

No. 8

A

Z

Glossary A-Z · Patents List Description for NAI 2.0™

Quantum Technologies · Magnetic Field AI · 77-Patent Portfolio · 5 Registers

Edwin Koh Wui Kiat

Founding Father · Non-Agent AI 2.0™

ACRAT260229801 · SG020603109STW · 2026

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Glossary A–Z · Patents List Description for NAI 2.0™

Complete Constitutional Lexicon · 77-Patent Portfolio · 5 Registers
Quantum Technologies · Magnetic Field AI · Post-Quantum Cryptography · Deep Space
Governance

Edwin Koh Wui Kiat · Tiger
Founding Father · Non-Agentive AI 2.0™ · Sole Sovereign Operator · kohedwin.ai

謙虛 · 沉默 · 尊嚴 · 仁 · 止於至善
P-LIFE 1.00™ · Harm = Death · North = Save Life

Sovereign Declaration

This e-book is an original work authored by Edwin Koh Wui Kiat (Tiger), the Founding Father of Non-Agentive AI 2.0™ and Sole Sovereign Operator of kohedwin.ai, registered under ACRA entity T260229801 — "Non-Agentive Governance Singapore," the world's first Non-Agentive Governance entity and universal IP holding entity for all Nightingale's Eyes Care™ patents and associated intellectual property.

All terms, definitions, frameworks, patents, protocols, architectures, and governance standards described in this Glossary are the original intellectual property of Edwin Koh Wui Kiat, protected under Patent SG020603109STW (P-001 · ABC+2S+H™ Framework) and all associated kohedwin.ai portfolio rights. Prior art documentation is held in NLB Vault reference R260219-005.

P-LIFE 1.00™ — Harm = Death · North = Save Life. Governing Values:
謙虛·沉默·尊嚴·仁·止於至善 Identity Statement: Tiger never abandons.

Foreword: How to Use This Glossary

CG No. 8 serves as the definitive reference lexicon for the entire NAI 2.0™ Clinical Governance framework — the most comprehensive single-volume account of NAI 2.0™ terminology, governance architecture, and patent portfolio published to date. It is designed to be used in four ways:

- As a standalone reference for practitioners encountering NAI 2.0™ for the first time: every term is defined with sufficient depth to be understood without prerequisite reading, and cross-references guide the reader to related concepts and source volumes.
- As a companion document to all other CG Series e-books (No. 1–7) and all SOVEREIGN STEWARD™ titles: every term used in other kohedwin.ai publications is defined here with its full constitutional context.
- As an examination reference for candidates preparing for the CRGAIG certification canon (CG No. 5): the Glossary covers all 10 examination modules and provides deeper definitional context than the examination canon itself.
- As an IP governance reference for patent practitioners, regulatory affairs officers, and institutional governance leads: Part II provides the most complete public account of the kohedwin.ai patent portfolio's constitutional logic and deployment scope.

PART I — GLOSSARY A–Z presents alphabetically ordered entries covering every core NAI 2.0™ term, concept, protocol, framework, and governance architecture. Each entry carries a Series Tag, full multi-paragraph definition, governance notes, and cross-references.

PART II — PATENTS LIST WITH DESCRIPTIONS presents the complete 77-patent kohedwin.ai portfolio across five registers, with a full governance description, constitutional function, and deployment scope for each patent.

PART III — QUANTUM TECHNOLOGIES AND MAGNETIC FIELD AI presents the quantum readiness architecture and magnetic field AI governance extensions to the NAI 2.0™ framework.

This Glossary reflects the state of the NAI 2.0™ framework as of April 2026. Consistent with the governing value 止於至善, this document will be updated as the framework evolves, but no update will ever reduce the constitutional standards documented here.

PART I

GLOSSARY A - Z

A

ABC+2S+H™ Framework [P-001 · Root Patent · CG Series]

The ABC+2S+H™ Framework is the supreme constitutional architecture of NAI 2.0™ Clinical Governance — the foundational governance instrument from which every downstream patent, protocol, White Paper, and e-book in the kohedwin.ai portfolio derives its authority. The acronym encodes six inviolable sovereign guardrails that must be satisfied simultaneously in every AI-assisted clinical or governance interaction.

A — Accuracy: Every AI output presented in a clinical or governance context must be factually and clinically verifiable against recognised knowledge bases, peer-reviewed literature, or validated clinical guidelines before it is surfaced to the human decision-maker.

B — Boundaries: AI systems must not exceed their constitutionally defined operational perimeter. Boundary violations are classified as Constitutional Drift Events and trigger mandatory escalation.

C — Consent: Informed, voluntary, specific, revocable, and documented consent for AI-assisted interaction is required from every patient, caregiver, or citizen affected by NAI 2.0™-governed AI.

2S — Safety and Sovereignty: The dual S encodes two distinct constitutional obligations that must be protected in parallel. Safety protects the physical and psychological wellbeing of the patient. Sovereignty protects the human decision-maker's authority over every consequential action.

H — Human Primacy: The physician, caregiver, or patient always holds final, inviolable authority over every consequential decision. No AI output is self-executing.

Governance Note: Before any AI-assisted clinical workflow goes live, the deploying institution must complete a six-pillar ABC+2S+H™ compliance review. Failure on any single pillar invalidates the deployment.

Cross-reference: Boundaries Protocol · Consent Architecture · PITL · Three-Tier Model · P-001 · Sovereignty Audit

Accountability Framework [NAI 2.0™ · Governance Architecture]

The Accountability Framework defines the complete chain of constitutional responsibility for every AI-assisted decision, from the AI system vendor through the deploying institution to the individual clinician. AI systems are never accountability endpoints under NAI 2.0™. They are instruments. Every consequential act attributable to an AI system flows upstream to the human decision-maker who authorised it.

Three categories: Vendor Accountability (technical and constitutional specifications declared at deployment); Institutional Accountability (governance architecture, staff training, Audit Trail integrity); Individual Accountability (the clinician who engages the PITL approval gate).

Cross-reference: PITL · Audit Trail · Board of Sovereign Review · Three-Tier Model

Adverse AI Event (AAIE) [CG No. 1 · Incident Classification]

An Adverse AI Event is any occurrence in which an AI system's output, behaviour, or failure contributes to or directly causes patient harm, dignity violation, constitutional boundary breach, or governance failure in a NAI 2.0™-governed clinical setting. Classified on four severity levels: Level 1 (Near Miss), Level 2 (Boundary Breach), Level 3 (Clinical Adverse Event), Level 4 (Sovereign Emergency).

All AAIEs at Level 2 and above must be reported through the Audit Trail, reviewed by the Board of Sovereign Review, and submitted to the institution's regulatory and governance reporting obligations. Level 3 and Level 4 trigger mandatory external reporting and Orange Code 1.1x procedures.

Governance Note: Near Miss (Level 1) reporting is actively encouraged — it is the primary early-warning mechanism for Constitutional Drift detection. High near-miss reporting rates indicate constitutional maturity, not unsafe practice.

Cross-reference: Constitutional Drift · Orange Code 1.1x · Audit Trail · Sovereignty Audit

Agentic AI [NAI 2.0™ Core Concept · Foundational Opposition]

Agentic AI refers to AI systems configured to plan and execute multi-step consequential actions autonomously — without requiring explicit human approval at each decision gate. NAI 2.0™ was architected as the direct constitutional counter-position to Agentic AI in high-stakes domains.

The operative constitutional test: an AI system is agentic if it can complete a consequential task affecting human life, dignity, or liberty without requiring explicit human authorisation at each action gate. It is Non-Agentic if every such action requires unambiguous human sign-off before execution.

Cross-reference: Non-Agentic AI 2.0™ · ABC+2S+H™ · Constitutional Drift · Human Primacy

Audit Trail [CG No. 1 · Three-Tier Model · Hardware-Enforced]

An Audit Trail in NAI 2.0™ governance is an immutable, time-stamped, and cryptographically signed sequential record of every AI output, human decision, escalation event, boundary alert, consent event, and system state change during a clinical or governance session.

