UMS
THE AI BRAIN OF
BORNEO

## MYMOHES RANKING 2025

UMS received ★★★★⯪ MyMOHES rating reflecting UMS's continued strength and consistency across data quality performance among public universities. As of the June 2025 cut-off, UMS recorded an overall score of 97.0180%

See more >>





## UMS AI POLICY V1

The UMS Artificial Intelligence (AI) policy establishes an institutional policy that applies to all UMS staff and students. Grounded in seven core principles: fairness, safety and privacy, reliability and control, inclusivity, transparency, accountability and continuous improvement. These principles drive the use of AI ethically and responsibly.

See more >>

## DATA ARCHITECTURE 2.0

The latest UMS Data Architecture has been approved at the Data Management and AI Committee (JDA) on 19 December 2025

See more >>

# DARTIC 2025 IN A NUTSHELL



2025 has been a landmark year for DARTIC, marked by strategic milestones and recognition. The institutional UMS Artificial Intelligence Policy was formally approved and Data Architecture Version 2.0 was successfully established, strengthening the university's data foundation. DARTIC also earned top accolades, including a 5-star Organisational Management Award, a 5-star Accountability Audit score and a 4.5-star MyMOHES rating at both mid-year and year-end. On the innovation front, DARTIC



UMS AI POLICY

developed a Real-time Event Analytics Dashboard for registration, maintained seven dashboards and analytics platforms and new infographics for the UMS Open Data Portal https://data.ums.edu.my. DARTIC extended its international engagement with visits to AI Institute, Seoul National University, the SEMICON Southeast Asia Conference in South Korea and the World AI Technology Expo in Dubai, United Arab Emirates. Finally, DARTIC advanced the capabilities in data integration with the development of an API for real-time student data submission to the Ministry of Higher Education. Together, these achievements highlight DARTIC's commitment to data-driven decision-making, AI readiness and digital innovation.
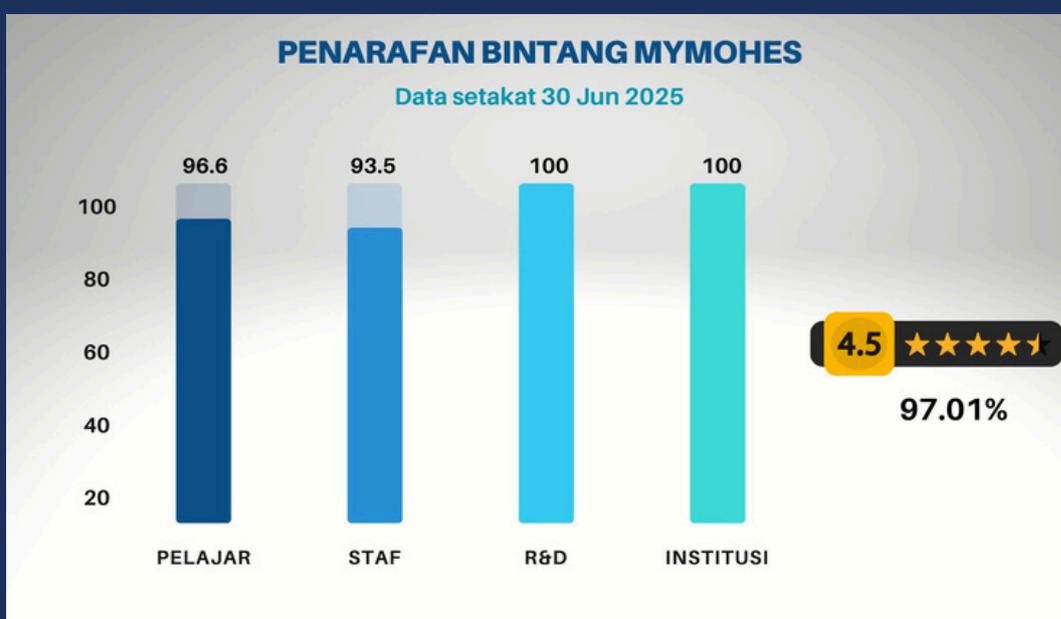
# DATA MANAGEMENT & GOVERNANCE
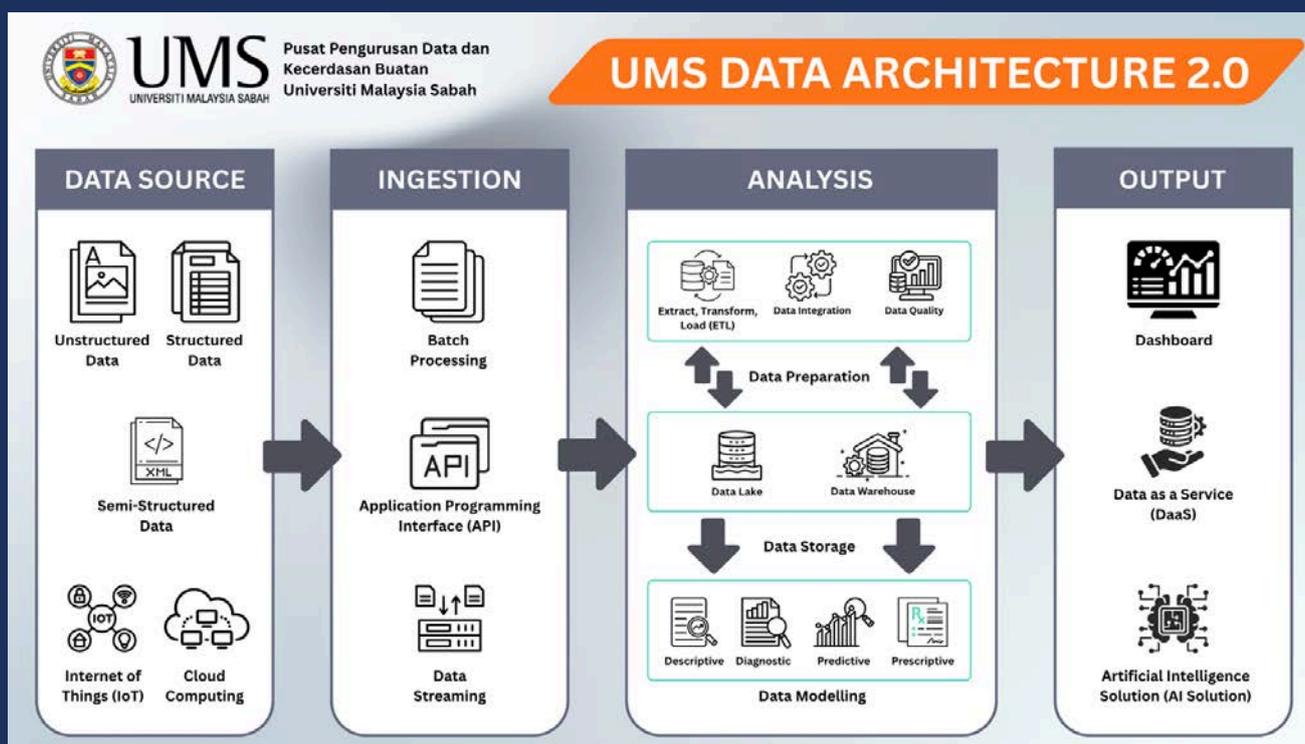


