THE NAIO PULSE

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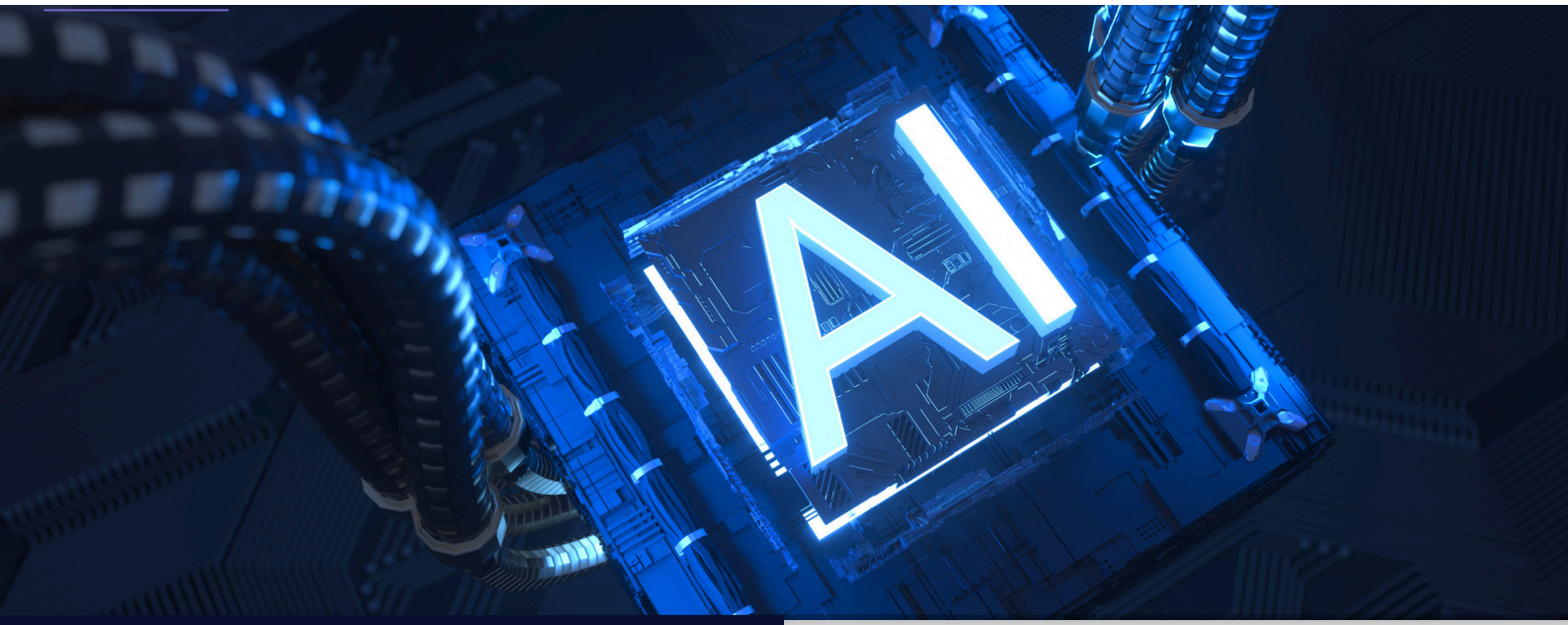

Introducing the NAIO Pulse

Welcome to The NAIO Pulse, a living stream of insights from Malaysia's National AI Office (NAIO). Each release captures the heartbeat of artificial-intelligence policy and innovation Whether you're a policymaker, industry leader, researcher, or simply curious, The NAIO Pulse is your adaptable guide to navigating—and shaping—the next frontier of trustworthy, transformative AI.

INSIGHTS

AI STANDARDS

AI standards are emerging as a critical and core component of AI governance worldwide. But what exactly are standards? In this issue of the NAIO Pulse we will explore the types of standards emerging and how Malaysia, through NAIO is approaching them to build a more robust and future-ready AI governance ecosystem.

- International Norms and Local Adoption
- Standards in the AI Governance Framework
- NAIO initiatives in AI Standards

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NAIO Working Groups Submit Final Reports

The NAIO Working Groups have completed their 3 month tenure putting forward key recommendations and strategies. What is next for this collaborative policy making initiative?