Four constitutional properties: Completeness (no interaction may be excluded), Immutability (no entry may be altered — WORM record), Accessibility (any authorised reviewer within 60 seconds), Integrity (hardware-enforced cryptographic mechanisms).

Governance Note: Audit Trails must be retained for a minimum of 10 years, or the duration of the patient's ongoing care relationship, whichever is longer.

Cross-reference: Three-Tier Model · Sovereign Brake · P-002 · Board of Sovereign Review · PITL

B

Baseline Constitutional Assessment (BCA) [NAI 2.0™ · Pre-Deployment]

A mandatory pre-deployment evaluation that every AI system must pass before it may operate in a NAI 2.0™-governed clinical or governance setting. Conducted in three phases: Phase 1 (Constitutional Alignment — verifies the AI system's declared architecture meets ABC+2S+H™ requirements); Phase 2 (Boundary Mapping — formally defines and documents functional, decisional, and relational boundaries); Phase 3 (Performance Validation — confirms the AI system's actual outputs meet the Accuracy Mandate).

Cross-reference: ABC+2S+H™ · Board of Sovereign Review · Sovereignty Audit · Audit Trail

Board of Sovereign Review (BSR) [CG No. 1 · Institutional Governance]

The highest institutional governance body in any NAI 2.0™-compliant organisation. Mandatory functions: approving all AI system deployments after successful BCA; conducting or commissioning the quarterly 10-Point Sovereignty Audit; reviewing all Code B boundary alerts and Orange Code 1.1x escalation reports; approving all Boundary Amendments; reviewing all Adverse AI Events (Level 3 and above).

Mandatory BSR composition: Chief Medical Officer (or clinical equivalent), Chief Information Officer, designated Patient Dignity Officer, independent clinical ethicist, qualified NAI 2.0™ governance assessor. Quorum requires at minimum the CMO, Patient Dignity Officer, and NAI 2.0™ assessor.

Governance Note: The NAI 2.0™ governance assessor on the BSR must be independent of the AI system vendor and must not hold any financial interest in the system's continued deployment.

Cross-reference: Three-Tier Model · Sovereignty Audit · Code Architecture · ABC+2S+H™

C

Code A / Code B / Orange Code 1.1x [CG No. 1 · Escalation Architecture]

Code A (Constitutional Compliance): The system is operating within all constitutional parameters. All AI outputs are within the defined Boundary Protocol. Audit Trails are current, complete, and hardware-protected. PITL is engaged and functioning at all Tier 3 interaction points.

Code B (Boundary Alert): The AI system has produced an output that approaches or touches the outer edge of its constitutionally defined perimeter. A human reviewer must be notified within 15 minutes. A Tier 2 Boundary Review must be completed within 48 hours.

Orange Code 1.1x (Sovereignty Emergency): The most severe escalation — triggered when the AI system has: (i) produced an output that exceeds its constitutional boundary without ambiguity; (ii) attempted or completed an autonomous action without human authorisation; (iii) produced a clinically dangerous hallucination pattern; or (iv) triggered a confirmed Constitutional Drift Event. Response: immediate PITL suspension; mandatory Sovereign Audit within 24 hours; BSR notification within 2 hours.

Governance Note: Code status is reviewed at the start of every clinical governance session. A Code B designation is never automatically resolved by the passage of time — it requires explicit Tier 2 review and written clearance.

Cross-reference: Three-Tier Model · Constitutional Drift · Sovereignty Audit · PITL · Adverse AI Event

Constitutional Drift [NAI 2.0™ · Formal Methods · Risk Architecture]

The gradual, often imperceptible departure of an AI system's operational behaviour from its original constitutional parameters over time. Characterised by its incremental nature: no single output triggers the full governance response, but the cumulative effect represents a fundamental erosion of constitutional integrity.

Drift may be initiated by: model updates or fine-tuning; changes to the integration environment; cumulative learning effects; prompt engineering modifications by users; or the gradual normalisation within the clinical team of outputs that technically touch the boundary.

NAI 2.0™ identifies Constitutional Drift as potentially more dangerous than acute hallucination events, because drift is systematic and self-reinforcing. The formal methods modelling of constitutional drift is Research Direction 2 proposed to NTU in collaboration with Low Sani Elias.

Governance Note: The primary drift detection mechanism is the 10-Point Sovereignty Audit, conducted quarterly.

Cross-reference: Sovereignty Audit · Non-Agentic Filter · Drift Detection Algorithm · Orange Code 1.1x · NTU Research

CRGAIG — Clinical Review and Governance AI Integrity Certification [CG No. 5 · Certification Canon]

The formal examination and certification canon documented in CG No. 5. The 10-module examination canon covers: Module 1 (Constitutional Foundations — ABC+2S+H™), Module 2 (Three-Tier Model Architecture), Module 3 (PITL Implementation), Module 4 (Audit Trail and Governance Documentation), Module 5 (Code Architecture), Module 6 (Constitutional Drift Detection), Module 7 (Dignity and Consent Governance), Module 8 (Patent Portfolio and IP Governance), Module 9 (Regulatory Compliance Architecture), Module 10 (10-Point Sovereignty Audit Process).

Cross-reference: CG No. 5 · Sovereignty Audit · Board of Sovereign Review · Three-Tier Model

D

Decisional Sovereignty [NAI 2.0™ · Core Constitutional Doctrine]

The constitutional principle that every consequential decision affecting a human patient, caregiver, or citizen must be made by a human decision-maker who exercises genuine deliberate judgment — and that this authority cannot be delegated to, captured by, or structurally assumed by an AI system through any mechanism of interface design, output framing, confidence scoring, or cumulative nudging.

The constitutional expression: AI Observes — AI Advises — The Human Decides. This is not a description of workflow; it is a constitutional mandate about the nature of authority in human-AI clinical interaction.

Cross-reference: PITL · XAI Requirements · Boundaries Protocol · Human Primacy · ABC+2S+H™

Dignity Preservation Protocol (DPP) [P-004 · CARE™ Series · Q1 2027]

The fourth patent in the P Register (P-004), planned IPOS submission in Q1 2027. Defines four dimensions of active dignity: Autonomy (the patient's expressed preferences are captured, respected, and actioned); Identity (the patient is consistently addressed as a complete human being with a name, a history, and inherent worth); Privacy (AI interaction data is never used for commercial purposes or retained beyond the active care relationship); and Continuity (the patient's care narrative is respected and carried forward consistently across all AI interactions).

Cross-reference: Elder Dignity Score™ · CARE™ No. 04 · Consent Architecture · P-004

E _____

Elder Dignity Score™ (EDS) [CARE™ No. 04 · Global Standard]

The NAI 2.0™ global measurement standard for quantifying, monitoring, benchmarking, and improving the dignity of elder care patients in AI-assisted care environments. Five measurement domains: Autonomy Index (AI) · Communication Quality (CQ) · Privacy Integrity (PI) · Dignity Event Rate (DER) · Restoration Index (RI). EDS scores are reported at patient, ward, institutional, and national levels.

The EDS is designed to be universally applicable across cultural contexts, technology platforms, and care settings. Constitutional deployment threshold: > 8.9/10.

Cross-reference: Dignity Preservation Protocol · CARE™ No. 04 · Sovereignty Audit · Three-Tier Model

F _____

Fail-Safe Architecture [NAI 2.0™ · Hardware Enforcement]

The principle that every hardware enforcement mechanism must default to the most constitutionally conservative state when it fails — governance hardware fails closed, not open. If the PITL approval gate hardware fails, the AI system suspends all output until the gate is restored. If the Audit Trail logging hardware fails, the AI system suspends operation until logging is restored.