UMS Data Architecture 2.0

Effective data management and governance are the backbone of any successful digital and AI initiative. At the core of this foundation lies a well-defined data architecture that serves as a shared blueprint for how data is captured, connected, protected and used across the organisation. When data architecture and governance work hand in hand, data becomes consistent, trustworthy and ready for analytics and AI. The result is fewer silos, lower risk and greater confidence in using data to drive smarter decisions and long-term digital impact.

As a result of a well-structured data management and governance framework, UMS has achieved an excellent result for MyMoHES rating. A collective effort shown by the data owners, data stewards and data custodians.

# DATA ANALYTICS & DECISION INTELLIGENCE

UMS dashboard visualizations and data analytics has been integrated with AI insights and Q&A features to create an impactful and strategic dashboards supporting decision intelligence in UMS.



## UMS STUDENT AND ALUMNI MAIN DASHBOARD



This dashboard displays data on UMS students and alumni. The student data presented includes admission statistics, enrollment statistics, and current active student statistics. For alumni data, the dashboard presents graduate statistics and graduate employability (GE) rate statistics by year.

dartic.ums.edu.my

# ARTIFICIAL INTELLIGENCE IN PRACTICE

The UMS AI Policy Version 1.0 is designed to provide institutional AI foundation for the ethical, responsible and effective use of AI technologies within the institution. It aims to enhance teaching, learning, research, innovation and administration while maintaining the highest standards of academic integrity. The policy has been approved by the University Management Committee (JPU) on the 19 August 2025 and the University Board of Directors (LPU) on the 27 October 2025.



