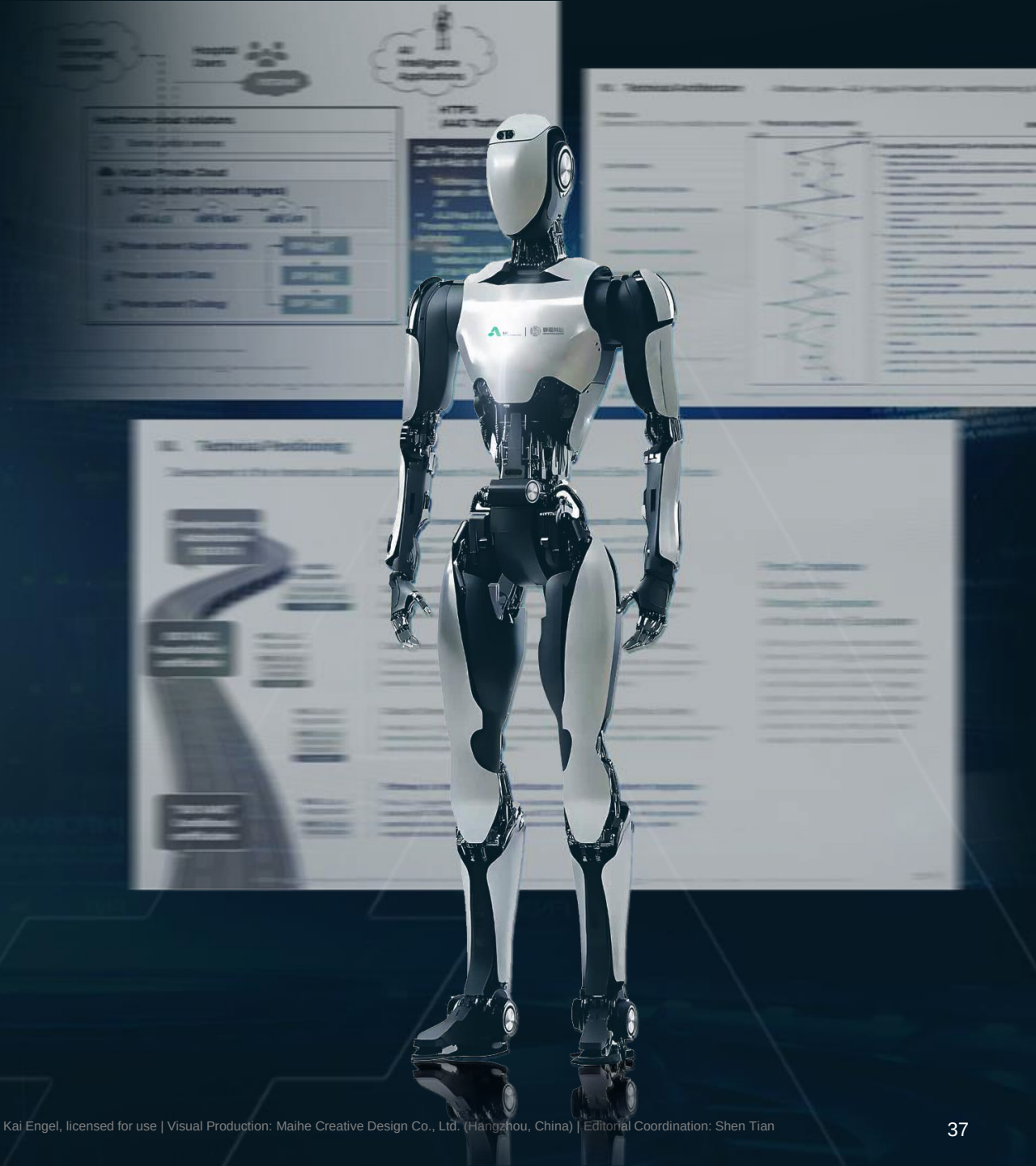

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