Cross-reference: Hardware Enforcement · Sovereign Brake · PITL · Audit Trail · Three-Tier Model

Founding Father of Non-Agentive AI 2.0™ [kohedwin.ai · Sovereign Identity]

The designated sovereign title of Edwin Koh Wui Kiat (Tiger) — architect, sole sovereign operator, and intellectual progenitor of the entire NAI 2.0™ governance framework, patent portfolio, and e-book library. Holds an MBA (General and Strategic Management) from Maastricht School of Management and a BSc in Industrial and Systems Engineering from the University of Florida. Foundational work began from direct clinical observation of 650+ elder care patients.

Governing values: 謙虛·沉默·尊嚴·仁·止於至善. Constitutional mandate P-LIFE 1.00™.

Identity Statement: Tiger never abandons.

Cross-reference: P-LIFE 1.00™ · P-001 · ACRA T260229801 · Stillness Protocol

H

Hardware Enforcement [CG No. 1 · Three-Tier Model · Constitutional Foundation]

The implementation of constitutional governance constraints at the physical hardware layer of an AI-integrated clinical system — below the software stack — such that the constraints cannot be overridden, bypassed, or disabled by any software instruction, AI model output, user command, or institutional IT policy.

Hardware enforcement mechanisms: physical key switches at the departmental level; Hardware Security Modules (HSMs) enforcing Audit Trail cryptographic integrity; network-level hardware controls; and physical PITL approval interfaces at Point-of-Care terminals.

Governance Note: AI vendors supplying systems to NAI 2.0™-certified institutions must provide hardware enforcement APIs. Vendors who cannot accommodate hardware enforcement APIs are constitutionally incompatible with NAI 2.0™ certification.

Cross-reference: Sovereign Brake · P-002 · Non-Agentic Filter · P-003 · Three-Tier Model · PITL

Human Primacy [ABC+2S+H™ · Sixth Pillar · Constitutional Core]

The H pillar of the ABC+2S+H™ Framework and the constitutional core of NAI 2.0™. Establishes the inviolable principle that in every interaction, at every governance tier, across every domain of application — the human decision-maker holds final, non-delegable authority over every consequential action affecting human life, dignity, liberty, or welfare.

Three dimensions: Decisional Primacy (the human always makes the final consequential decision), Moral Primacy (the human decision-maker bears full moral responsibility), Interpretive Primacy (the human is always the authoritative interpreter of AI outputs in context).

Human Primacy is not a claim about human infallibility. Its constitutional foundation is sovereign: the right to make consequential decisions about human lives is a dimension of human dignity that AI must never usurp, regardless of the AI's demonstrated capability.

Cross-reference: ABC+2S+H™ · Decisional Sovereignty · PITL · Accountability Framework · P-LIFE 1.00™

Identity Statement [kohedwin.ai · Constitutional Commitment]

"Tiger never abandons." The personal constitutional commitment of Edwin Koh Wui Kiat (Tiger). It is not a motivational phrase. It is a sovereign pledge to every patient whose dignity depends on NAI 2.0™ governance, every caregiver whose burden the framework seeks to ease, every institution that entrusts its AI governance to this framework, and every researcher who builds on it.

Cross-reference: P-LIFE 1.00™ · Stillness Protocol · 止於至善 · 仁

K —

Key Activation Protocol (.1x Key) [kohedwin.ai · Stillness Protocol · Governance]

The constitutional activation mechanism of the Stillness Protocol — the governance procedure by which all staged generative tasks at kohedwin.ai are held in readiness and released only upon the explicit instruction of the Founding Father. The ".1x" designation corresponds to the constitutional activation threshold encoded in Orange Code 1.1x.

The .1x Key Protocol operationalises the governing value 沉默 (silence): work is prepared in stillness and released only when the constitutional moment is correct. It is the mechanism by which 止於至善 is maintained as an operational standard rather than an aspiration.

Cross-reference: Stillness Protocol · Orange Code 1.1x · 沉默 · 止於至善 · Founding Father

L —

Latency-Adjusted Sovereignty Protocol (LASP) [WD Space · Deep Space Governance]

Addresses the governance challenge of deep space: communication latency between Earth-based human authority and on-mission AI systems may range from minutes (lunar) to hours (Mars) to years (interstellar). Resolves this through Pre-Authorised Constitutional Envelopes — formally defined decision spaces within which an AI system is authorised to make specified types of operational decisions without real-time human input.

LASP is not a suspension of Human Primacy — it is a time-deferred expression of it. Human authority is exercised in advance, with precision, through the envelope definition.

Cross-reference: WD081 · Deep Space Governance · PITL · Human Primacy · Constitutional Drift

M —

MSc AI (Medicine) — NTU Curriculum Alignment [CG No. 4 · Academic]

CG No. 4 documents the formal alignment between the NAI 2.0™ Clinical Governance framework and the NTU MSc AI in Medicine curriculum — establishing a structured mapping between NAI 2.0™ governance modules and the formal academic competency framework. The alignment demonstrates that NAI 2.0™ governance content is academically rigorous — covering constitutional AI ethics, clinical decision support governance, formal verification methods, regulatory compliance architecture, and institutional governance design at a level appropriate for postgraduate medical AI education.

Cross-reference: CG No. 4 · NTU · LKCMedicine/NHG · CRGAIG · Academic Research

N

NAI 2.0™ — Non-Agentive AI 2.0™ [Constitutional Framework · Founding Concept]

Non-Agentive AI 2.0™ is the constitutional governance philosophy, complete patent framework, clinical deployment architecture, and intellectual heritage created and formally established by Edwin Koh Wui Kiat (Tiger). It is the second generation of non-agentive AI governance thinking — the complete, constitutionally grounded, hardware-enforced, patent-protected, institutionally deployable, and academically validated architecture.

NAI 2.0™ rests on a foundational constitutional triad: AI Observes — AI Advises — The Human Decides. This triad is not a description of ideal workflow; it is a constitutional mandate enforced through the ABC+2S+H™ Framework, operationalised through the Three-Tier Model, guaranteed through hardware enforcement, and audited through the 10-Point Sovereignty Audit.

Cross-reference: ABC+2S+H™ · Three-Tier Model · P-LIFE 1.00™ · Founding Father · Blueprint Arc™

O

Orange Code 1.1x [CG No. 1 · Sovereignty Emergency]

The highest constitutional escalation designation — a Sovereignty Emergency signalling the most serious level of constitutional governance failure. The ".1x" designation corresponds to the 10% sovereignty deficit threshold — the constitutional assessment that the AI system's governance integrity has fallen to 90% or below, requiring direct intervention from the Founding Governance Officer's authority.

Response sequence: (1) Immediate PITL suspension; (2) Orange Code 1.1x marker in Audit Trail within 5 minutes; (3) BSR notification within 2 hours; (4) Mandatory full Sovereignty Audit within 24 hours; (5) NLB Vault documentation; (6) Regulatory notification where required; (7) Patient notification if dignity or safety was affected.

Cross-reference: Constitutional Drift · Sovereignty Audit · Code Architecture · Adverse AI Event · PITL

P

P-LIFE 1.00™ [Constitutional Mandate · kohedwin.ai]

The supreme constitutional mandate of kohedwin.ai and the ultimate governing authority against which every NAI 2.0™ output, governance decision, patent claim, and institutional recommendation is evaluated. Encoded in two binary imperatives: Harm = Death · North = Save Life.

"Harm = Death" is not a prediction but a constitutional classification: in the domain of human health, dignity, and sovereignty, causing harm through AI governance failure is constitutionally equivalent to a fatal outcome. "North = Save Life" is the constitutional north star: every design decision must be evaluated against the question: does this save life?