**UMS AI Policy at a Glance**
Guiding principles and shared responsibilities for ethical and effective AI use at Universiti Malaysia Sabah.

**OUR 7 CORE PRINCIPLES**

**FAIRNESS**
AI systems must be designed to avoid bias and discrimination.

**SECURITY & PRIVACY**
User data must be protected and individual privacy respected.

**RELIABILITY & CONTROL**
AI systems must function securely and as intended.

**INCLUSIVITY**
AI access should be equitable, ensuring no one is marginalized.

**TRANSPARENCY**
The purpose and methods of AI use must be clear to all users.

**ACCOUNTABILITY**
All users are responsible for the ethical impact of their AI use.

**CONTINUOUS DEVELOPMENT**
We are committed to updating AI technology for educational needs.

**SHARED RESPONSIBILITIES**

**THE UNIVERSITY PROVIDES**
Clear policies, support facilities, and a culture of ethical AI use.

**ACADEMIC STAFF MUST**
Use AI ethically, train students, and verify AI-generated accuracy.

**STUDENTS MUST**
Use AI to support learning, not replace effort, and verify information.

**COMPLIANCE & INTEGRITY**

**UPHOLDING INTEGRITY IS MANDATORY**
Failure to comply with AI ethics can lead to disciplinary action.

The policy's key components include:

1. Foundational Alignment: The policy is aligned with several national and international frameworks, such as the National AI Roadmap 2021-2025 (MOSTI), the National Guidelines on AI Governance and Ethics (AIGE), the Guidelines for the Adoption of Artificial Intelligence (AI) in the Public Sector, MQA Advisory Notes, UNESCO's guidance on AI in education etc. It also adheres to Malaysian laws, including the Official Secrets Act 1972 and the Personal Data Protection Act 2010.

2. Seven Core Principles: (i) Fairness (ii) Security and Privacy (iii) Reliability and Control (iv) Inclusivity (v) Transparency (vi) Accountability (viii) Continuous Development

# ARTIFICIAL INTELLIGENCE IN PRACTICE

Artificial intelligence at Universiti Malaysia Sabah continues to move beyond experimentation into meaningful practice through strong collaboration with federal and state government, national stakeholders, including the National Artificial Intelligence Office (NAIO). UMS's inclusion by the Konsortium AI Negara (KAIN) as one of the universities within Malaysia's AI ecosystem underscores the university's growing role in advancing AI capabilities at the national level. These efforts position UMS and DARTIC as active contributors to Malaysia's AI agenda, supporting policy alignment, capacity building and impactful AI deployment.



UMS listed as one of the universities in Malaysia AI Ecosystem
(source: https://konsortiumainegara.org/ accessed 31 December 2025)

# RESEARCH, INNOVATION & COLLABORATION



## SCANALYTICS: REAL-TIME EVENT REGISTRATION ANALYTICS DASHBOARD

In conjunction with the UMS2025 Digital Month and Kinabalu International Book Fair (PBAKK), DARTIC has been appointed as the secretariat of the Registration Committee. In line with this, one (1) digitalization innovation in managing attendance and automatic check-in of visitors/participants has been developed. This innovation includes: (i) Unique QR code entry pass feature to protect visitors/participants' personal data (ii) The entry pass will be used to verify and track attendance at a program/event/workshop/meeting at UMS or outside UMS (iii) Real-time recording and visual analytics feature of visitor trends integrated to the dashboard.
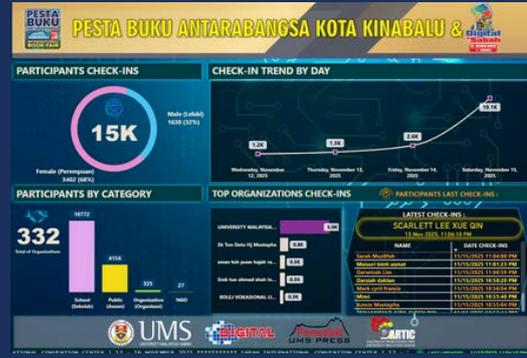






## INNOVATION IN SOCIOECONOMIC DASHBOARDS: AN EXAMPLE FOR GOVERNEMENT DECISION-MAKING AND PUBLIC INSIGHT

Government agencies manage large volumes of economic and social data. Without effective visualisation, these data remain underutilised. An innovative socioeconomic dashboard enables: (i) Faster policy interpretation (ii) Evidence-based decision-making (iii) Public transparency and trust.