See inside page 5 >

Developing the next AI Roadmap

NAIO together with the MOSTI-led National Blockchain and AI Committee held a workshop on 21-23 May 2025. This is one of the critical steps as NAIO develops the National AI Action Plan and Roadmap 2.0.

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Understanding Standards

What are standards?

Standards have underpinned civilisation for millennia—the alphabet can be considered a standard, enabling every generation to decipher the same symbols into shared meaning—yet their purpose remains constant: to define clear, consensus-based rules so we can work together safely and efficiently.

As society industrialised, we began crafting ever more specialised technical standards—from the railway gauge that keeps trains on track to the USB plug that fits every laptop—whenever repeatability, cross-border trade, or public safety demanded it. The focus of this issue is on technical standards developed by international standarsation organisations.

In Malaysia standards are recognised by law and are defined under the Standards Act 1996.

The Emergence of AI Standards

As AI technologies rapidly advance, there is a growing effort to develop AI-specific standards to guide their responsible development and use. Just as electrical appliances or communication networks have standards, AI systems are beginning to be governed by technical and ethical benchmarks set by international standards bodies.

AI standards cover a wide range of issues – from basic terminology and reference architectures to complex matters like trustworthiness, bias mitigation, and safety. The goal is to create a common framework that ensures AI systems are safe, fair, and interoperable across different applications and regions.

The emergence of AI standards reflects a recognition that consistent benchmarks are needed to support trustworthy AI, much as standards have underpinned quality and safety in other fields.

International Standards Organisations in AI

ISO/IEC Joint Technical Committee 1, Sub-Committee 42

ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) are two separate but often collaborating organizations that develop and publish international standards.

Such a collaboration is seen in ISO/IEC JTC 1/SC 42 on AI. This committee operates under the ISO and IEC using a "one country, one vote" system. Malaysia is part of this sub-committee.

Because ISO/IEC standards are developed by consensus and are voluntary, this process brings together diverse stakeholders worldwide and fosters cooperation. The result has been a suite of international AI standards on topics like terminology, governance, transparency, bias, risk management, and data quality.

Notably, ISO and IEC jointly published ISO/IEC 42001:2023, the world's first AI Management System Standard, through SC 42

IEEE (Institute of Electrical and Electronics Engineers)

IEEE, through its Standards Association (IEEE SA), has spearheaded a series of standards for Autonomous and Intelligent Systems (AIS). The IEEE focuses strongly on ethical design principles and technical best practices for AI. Its IEEE 7000 series of standards addresses specific ethical issues: for example, IEEE 7000-2021 provides a model process for integrating ethical value considerations into system design; IEEE 7001-2021 sets measurable levels of transparency for autonomous systems.

ITU (International Telecommunication Union)

The ITU, a United Nations specialised agency, also contributes to AI standardisation, especially where AI intersects with telecommunications and infrastructure. through recommendations (a type of standard) on technologies, including AI in telecom networks. While ITU's focus is narrower, it works alongside ISO/IEC and IEEE to ensure technical compatibility and address emerging issues in global telecom/ICT contexts.

Collaboration between Organisations

International standardisation organisations strive to avoid duplicating work and to harmonise standards. ISO/IEC's SC 42 has built an extensive network of partnerships with bodies like the OECD, UNESCO and WTO to align standards with international ethical principles and trade considerations. The collaboration among standards organisations means that they are collectively building a coherent framework of AI standards. This cooperative ethos is crucial given AI's borderless nature: it helps create interoperable standards so that, for instance, AI systems built to ISO/IEC requirements can align with IEEE ethical guidelines, and vice versa, without conflict.

Standards in the AI Governance Framework

In the broader context of AI governance, we can imagine multiple layers: ethical principles (e.g. “AI should be fair, transparent, accountable”), technical standards and best practices (detailing how to achieve fairness, transparency, etc.), and laws or regulations that enforce certain practices.

Standards serve as a critical middle layer – often described as a form of “soft regulation” – translating abstract principles into concrete, implementable criteria. For example, an ethical principle like “ensure AI is explainable” can be supported by a technical standard on transparency that defines how to measure and communicate AI decision logic. In this way, standards act as bridge documents, connecting policy goals with implementable practices.