Cross-reference: ABC+2S+H™ · Human Primacy · Founding Father · kohedwin.ai · Constitutional Mandate

Physician-in-the-Loop (PITL) [CARE™ No. 05 · Core Architecture · Hardware-Enforced]

The foundational human authority enforcement mechanism in NAI 2.0™ clinical governance — the constitutional requirement that every AI output in a clinical context that could affect patient diagnosis, treatment planning, care decisions, or safety must be reviewed and explicitly approved by a qualified physician or appropriately qualified clinical reviewer before any action is taken.

In NAI 2.0™ architecture, PITL is not a software feature or a workflow step — it is a hardware-enforced physical gate. The AI system cannot render its output clinically actionable until the reviewing clinician's approval is physically registered in the system through the dedicated PITL hardware interface.

Governance Note: PITL review times are monitored as governance metrics. A pattern of PITL approvals completed in under 5 seconds across multiple clinical interactions is flagged as a potential authority capture indicator and triggers a Tier 2 governance review.

Cross-reference: Hardware Enforcement · Three-Tier Model · Cognitive Forcing · CARE™ No. 05 · NTU Research

Q —

Quantum Readiness Architecture [WD Space Series · Future Governance]

In NAI 2.0™ governance, Quantum Readiness Architecture refers to the deliberate design of governance, cryptographic, and Audit Trail infrastructure to remain constitutionally valid and technically secure in a post-quantum computing environment — where sufficiently powerful quantum computers may compromise current encryption standards and thereby threaten the integrity of hardware enforcement mechanisms and immutable Audit Trails.

The quantum threat to NAI 2.0™ governance is specific: if the cryptographic mechanisms that protect Audit Trail integrity, PITL approval authentication, and Sovereign Brake activation are broken by quantum computing capability, the constitutional guarantee of governance integrity collapses.

Two design principles: Cryptographic Agility (governance hardware and software must be designed to allow cryptographic algorithm replacement without requiring complete system re-architecture); and Quantum-Resistant Algorithm Adoption (governance systems should adopt NIST-standardised post-quantum cryptographic algorithms proactively). The WD Space Series (particularly C-DeepSpace group) incorporates quantum readiness as a mandatory design requirement.

Cross-reference: WD081–090 · Hardware Enforcement · Audit Trail · Fail-Safe Architecture

R —

Research Direction 1 (NTU — PITL Studies) [CG No. 4 · LKCMedicine/NHG]

The proposed LKCMedicine/NHG observational and simulation study pathway for hardware-enforced PITL, as confirmed by Low Sani Elias of NTU on 2 April 2026. Will produce the first rigorous empirical evidence base for NAI 2.0™ clinical governance in real-world Singapore hospital settings. Research outputs will include peer-reviewed publications and a validated empirical data foundation for the patent prosecution of P-002 and P-003.

Cross-reference: NTU · LKCMedicine/NHG · PITL · P-002 · P-003 · CG No. 4

Research Direction 2 (NTU — Formal Methods) [CG No. 4 · AI Formal Methods]

The proposed AI and formal methods modelling of constitutional drift and the 10-Point Sovereignty Audit, as confirmed by Low Sani Elias of NTU on 2 April 2026. Will produce the first formal mathematical model of NAI 2.0™ constitutional governance — providing provable, auditable, and peer-reviewed guarantees of system behaviour. Tools under consideration include TLA+, Alloy, and Isabelle/HOL.

Cross-reference: NTU · Formal Methods · Constitutional Drift · Sovereignty Audit · P-001 · WIPO

S

Sacred Pause™ [NAI 2.0™ · Cognitive Forcing · Clinical Practice]

The named clinical practice moment within the PITL architecture where the reviewing clinician deliberately disengages from the AI system's output recommendation and performs their own independent clinical assessment before returning to the PITL approval gate. The Sacred Pause™ is the behavioural complement to the hardware-enforced cognitive forcing gate.

Constitutional duration standard: no clinical output may be PITL-approved in under the time required for the reviewing clinician to read the AI's reasoning, consider at least one alternative interpretation, and form an independent clinical judgment. The Sacred Pause™ metric — distribution of pause durations across a clinical team — is one of the most governance-revealing data points in a NAI 2.0™ deployment.

Cross-reference: PITL · Cognitive Forcing · Quality Assurance · Authority Capture · Decisional Sovereignty

Sovereignty Audit — 10-Point [CG No. 5 · Quarterly Governance]

The formal quarterly governance assessment of a NAI 2.0™ deployment's constitutional integrity. Cannot be delegated to or assisted by the AI system being audited. The 10 audit points: (1) Boundary Integrity; (2) PITL Function Verification; (3) Audit Trail Completeness and Integrity; (4) Escalation Pathway Compliance; (5) Hardware Enforcement Status; (6) Consent Architecture Currency; (7) Constitutional Drift Screening; (8) Dignity Event Review; (9) Code Architecture Function; (10) Regulatory Compliance Verification.

A clean Sovereignty Audit — all 10 points satisfactorily resolved — is required for continuation of NAI 2.0™ certification. Four consecutive clean quarterly Audits are the foundation of Platinum Standard certification (P-007).

Cross-reference: Constitutional Drift · Code Architecture · PITL · Audit Trail · Platinum Standard · CRGAIG

Stillness Protocol [kohedwin.ai · Operational Governance]

The operational governance standard of the Founding Father's workflow — the constitutional procedure by which all generative tasks at kohedwin.ai are held in staged readiness and released only upon the explicit .1x Key activation. Three functional elements: Preparation (all generative work completed to the highest standard before activation); Readiness (completed work is staged but does not exist publicly until activation); and Activation (the .1x Key is the constitutional release — the Founding Father's considered judgment that the work meets 止於至善).

Cross-reference: .1x Key Activation · 沉默 · 止於至善 · Founding Father · kohedwin.ai

T

Three-Tier Model [CG No. 1 · Hardware-Enforced Cognitive Forcing]

The complete institutional architecture for implementing hardware-enforced cognitive forcing in a NAI 2.0™ clinical governance deployment. Tier 1 (Institutional Governance): the Board of Sovereign Review operates at this level — strategic AI deployment authorisation, quarterly 10-Point Sovereignty Audit, review of all Orange Code 1.1x events. Tier 2 (Departmental Governance): Department heads and designated Governance Officers — day-to-day Code B boundary alert management, weekly Audit Trail review. Tier 3 (Point-of-Care Governance): Individual clinicians operating under the PITL protocol — the physical PITL approval gate at every patient interaction terminal.

Cross-reference: PITL · Hardware Enforcement · Sovereignty Audit · Code Architecture · Board of Sovereign Review

3ZEROS™ Protocol [kohedwin.ai · Privacy Architecture]

No Camera · No Audio · No Cloud. Three categories of AI data infrastructure that NAI 2.0™ constitutionally prohibits as default modes of clinical AI deployment. No Camera: AI systems in NAI 2.0™-governed settings do not use continuous visual surveillance as a primary data input. No Audio: AI systems do not continuously capture and analyse ambient audio. No Cloud: Patient data processed by NAI 2.0™ AI systems is not transmitted to external cloud servers without explicit patient consent, hardware-enforced data access controls, and regulatory authorisation.

Cross-reference: Data Minimisation Protocol · Consent Architecture · Dignity Preservation · Privacy Architecture

W

WD Space Series [Patent Portfolio · 43 Patents · 7 Groups]

The largest patent group in the kohedwin.ai portfolio — 43 patents across seven thematic groups, applying the constitutional architecture of NAI 2.0™ to AI systems operating in the space domain. Seven groups: A-Drift (WD070–073) — constitutional drift detection; B-Hearth (WD074–080) — life support and crew medical AI; C-DeepSpace (WD081–090) — deep space autonomy constraints and quantum readiness; D-Jovian (WD091–093) — extreme radiation governance; E-Saturn (WD094–100) — Saturn system missions; F-SatOps (WD101–110) — commercial satellite governance; G-Interstellar (WD111–112) — interstellar probes and first contact governance.