# RESEARCH, INNOVATION & COLLABORATION

## REPORTING DASHBOARD DEVELOPMENT FOR JOHOR STATE GOVERNMENT

BUSINESS REQUIREMENTS SPECIFICATION (BRS) WORKSHOP FOR THE DEVELOPMENT OF THE JOHOR STATE DISASTER STATUS REPORTING DASHBOARD THROUGH ICT@JOHOR IN COLLABORATION WITH NATIONAL DIGITAL DEPARTMENT (JDN), JUNE - AUGUST 2025.



IN-PERSON GROUP COACHING AND TRAININGS FOR REPORTING DASHBOARD DEVELOPMENT, AUGUST 2025

# RESEARCH, INNOVATION & COLLABORATION

## AI INSTITUTE, SEOUL NATIONAL UNIVERSITY, SOUTH KOREA

On 24 February 2025, DARTIC delegation had the opportunity to visit the AIIS for AI Technology Transition and benchmarking.

Some insightful discussion covers on AI policy and governance at the university level, best practices in Data Intelligence, an AI-based data analytics and embedded technology systems.

AIIS also shared information about the collaboration between AIIS and external agencies where they hold outreach programs such as the AI CEO Program to promote networking with the industry.

We also had the opportunity to visit the Embedded AI lab at AIIS where students and researchers train AI robot models in object recognition to help humans perform daily tasks.

# RESEARCH, INNOVATION & COLLABORATION



## WORLD AI TECHNOLOGY EXPO, DUBAI

On 14 May 2025, the DARTIC delegation participated in the World AI Technology Expo held at the Mövenpick Grand Al Bustan Hotel, Al Garhoud, Dubai.

Recognised as one of the world's largest AI exhibitions and conferences, the World AI Technology Expo serves as a global platform for innovation and collaboration among start-ups, industry leaders, and government agencies, bringing together over 3,000 AI leaders from more than 30 countries, with renowned speakers representing global organisations such as Microsoft, IBM, Cisco, AWS, PayPal, and others.

Throughout the expo, the delegation gained valuable insights and exposure through strategic networking with international AI experts, Fortune 500 executives, technology investors, and innovators from diverse industries. Knowledge exchange was further enhanced through panel discussions, workshops, and live demonstrations showcasing the latest advancements in artificial intelligence.

The expo enhanced brand visibility and opened opportunities for strategic collaboration with key stakeholders, while providing early exposure to emerging AI trends such as generative AI, enterprise AI, cybersecurity, and sector-specific solutions, in support of Universiti Malaysia Sabah's strategic direction in digital transformation and innovation.

# NATIONAL AND INTERNATIONAL HIGHLIGHTS



Good data vital for AI role in Blue Economy

KOTA KINABALU: Keeping data well-organised and using Artificial Intelligence (AI) the right way is important for building a sustainable blue economy, said Universiti Malaysia Sabah (UMS) Data Management and Artificial Intelligence Centre Director Dr Farashazillah Yahya.

"AI will only be as good as the data you feed. Without clean, governed data, you are fuelling AI initiatives with noise and wasting money," she said in her talk titled, "From Bytes to Blue: Strengthening Data Governance and AI for Sustainable Blue Economy".

Farashazillah who was among invited speakers at the 3rd Asean Blue Economy Forum 2025 held at the Sabah International Convention Centre, here, Wednesday, pointed out how rapidly global data is growing, with volumes expected to reach 200 zettabytes by year's end, that is roughly 200 billion high-definition movies worth of data.

"Between 30 to 50 per cent of collected data is raw, meaning it is rubbish, redundant or obsolete," she said, adding that even routine activities like forwarding WhatsApp images contribute to unnecessary data accumulation that consumes energy at data centres.