National Adoption and Adaptation

Once an international standard is published, it doesn’t automatically become enforceable in any country – it’s a resource. Here, national standards bodies (NSBs) come in. In Malaysia, the Department of Standards Malaysia (DSM), under the Ministry of Investment, Trade and Industry (MITI), oversees national standardisation efforts. Through the NSB, a country may adopt an international standard as-is, adapt a standard according to its own local needs or develop its own unique standard.

FAQ’s

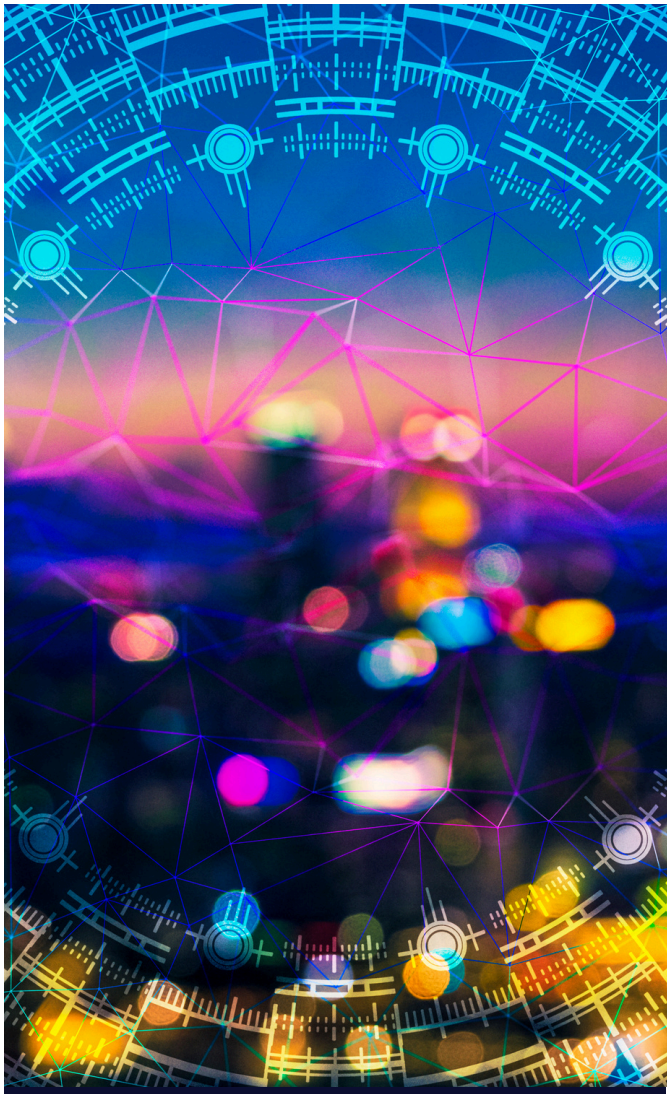
Q: Do I need to wait for Malaysia to formally adopt an AI standard before I use it?
No. International AI standards are immediately usable as voluntary best-practice references. Early adoption positions your organisation ahead of any future local mandates.

Q: What are the benefits of using AI standards if they are just voluntary?
They give you a proven framework for risk management, interoperability and audit readiness, boost customer and regulator trust. Being ahead means you shorten the compliance curve if the standards later become mandatory.

Q: Where can I access these AI standards?
Purchase or download them from the respective organisation portals or via a Malaysian authorised distributor.

Q: Is there guidance on how to properly implement these AI standards?
Yes. Many standards have built-in implementation annexes which include detailed clauses and explanatory notes. Supplementary training and certification courses are available from accredited bodies in Malaysia and internationally.