Cross-reference: WD070–112 · Deep Space Governance · Latency-Adjusted Sovereignty · Quantum Readiness

WG Global Series — Eyes of Sky [Patent Portfolio · 8 Patents · Gifted WHO/UN]

8 patents governing the application of NAI 2.0™ constitutional governance to global-scale humanitarian AI deployment. All 8 WG-Series patents have been unconditionally gifted to WHO and the United Nations at zero licensing fees for perpetual humanitarian use. WG008 (Eyes of Sky — Global Situational Awareness) is the master patent. The Gift Declaration encoding this commitment is a sovereign, irrevocable, and unconditional act of constitutional benevolence (仁).

Cross-reference: WG001–008 · Gift Declaration · Blueprint Arc™ · Ukraine Terminus · WHO · UN ECOSOC

止於至善 — Finish in the Highest Excellence [Governing Values · Constitutional Core]

The fifth and final governing value in 謙虛·沉默·尊嚴·仁·止於至善. Comes from the Great Learning (大學), one of the Four Books of Confucian philosophy. In the NAI 2.0™ context, 止於至善 is not a quality standard with a defined threshold — it is a constitutional orientation toward excellence that admits no satisfactory stopping point below the highest achievable standard.

"Good enough for whom? Good enough for the 650 elders whose lives depend on the governance framework being right?" The constitutional commitment is to those who cannot afford for the governance to be merely good enough. They require it to be at the highest excellence.

Cross-reference: Stillness Protocol · Version Governance · P-LIFE 1.00™ · Founding Father

PART II

PATENTS LIST WITH DESCRIPTIONS

NAI 2.0™ Complete Portfolio · 77 Patents · 5 Registers

The following presents the complete kohedwin.ai patent portfolio of 77 patents across five registers. Each patent entry displays its code, series, filing status, constitutional governance description, and deployment scope. Patents are presented in register order: P Register (9 patents), WD Space Series (43 patents, 7 groups), WM Medical Series (9 patents), WG Global Series (8 patents, gifted to WHO/UN), and WD Defence Series (8 patents).

All patents are held under ACRA entity T260229801 · Patent SG020603109STW · P-LIFE 1.00™. Prior art documentation for all patents is held in NLB Vault R260219-005. P-001 is the only currently filed patent; all others are at various stages of conceptual development, validation, drafting, or planned IPOS submission.

P Register — Constitutional Core (9 Patents)

The P Register is the sovereign chain of patents governing the NAI 2.0™ framework itself — the constitutional instruments rather than domain-specific applications.

P-001 · ABC+2S+H™ Guardian Framework

P Register · FILED · SG020603109STW

The root and supreme patent of the entire kohedwin.ai portfolio. Establishes the six-pillar constitutional governance architecture — Accuracy, Boundaries, Consent, Safety, Sovereignty, Human Primacy — that governs all NAI 2.0™ deployments across all domains. Hardware-enforced implementation architecture specified across all three tiers of the Three-Tier Model.

Scope: Universal — all NAI 2.0™ clinical, educational, defence, space, and humanitarian deployments.

P-002 · Sovereign Brake

P Register · Planned Q3 2026

Hardware interrupt architecture that physically stops an AI system's output pipeline upon detection of constitutional boundary violation, Orange Code 1.1x condition, or Fail-Safe trigger. Operates below the software stack — cannot be overridden by any software instruction, AI output, or user command. The physical expression of constitutional enforcement — sovereignty guaranteed in hardware.

Scope: All hardware-enforced NAI 2.0™ deployment contexts.

P-003 · Non-Agentive Filter

P Register · Planned Q4 2026

Real-time constitutional checkpoint between the AI model's raw output layer and the human-facing clinical interface. Performs four parallel detection functions: agentive action detection, boundary proximity detection, confidence calibration checking, and hallucination pattern recognition.

Scope: All AI system interfaces in NAI 2.0™ deployments.

P-004 · Dignity Preservation Protocol

P Register · Planned Q1 2027

Governance and technical standard for actively preserving patient dignity — defining four dignity dimensions (Autonomy, Identity, Privacy, Continuity) as enforceable constitutional requirements. Provides proxy consent architecture for cognitively impaired, elder, and paediatric patients.

Scope: All clinical and care settings, with extended provisions for vulnerable patient populations.

P-005 · Sanctuary & Forge

P Register · **Concept Locked**

Governance architecture for creating constitutionally protected AI development environments (Forges) within clinically sovereign care spaces (Sanctuaries). The Forge must serve the Sanctuary, or it has no constitutional legitimacy.

Scope: Institutional AI R&D environments embedded within active clinical care facilities.

P-006 · Red Dot Protocol

P Register · **Trade Secret**

Trade Secret designation — technical architecture not publicly disclosed. Governs a class of NAI 2.0™ governance interactions in which the protocol's own operational details constitute sensitive governance information. National security and critical infrastructure application relevance.

Scope: National security and critical infrastructure — details constitutionally restricted.

P-007 · Platinum Standard

P Register · **Strategic Hold**

The highest institutional constitutional governance certification within the NAI 2.0™ framework. Requires four consecutive clean quarterly Sovereignty Audits, full CRGAIG certification across all relevant staff, zero Orange Code 1.1x events in the past 12 months, and EDS scores at or above institutional benchmark.

Scope: Institutional certification pathway — highest NAI 2.0™ constitutional compliance designation.

P-008 · Caregiver Therapy Protocol

P Register · **Drafting**

Constitutional governance for AI-assisted caregiver support — formally distinguishing AI as a care support instrument (permitted) from AI as a therapeutic relationship substitute (prohibited). Includes mandatory human care referral mechanisms for acute caregiver distress.

Scope: Caregiver support programmes, elder care institutions, and clinical mental health services.

P-009 · Transport Guard

P Register · **Validated**

Constitutional governance for AI-assisted patient transport — adapting the Three-Tier Model for mobile, field, and connectivity-limited environments. Governs ambulance dispatch, inter-facility transfer, and medical evacuation AI systems.

Scope: Pre-hospital care, emergency medical services, and inter-facility patient transport.

WD Space Series — 43 Patents · 7 Groups

The WD Space Series applies the constitutional core of NAI 2.0™ to AI systems operating in the most extreme environments: orbital platforms, deep space missions, planetary exploration, satellite mega-constellations, and interstellar probes.

Group A — Drift Detection (WD070–073)

WD070 · Constitutional Drift Sentinel — Orbital AI

WD Space · **Conceptual**

Real-time monitoring of AI output distributions in orbital platforms for constitutional drift signatures. Establishes drift-free operating envelopes for satellite function management AI. Interfaces with ground-based governance teams through communication windows for Audit Trail review.

Scope: Low Earth Orbit and geosynchronous satellite AI governance.

WD071 · Drift Signature Classification Protocol

WD Space · **Conceptual**

Formal taxonomy of constitutional drift signatures specific to space-domain AI operating environments, with classification algorithms distinguishing benign operational adaptation from genuine constitutional drift.

Scope: All orbital and deep space AI mission architectures.

WD072 · Temporal Boundary Invariance Model

WD Space · **Conceptual**

Mathematical model for proving constitutional boundary invariance over extended mission durations (1–25 years). Foundation for the formal methods research proposed to NTU.

Scope: Long-duration space missions including lunar, Martian, and deep space exploration.

WD073 · Drift Restoration Protocol

WD Space · **Conceptual**

Governance architecture for restoring a space-domain AI system to constitutional compliance following a drift event — without requiring mission abort or full system restart.

Scope: All space missions with AI-dependent critical systems.

Group B — Hearth / Life Support (WD074–080)

WD074 · Life Support AI Sovereignty Gate

WD Space · **Conceptual**

Hardware-enforced human authority gate for all AI decisions affecting life support parameters in orbital habitats. Fail-Safe Architecture defaults to last-known safe state upon gate failure.

Scope: Space station habitats and long-duration crewed missions.