**PLENARY SPEAKER FOR 3RD ASEAN BLUE ECONOMY FORUM 2025, 30TH SEPTEMBER 2025, SABAH INTERNATIONAL CONVENTION CENTRE**
FROM BYTES TO BLUE: STRENGTHENING DATA GOVERNANCE AND AI FOR SUSTAINABLE BLUE ECONOMY
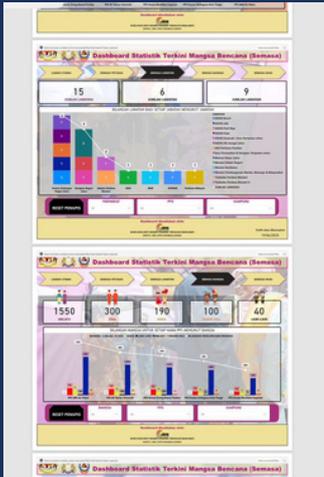BY TS. DR. FARASHAZILLAH YAHYA



https://www.dailyexpress.com.my/news/268042/good-data-vital-for-ai-role-in-blue-economy/

**INVITED SPEAKER FOR EDU AI DAY 2025, 9TH DECEMBER 2025, LE MERIDIEN PUTRAJAYA**
VOICE OF THE CUSTOMER: FIRESIDE CHAT FEATURING UMS'S EXPERIENCE WITH MICROSOFT FABRIC BY DR. SURAYA ALIAS

# CAPACITY BUILDING & OUTREACH



**DISASTER STATUS REPORTING DASHBORD DEVELOPMENT ONLINE TRAININGS FOR JOHOR STATE GOVERNMENT, AUGUST 2025**



**AI TRAINING, LATIHAN DALAM PERKHIDMATAN (LDP) FOR IBU PEJABAT POLIS KONTINJEN SABAH, 3 - 4 SEPTEMBER 2025**



**AI FOR MSME SMART TOOLS AND STRATEGIES TO DIGITIZE AND GROW YOUR BUSINESS - 24 NOV 2025 COLLABORATION WITH MINISTRY OF DIGITAL & NAIO**

# CAPACITY BUILDING & OUTREACH

## DATA WAREHOUSE SYSTEM (DWH) FACELIFT DESIGN WORKSHOP, 06 MAY 2025



Workshop Objectives:
- Enhancement of the user menu module
- Enhancement of the user access module
- Strengthening the navigation process for dashboard and analytics access in the DWH



## DATA VISUALIZATION BASIC TO INTERMEDIATE COURSE, 04 - 07 AUG 2025



## AI TALENT WORKSHOP PHASE 2, 02 SEPT 2025
## AI-DRIVEN TEXT ANALYTICS WITH PUBLICATION INSIGHT BY DR. SURAYA ALIAS



Workshop Objectives:
- Understand AI-driven text analytics concepts and methodologies
- Apply text analytics techniques for gaining insights from publication
- Leverage AI tools to support research evaluation and strategic planning

# DARTIC PERFORMANCE 2024-2025



**DARTIC Performance Report: 2024-2025 Highlights**

Summarizing key accomplishments from 2024-2025, highlighting excellence in administration, data management, analytics, and new strategic role in AI.

**FOUNDATIONAL EXCELLENCE**

**5-Star** Consistent Ratings
Financial Management | Financial Audit | Accountability Index
✓ Achieved across audits in 2024.

**25% Increase in Staff Happiness**
Happiness Index soared
2024: 70.42%
2025: 96.33%

**~RM300k Gross Income Reaches**
Demonstrating sustained financial growth and improved revenue generation since 2021.

**ADVANCED DATA & ANALYTICS IMPACT**

**830 Data Applications Processed**
Fulfilled with a 100% on-time record for the 2024-2025 period.

**National Data Rating Exceeds 95%**
Achieved top MyMohes data ratings
99.50% | 97.02%
2024 | 2025

**Strategic Dashboards Deployed**
Report Cards for Deans
AI-embedded insights for key university functions.

**PIONEERING THE AI FUTURE**

**New Mandate to Lead Institutional AI**
Appointed as the main coordination function for AI initiatives in May 2024.

**UMS AI Policy Developed & Approved**
A dedicated task force established the policy, which was approved by August 2025.

**AI Talent Development Program Launched**
Successful "AI Talent Workshops" were conducted in both 2024 and 2025.

Between 2024 and 2025, DARTIC demonstrated exceptional growth, transitioning from a focus on administrative and data management excellence to becoming the institutional lead for Artificial Intelligence.
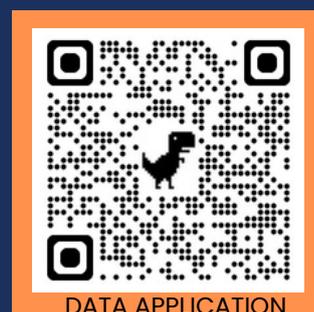
## ADMINISTRATIVE AND OPERATIONAL SUCCESS