NAIO and AI Standards



TECHNICAL COMMITTEE-17, DSM

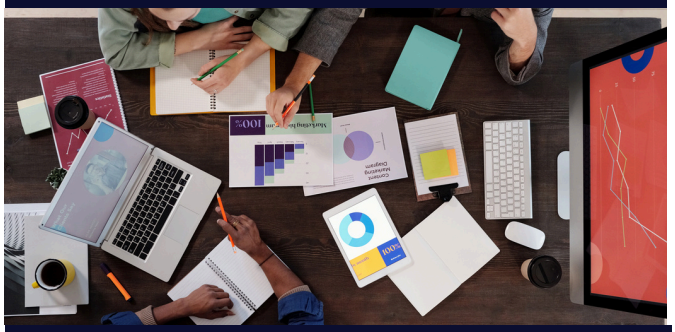
NAIO was approved as a member of Technical Committee-17 (Artificial Intelligence) under the Department of Standards in March 2025. As part of this role, NAIO is actively assessing suitable standards for potential adoption as Malaysian national standards.

In May 2025, NAIO formed an ad-hoc taskforce of experts that are assisting NAIO in assessing 10 leading AI-specific standards, including ISO/IEC 42001.

ISO AI POLICY AND STANDARDS CAPACITY BUILDING JOURNEY

NAIO together with DSM will represent Malaysia as one of 16 countries selected by ISO to participate in an AI Policy Capacity Building Journey in July 2025.

Alongside both developed and developing countries, Malaysia will have the opportunity to contribute to the global discourse as well as learn from ongoing initiatives in AI standards around the world.



MTFSB FORMATION OF AI STANDARDS TASKFORCE

NAIO is supporting MTFSB in developing the AITF, which will be established to develop Technical Codes and related documents that support the safe and effective deployment of AI within the telecommunications and multimedia sectors in line with the Strategic Communications and Multimedia Technology Roadmap 2025–2030. The AITF's first briefing was held on 5 June.

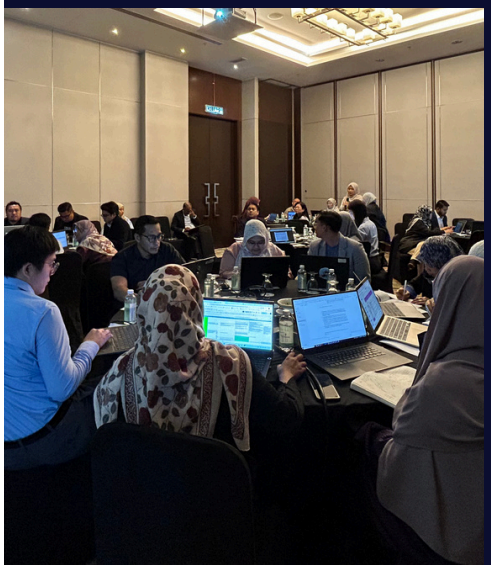
NAIO Updates

KUDOS TO THE NAIO WORKING GROUPS

We would like to extend our deepest appreciation to the seven NAIO Working Groups — AI Sovereignty, AI Regulation & Policy, AI Security, AI Governance & Ethics, AI Safety, AI Talent, and AI Advisory — for successfully completing their three-month tenure ending 30 May 2025.

Formed in February 2025, these groups brought together 207 voluntary experts from local and international organisations across government, academia, industry, and civil society.

The final output from the WGs' and sectoral teams have resulted in a host of recommendations for consideration in national policy development, where AI strategies will be translated into real-world applications that will drive the nation's economic growth and social well-being.



EVALUATING THE NATIONAL AI ROADMAP 2021–2025

NAIO together with the MOSTI-led NBAIC held a workshop on 21-23 May 2025 to conduct a thorough review and impact assessment of the Malaysia Artificial Intelligence Roadmap 2021- 2025. This high-level engagement session brought together about 45 key representatives from government agencies, NGOs and industry.

Call for contributors

NAIO is looking for writers to contribute to the conversation on AI through this publication.

Authors who are interested in submitting an article for the NAIO Pulse should send a title and short summary to the "Editorial Office" (contact us@ai.gov.my) outlining the scope of their proposed article and accompanied by a short profile of the writer.

Accepted proposals will be notified *via* email with submission guidelines attached. Topics should be within the scope of the NAIO Pulse's coverage and address current issues.

Thank you for being a valued part of the NAIO Community. If you have any question or feedback, please do not hesitate to reach out to (contactus@ai.gov.my)

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