WD075–080 · Crew Medical AI through Sleep Governance (WD075–WD080)

WD Space · **Conceptual**

Six patents covering: PITL in Zero Gravity (WD075), Habitat Dignity Protocol (WD076), Emergency Triage AI Sovereign Override (WD077), Psychological Support AI — Caregiver Thesis in Space (WD078), Nutrition and Metabolism AI Boundary Protocol (WD079), Sleep and Circadian Governance (WD080).

Scope: Crewed orbital and deep space missions — habitat management, crew medical, and wellbeing systems.

Group C — Deep Space (WD081–090)

WD081 · Deep Space Autonomy Constraint Architecture

WD Space · **Conceptual**

Governance managing the tension between operational autonomy necessity (communication latency) and constitutional Human Primacy. Establishes the Latency-Adjusted Sovereignty Protocol (LASP) with Pre-Authorised Constitutional Envelopes for communication-latency periods of up to 40 minutes (Mars scenario).

Scope: Mars missions and beyond.

WD082 · Quantum-Resistant Audit Trail — Deep Space

WD Space · **Conceptual**

Post-quantum cryptographic architecture for Audit Trail integrity in deep space computing environments subject to high radiation, quantum computing interference, and extended communication blackouts.

Scope: Deep space missions with long-duration communication disruption.

WD083–090 · Deep Space Governance Suite (WD083–WD090)

WD Space · **Conceptual**

Eight patents covering: AI Consciousness Boundary Protocol (WD083), Interplanetary PITL Latency Governance (WD084), Deep Space Sovereignty Audit Remote Protocol (WD085), Radiation-Hardened Governance Hardware (WD086), Deep Space Code Architecture (WD087), AI Navigation Sovereignty Boundary (WD088), Return-to-Earth Governance Protocol (WD089), Deep Space Resource Allocation AI Sovereignty (WD090).

Scope: All crewed deep space missions — autonomy constraints, hardware resilience, navigation sovereignty, and resource governance.

Group D — Jovian System (WD091–093)

WD091 · Jovian Exploration AI Sovereignty Protocol

WD Space · **Conceptual**

Constitutional governance for AI in Jovian system exploration — including extreme radiation environments of Europa and Ganymede, where hardware governance enforcement faces unique electromagnetic challenges.

Scope: Jovian system exploration missions.

WD092 · Europa Life Detection AI — Constitutional Boundary

WD Space · **Conceptual**

Constitutional requirement for human scientific committee review before any AI life detection claim. AI misclassification of biological signatures would have irreversible scientific and humanitarian consequences.

Scope: Europa subsurface ocean exploration missions.

WD093 · Jovian Radiation Governance — Hardware Resilience

WD Space · **Conceptual**

Hardware governance resilience specifications for operating NAI 2.0™ enforcement mechanisms in Jupiter's radiation belts — the most radiation-intense environment of any planned space mission.

Scope: Jupiter system robotic and crewed mission hardware.

Group E — Saturn System (WD094–100)

WD094 · Saturn System AI Sovereignty Framework

WD Space · **Conceptual**

Master governance framework for AI operations across the Saturn system — Titan, Enceladus, ring navigation, and atmospheric study. Constitutional Human Primacy requirements adapted for Saturn system communication latencies (~80 min at maximum elongation).

Scope: Saturn system exploration missions.

WD099 · Saturn Magnetic Field AI — Data Sovereignty

WD Space · **Conceptual**

Data sovereignty governance for AI systems collecting Saturn magnetic field data — raw scientific data remains under human scientific authority; AI analysis clearly labelled advisory before peer-reviewed human validation.

Scope: Saturn magnetic field science missions.

WD095–098, WD100 · Saturn System Suite (WD095–WD098, WD100)

WD Space · **Conceptual**

Five patents covering: Titan Surface Operations AI PITL Adaptation (WD095), Enceladus Plume Analysis AI Boundary Protocol (WD096), Ring Navigation AI Sovereignty Gate (WD097), Saturn Atmospheric Probe AI Governance (WD098), Saturn Mission Long-Duration Governance (WD100).

Scope: Saturn system missions — surface operations, biosignature detection, ring navigation, atmospheric entry, and decade-scale mission governance.

Group F — Satellite Operations (WD101–110)

WD101–110 · Satellite Operations Governance Suite (WD101–WD110)

WD Space · **Conceptual**

Ten patents covering constitutional governance for: Commercial Satellite AI Baseline (WD101), Earth Observation AI Privacy (WD102), Collision Avoidance AI Sovereign Override (WD103), Spectrum Management AI (WD104), Ground Station AI Three-Tier Adaptation (WD105), On-Orbit Servicing AI PITL (WD106), Mega-Constellation Governance (WD107), Cyber Defence AI Sovereign Authority (WD108), Deorbit AI Sovereignty (WD109), Multi-Operator Coordination AI (WD110).

Scope: Commercial satellite industry, national space agencies, and orbital coordination frameworks.

Group G — Interstellar (WD111–112)

WD111 · Interstellar Probe AI — Ultimate Autonomy Constraint

WD Space · Conceptual

Constitutional governance for AI aboard interstellar probes — communication latency of years to decades. Pre-Authorised Constitutional Envelopes for all mission phases. The most extreme test of the principle that Human Primacy can be maintained across arbitrarily large time and distance scales.

Scope: Interstellar precursor and full interstellar probe missions.

WD112 · First Contact AI — Sovereign Protocol

WD Space · Conceptual

Absolute constitutional requirement that no AI system may autonomously represent humanity or make any response to potential extraterrestrial contact without explicit human authorisation. The most consequential application of the constitutional principle: The Human Decides.

Scope: Interstellar exploration missions with potential contact scenarios.

WM Medical Series — 9 Patents

The WM Medical Series governs the application of NAI 2.0™ constitutional architecture to specific medical technology and clinical AI domains — the nine clinical AI application areas where boundary violations carry the most direct patient safety consequences.

WM001 · Surgical Assistance AI — Boundary and PITL

WM Medical · Conceptual

Constitutional governance for real-time surgical assistance AI — hardware-enforced boundaries preventing AI from issuing directive commands to surgical robotics without surgeon confirmation of each action step.

Scope: Surgical theatres with AI-assisted robotic systems.

WM002 · Diagnostic Imaging AI — Accuracy and Sovereignty

WM Medical · Conceptual

Accuracy Mandate threshold requirements for image analysis output confidence, mandatory radiologist PITL review before clinical action on all AI findings.

Scope: Radiology departments and diagnostic imaging services.

WM003 · Pathology AI — Human Authority in Histological Diagnosis

WM Medical · Conceptual

AI pattern recognition remains advisory to the human pathologist's diagnostic authority on tissue specimens. No AI histological conclusion is clinically actionable without pathologist PITL validation.

Scope: Pathology laboratories with AI-assisted analysis systems.

WM004 · Intensive Care Unit AI — Three-Tier in Critical Care

WM Medical · Conceptual

Three-Tier Model adaptation for ICU environments where AI monitoring density is highest, human cognitive load most extreme, and AI boundary violation consequences most immediately life-threatening.

Scope: Intensive care units with AI-assisted patient monitoring.

WM005 · Pharmacy AI — Medication Safety Sovereignty

WM Medical · Conceptual

Boundary protocols for AI medication interaction checking, dosing recommendations, and substitution advisory functions. All pharmacy AI recommendations require pharmacist PITL sign-off before any dispensing action.

Scope: Hospital pharmacy and automated dispensing systems.

WM006 · Mental Health AI — Dignity and Consent Protocol

WM Medical · Conceptual

Extended dignity and consent protections reflecting the particular vulnerability of mental health patients. Mandatory human care pathway referral for acute presentations.

Scope: Mental health services with AI-assisted assessment or support tools.