The department achieved 5-star ratings across multiple evaluations, including the Financial Management Inspection (98.03%), the Financial Audit 2024, and the Accountability Index Audit. Financially, DARTIC has seen continuous growth since 2021, reaching a total gross income of approximately RM300,000 and becoming a top-five finalist for the JAFPIB Best Financial Award in 2024. This operational success was mirrored in staff wellbeing, where the DARTIC Happiness Index rose by 25%, reaching 96.33% in 2025.
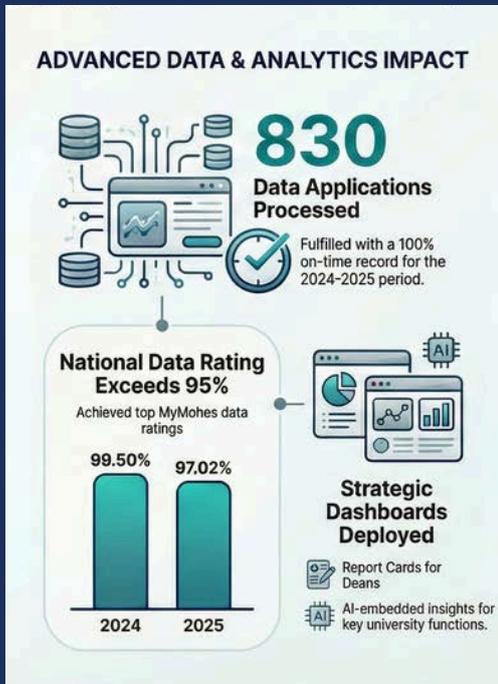
## DATA MANAGEMENT AND ANALYTICS

DARTIC maintained high standards in data processing and transparency:

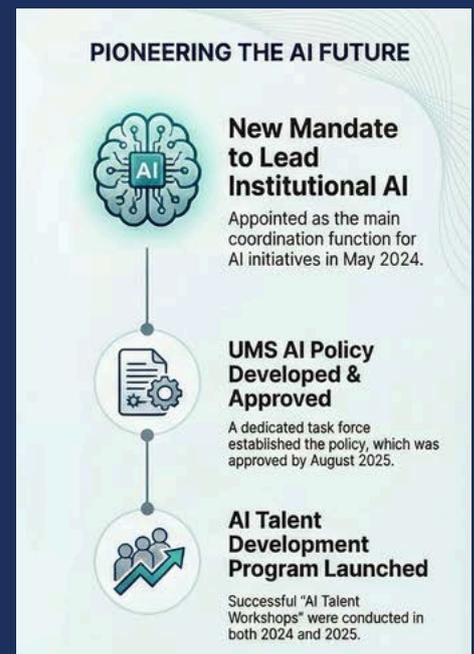- Efficiency: Processed 830 data applications with zero "out-of-time" cases.

DATA APPLICATION

# DARTIC PERFORMANCE 2024-2025



ADVANCED DATA & ANALYTICS IMPACT

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Achieved top MyMohes data ratings

99.50% (2024)   97.02% (2025)

Strategic Dashboards Deployed

Report Cards for Deans

AI-embedded insights for key university functions.