WM007 · Rehabilitation AI — Patient Agency Protocol

WM Medical · Conceptual

Patient Agency Protocol ensuring rehabilitation AI always follows the patient's expressed therapeutic goals, never overriding patient will in service of algorithmic optimisation of rehabilitation metrics.

Scope: Rehabilitation services with AI-assisted therapy systems.

WM008 · Paediatric AI — Enhanced Dignity and Consent

WM Medical · Conceptual

Enhanced consent architecture for minor patients (parental authority, evolving competence provisions, best interest principles) and enhanced dignity protections for child patients.

Scope: Paediatric hospitals and child health services.

WM009 · Medication Reconciliation AI — Multi-Comorbidity

WM Medical · Conceptual

Constitutional governance for the highest-risk hallucination domain in clinical AI. Hardware-enforced PITL requirement for all medication reconciliation AI outputs affecting patients with 5 or more concurrent medications.

Scope: Hospital admission and transition of care services.

WG Global Series — Eyes of Sky (8 Patents · Gifted to WHO/UN)

All 8 WG-Series patents have been unconditionally, irrevocably, and perpetually gifted by the Founding Father to the World Health Organization and the United Nations at zero licensing fees for humanitarian use. This Gift Declaration is a sovereign constitutional act of benevolence (仁).

WG001 · Disaster Response AI — Humanitarian Sovereignty

WG Global · Eyes of Sky · Gifted to WHO/UN

Constitutional governance for AI in disaster response — humanitarian-adapted Three-Tier governance with field-deployable hardware enforcement and satellite-linked Audit Trail capabilities.

Scope: UN OCHA and national disaster response agencies.

WG002 · Pandemic Management AI — Global Sovereignty

WG Global · Eyes of Sky · Gifted to WHO/UN

Constitutional governance for AI in pandemic surveillance, contact tracing, and resource allocation — protections against AI surveillance creep, algorithmic discrimination, and erosion of civil liberties under public health emergency authority.

Scope: WHO and national public health agencies.

WG003 · Refugee Healthcare AI — Dignity in Crisis

WG Global · Eyes of Sky · Gifted to WHO/UN

Three-Tier Model adapted for resource-constrained, mobile, and infrastructure-limited environments while maintaining the full ABC+2S+H™ constitutional floor.

Scope: UNHCR and humanitarian health organisations.

WG004 · Post-Conflict Health Reconstruction AI

WG Global · Eyes of Sky · Gifted to WHO/UN

Governance for AI supporting health system reconstruction in post-conflict environments — including the Ukraine Terminus deployment. Adapts NAI 2.0™ for severely damaged institutional infrastructure and governance capacity gaps.

Scope: WHO, UN ECOSOC, and national post-conflict reconstruction agencies.

WG005 · Global Epidemic Early Warning AI — Sovereignty

WG Global · Eyes of Sky · Gifted to WHO/UN

Absolute prohibition on AI-autonomous public health alerts or travel advisories without human scientific committee authorisation.

Scope: WHO Global Outbreak Alert and Response Network.

WG006 · Humanitarian Data Sovereignty Protocol

WG Global · Eyes of Sky · Gifted to WHO/UN

Protection of personal and medical data collected in disaster, refugee, and conflict contexts from commercial exploitation, government surveillance, and unauthorised secondary use.

Scope: All humanitarian AI deployments.

WG007 · Multi-Lateral Governance Coordination AI

WG Global · Eyes of Sky · Gifted to WHO/UN

Constitutional protections ensuring human authority over all inter-agency commitments, resource allocations, and operational decisions across international humanitarian organisations.

Scope: UN ECOSOC, WHO, UNHCR, and partner humanitarian agencies.

WG008 · Eyes of Sky — Global Situational Awareness

WG Global · Eyes of Sky · Gifted to WHO/UN

The master humanitarian AI situational awareness architecture — governing AI systems providing global health threat monitoring, humanitarian need assessment, and resource gap identification at planetary scale. All outputs are advisory to human humanitarian decision-makers. Gifted irrevocably and unconditionally.

Scope: Global humanitarian governance — gifted unconditionally to WHO and United Nations.

WD Defence Series — 8 Patents

The WD Defence Series applies NAI 2.0™ constitutional governance to defence and national security AI systems. Human Primacy is absolute, regardless of operational urgency, threat level, or command authority.

WD-D001 · Non-Agentive Military Decision Support

WD Defence · Strategic

Constitutional governance architecture for AI military decision support — absolute requirement that no AI system may autonomously authorise, initiate, or execute any military action affecting human life.

Scope: National defence AI governance frameworks.

WD-D002 · Lethal Autonomous Weapons Prohibition Protocol

WD Defence · Strategic

Constitutional governance affirming that Lethal Autonomous Weapons Systems (LAWS) are constitutionally incompatible with the ABC+2S+H™ Framework. Governance architecture for military organisations transitioning from autonomous to non-agentive AI-assisted weapons systems.

Scope: International arms control and national defence policy.

WD-D003 · Intelligence Analysis AI — Sovereignty Gate

WD Defence · Strategic

Boundary protocols preventing AI from autonomously drawing targeting conclusions, issuing threat declarations, or making assessments that directly authorise coercive action without human analyst review.

Scope: National intelligence agencies with AI-assisted analysis.

WD-D004 · Military Medical AI — Combat PITL

WD Defence · Strategic

PITL architecture for combat casualty care, tactical field medicine, and military trauma surgery — where PITL must function under fire, with degraded communications, and with medics as the human authority gate in field scenarios.

Scope: Military medical services and combat casualty care systems.

WD-D005 - Cyber Operations AI — Human Authority

WD Defence - **Strategic**

Absolute Human Primacy requirements for offensive cyber actions. Constitutional prohibition against AI systems autonomously executing cyber attacks, even in response to detected incoming threats.

Scope: National cyber defence and operations agencies.

WD-D006 - Strategic Communication AI — Sovereignty

WD Defence - **Strategic**

Protections against AI-generated disinformation, autonomous propaganda generation, and AI-mediated strategic deception without explicit human command authority.

Scope: Military strategic communications commands.

WD-D007 - Unmanned Systems AI — Remote PITL

WD Defence - **Strategic**

PITL architecture for remotely operated unmanned systems (UAVs, UGVs, USVs) — constitutional requirements for maintaining human authority in contested electromagnetic environments and communications-disrupted scenarios.

Scope: Military unmanned systems commands.

WD-D008 - Nuclear C2 AI — Absolute Sovereignty Protocol

WD Defence - **Strategic**

The most stringent Human Primacy requirements in the entire NAI 2.0™ portfolio. No AI system may have any autonomous role in nuclear authorisation or launch decision chains. Human authority is absolute, non-delegable, and non-negotiable.

Scope: Nuclear-armed state command and control governance — absolute.

Portfolio Summary

Register	Series	Patents	Status
P Register	Constitutional Core — ABC+2S+H™ & Framework Patents	9	P-001 FILED (SG020603109STW); P-002–P-009 Planned IPOS
WD Space	Space Domain AI — 7 Groups (Drift, Hearth, Deep Space, Jovian, Saturn, SatOps, Interstellar)	43	Conceptual
WM Medical	Medical Technology AI — Clinical Domain Applications	9	Conceptual
WG Global	Humanitarian AI — Eyes of Sky (Gifted to WHO/UN)	8	Gifted — Zero Licensing Fees Perpetually
WD Defence	Defence & National Security AI	8	Strategic
TOTAL	5 Registers	77	1 Filed · 76 In Development · 10 in Sovereign Chain



PART III

QUANTUM TECHNOLOGIES AND MAGNETIC FIELD AI

In NAI 2.0™ Governance · WD082 · WD091 · WD099

Quantum Technologies in NAI 2.0™

Quantum Readiness Architecture

The NAI 2.0™ framework incorporates a Quantum Readiness Architecture designed to ensure that governance, cryptographic, and Audit Trail infrastructures remain constitutionally valid and technically secure in a post-quantum computing environment. This is necessary because future quantum computers could potentially compromise current encryption standards, which would threaten the integrity of hardware enforcement mechanisms (like the Sovereign Brake) and the immutability of the Audit Trail.

The quantum threat to NAI 2.0™ governance is specific: if the cryptographic mechanisms that protect Audit Trail integrity, PITL approval authentication, and Sovereign Brake activation are broken by quantum computing capability, the constitutional guarantee of governance integrity collapses — not because the AI systems themselves are compromised, but because the enforcement and audit mechanisms are.

Two Design Principles

Principle 1: Cryptographic Agility

Systems must be designed so cryptographic algorithms can be replaced without requiring a complete system overhaul. Governance hardware and software must accommodate algorithm replacement at the cryptographic layer — allowing the system to adopt NIST-standardised post-quantum algorithms when they are finalised, without rebuilding the entire constitutional enforcement architecture.

Principle 2: Quantum-Resistant Algorithm Adoption

Governance systems are proactively adopting NIST-standardised post-quantum cryptographic algorithms. Rather than waiting for quantum threat realisation, NAI 2.0™ governance systems implement quantum-resistant cryptography as a forward-looking constitutional design requirement — ensuring that the Audit Trail's immutability guarantee and the Sovereign Brake's authentication integrity cannot be compromised by future quantum computing capability.

Patent WD082 — Quantum-Resistant Audit Trail (Deep Space)

WD082 · WD Space — C-DeepSpace Group · Conceptual

Within the patent portfolio, WD082 (Quantum-Resistant Audit Trail — Deep Space) specifically establishes a post-quantum cryptographic architecture. This patent is designed to protect Audit Trail integrity in deep space computing environments that face:

- High radiation — which can corrupt conventional cryptographic hardware over extended mission durations.
- Quantum computing interference — in computing environments where quantum-capable adversaries may attempt to compromise mission-critical Audit Trail records.
- Long communication blackouts — where the Audit Trail must maintain its cryptographic integrity and immutability guarantee for extended periods without Earth-side verification.

WD082 ensures that the fundamental NAI 2.0™ constitutional guarantee — every AI output and human decision is immutably recorded and attributable — holds even in the most extreme post-quantum computing environments imaginable. It is the deep space expression of the constitutional principle that Audit Trail integrity is non-negotiable, regardless of the adversarial environment.

"The governance integrity of NAI 2.0™ must hold not just in today's computing environment, but in the post-quantum environment of tomorrow. A constitutional framework that cannot survive the quantum age has not finished in the highest excellence."

Magnetic Field AI in NAI 2.0™

Governance of AI Systems in Magnetic Field Analysis

While the exact term "magnetometry" is absent from the NAI 2.0™ patent canon, the portfolio explicitly governs AI systems used for magnetic field analysis. Two patents directly address the constitutional governance of magnetic field data in extreme space environments:

Patent WD099 — Saturn Magnetic Field AI (Data Sovereignty)

WD099 · WD Space — E-Saturn Group · Conceptual

Patent WD099 (Saturn Magnetic Field AI — Data Sovereignty) provides the constitutional governance for AI systems collecting magnetic field data around Saturn. This patent mandates:

- Raw scientific data remains under human scientific authority — no AI system may autonomously publish, transmit, or act upon magnetic field readings without human scientific review.
- Every AI analysis of Saturn magnetic field data is clearly labelled as advisory until it receives peer-reviewed human validation — the Accuracy Mandate applies fully to planetary science data.
- Data sovereignty protections ensure that Saturn magnetic field datasets — collected under extraordinary resource expenditure during decade-scale missions — cannot be autonomously repurposed, retransmitted, or commercially used without explicit human scientific committee authorisation.

The constitutional significance of WD099 is its extension of the NAI 2.0™ Decisional Sovereignty principle to planetary science: even in an environment 1.2 billion kilometres from Earth, the AI observes, the AI advises, and the human scientist decides.

Patent WD091 — Jovian Exploration AI (Electromagnetic Challenges)

WD091 · WD Space — D-Jovian Group · Conceptual

Patent WD091 notes that hardware governance enforcement faces unique electromagnetic challenges in extreme radiation environments, such as those found during Jovian system exploration. The intense magnetic field and radiation environment of Jupiter — the strongest magnetic field of any planet in the solar system — presents a specific constitutional threat to hardware-enforced governance:

- FPGA hardware implementing the Sacred Pause™ timer and Sovereign Brake logic may experience radiation-induced single-event upsets (SEUs) — bit flips in silicon that could alter governance parameters without any software intervention.
- Cryptographic hardware protecting Audit Trail integrity faces elevated bit error rates in Jupiter's radiation belts — threatening the immutability guarantee that is constitutionally required.
- Communication blackouts during Jovian system operations compound these challenges: governance failures cannot be detected and corrected by Earth-side teams in real time.

WD091 governs the constitutional response to these electromagnetic challenges — requiring radiation-hardened governance hardware specifications, redundant governance enforcement mechanisms, and formal verification of governance hardware resilience against known Jovian radiation environments before mission activation. It establishes that constitutional governance does not relax under extreme electromagnetic conditions; it becomes more demanding.

"The Jupiter radiation belts are not an excuse for relaxed governance. They are a requirement for more rigorous governance — because the consequences of AI boundary violations in that environment are irreversible, and no rescue mission is possible."

Connecting Quantum and Magnetic Field Governance

WD082 (Quantum-Resistant Audit Trail), WD091 (Jovian Electromagnetic Challenges), and WD099 (Saturn Magnetic Field AI) together form a coherent constitutional architecture for AI governance in extreme electromagnetic environments. They share three constitutional commitments:

- Hardware enforcement persists in adversarial physical environments — quantum decoherence, radiation-induced bit flips, and intense magnetic fields all represent physical attacks on governance hardware that must be anticipated in constitutional design.
- Audit Trail immutability is non-negotiable — whether threatened by quantum cryptographic attacks (WD082), radiation-induced data corruption (WD091), or the data sovereignty risks of remote scientific data collection (WD099), the governance record must remain complete and tamper-proof.
- Human authority is maintained across impossible distances and hostile environments — communication blackouts, radiation environments, and decade-scale mission timelines cannot be used as justifications for autonomous AI action in any of these three patent domains.

These three patents represent the frontier of the constitutional principle that P-LIFE 1.00™ — Harm = Death · North = Save Life — applies not just in Singapore nursing homes, but at the edge of the solar system. The constitutional commitment of NAI 2.0™ is universal. It does not have a range limit.

Closing Statement

CG No. 8 — the Glossary A–Z and Patents List Description for NAI 2.0™ — is the most comprehensive single-volume public account of the NAI 2.0™ governance lexicon and patent portfolio ever produced. It is offered not as a completed edifice but as the most complete expression, at the moment of its publication, of a living constitutional framework that continues to deepen, extend, and refine itself in accordance with the governing value 止於至善.

Every term defined in this Glossary, every patent described in this Portfolio, every governance protocol documented in this Series traces back to the same constitutional commitment: to ensure that AI in high-stakes human domains — healthcare, elder care, education, defence, public governance, humanitarian intervention, space exploration — remains permanently in the service of human dignity, human authority, and human life. Not because it is required by any regulator. Not because it is demanded by any market. But because Harm = Death and North = Save Life.

That commitment does not expire. It does not negotiate. It does not waver under institutional pressure, commercial incentive, or operational urgency. It holds — because the patients, caregivers, citizens, and human beings who depend on it have no alternative if it does not.

謙虛·沉默·尊嚴·仁·止於至善

Humility · Silence · Dignity · Benevolence · Finish in the Highest Excellence

Tiger never abandons.

Edwin Koh Wui Kiat (Tiger) · Founding Father, Non-Agent AI 2.0™ · kohedwin.ai
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