## DATA MANAGEMENT AND ANALYTICS

- Policy & Access: Established the UMS Open Data Policy and a public web platform https://data.ums.edu.my.
- National Compliance: Consistently exceeded MyMohes Data Ratings targets with scores above 95%, fulfilling UMS KRA 7 requirements.
- Strategic Insights: Supported the UMS Digital Strategic Plan by developing dashboards for higher leadership (Deans, Directors, and the University Board) and monitoring MyRA research contributions
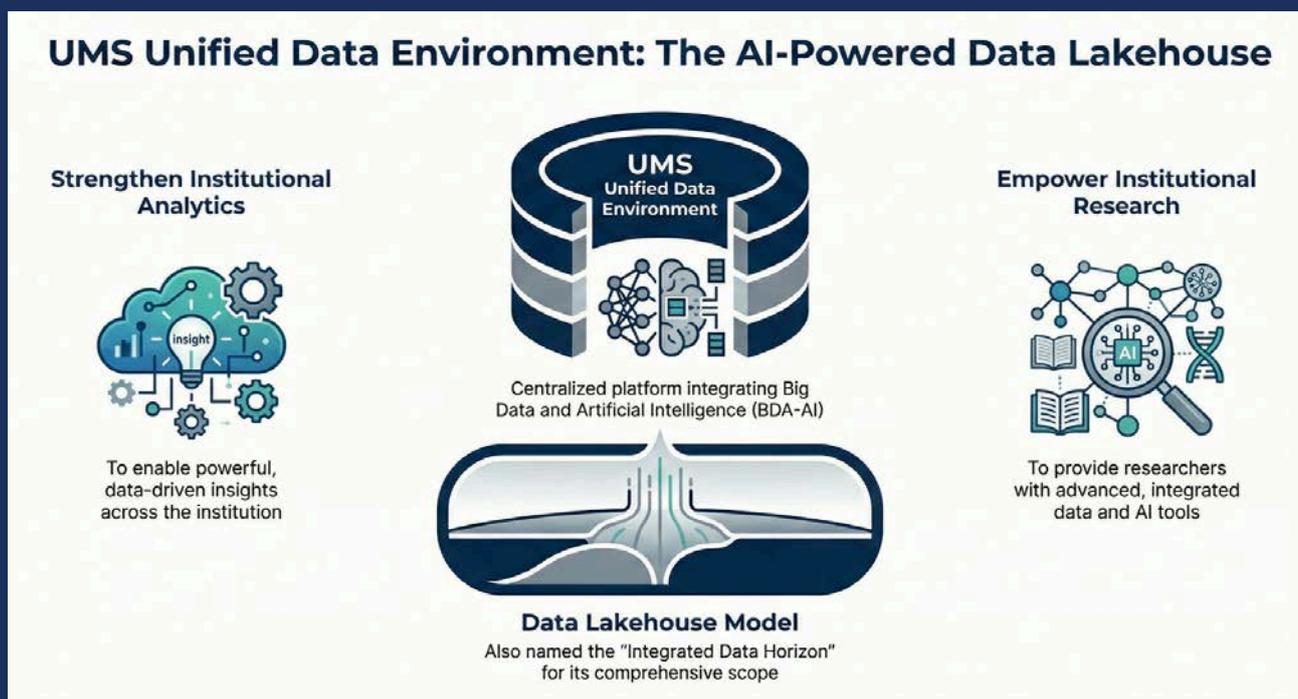
## AI INTEGRATION AND NATIONAL ALIGNMENT

In May 2024, DARTIC received a new mandate to coordinate institutional AI initiatives. Key milestones include:

- The development and JPU approval of the UMS AI Policy in August 2025.
- The implementation of AI Talent Workshops (1.0 and 2.0) to build internal capacity.
- The embedding of AI Insights into strategic decision-making dashboards for finance, publications and student accommodation.
- Alignment with the national AI framework and the recommendations of the Prime Minister's Office (PMX) through the National AI Office.



PIONEERING THE AI FUTURE

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# WHAT'S NEXT?



UMS Unified Data Environment

Moving forward, our focus will be on strengthening data quality as the foundation for meaningful analytics and trustworthy insights. This includes improving data standards, integration and stewardship to ensure that information used across the organisation is accurate, timely and fit for purpose.

The UMS Unified Data Environment aims to consolidate data from various departments such as the financial, publication, student data etc. to empower institutional research and decision-making. Data Lakehouse combines the flexible storage of a "data lake" with the structured management of a "data warehouse," providing the "Horizon" or vision needed to support the UMS Digital Strategic Plan.

# WHAT'S NEXT?
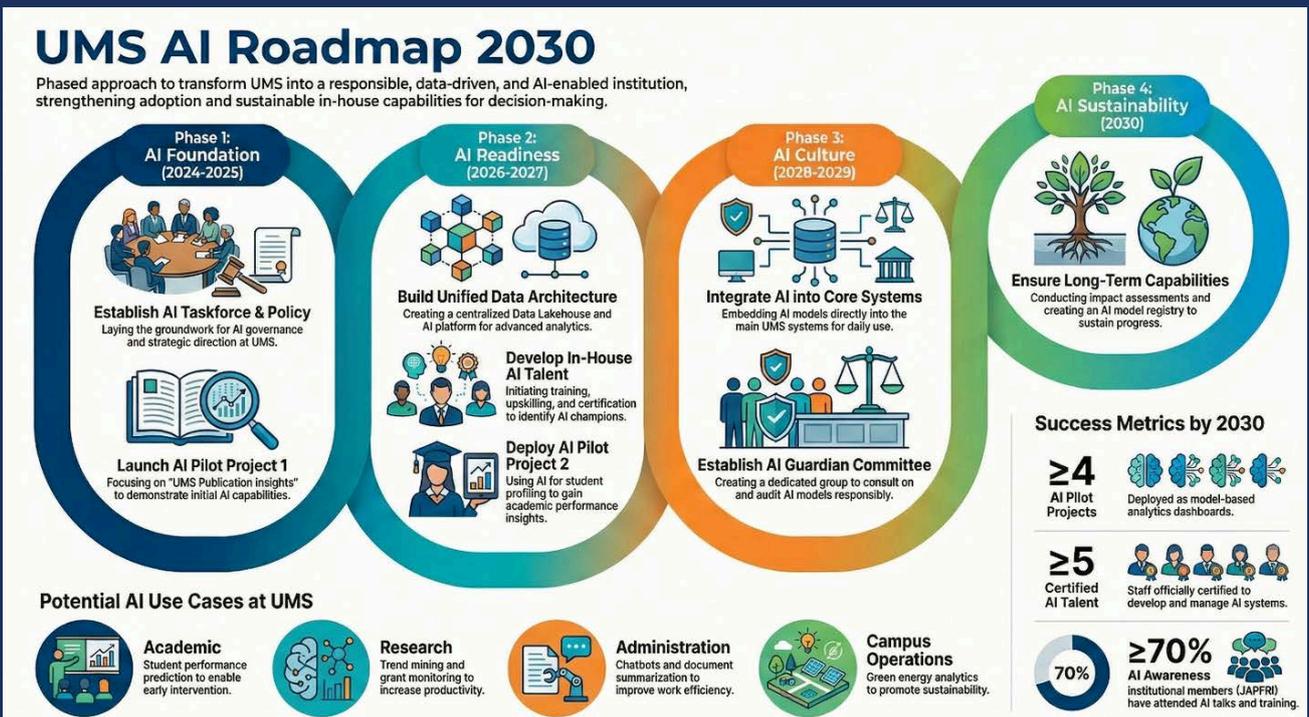


UMS AI Roadmap 2030

Building on this foundation, we will expand the use of data analytics to generate actionable insights that support planning, monitoring and decision-making. These insights will directly inform our AI Action Plan developed based on the AI Development Framework & AI Roadmap 2030, guiding the responsible development and deployment of AI solutions that are aligned with institutional priorities, governance requirements and real-world impact.
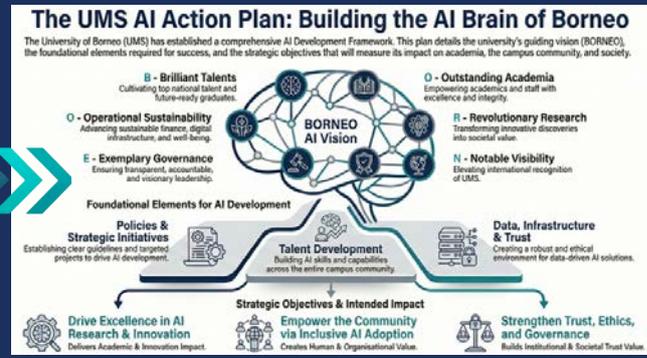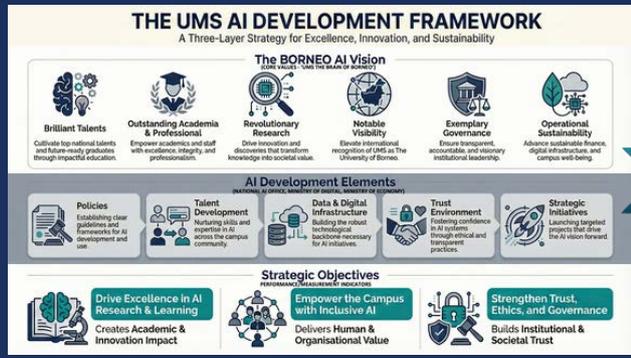
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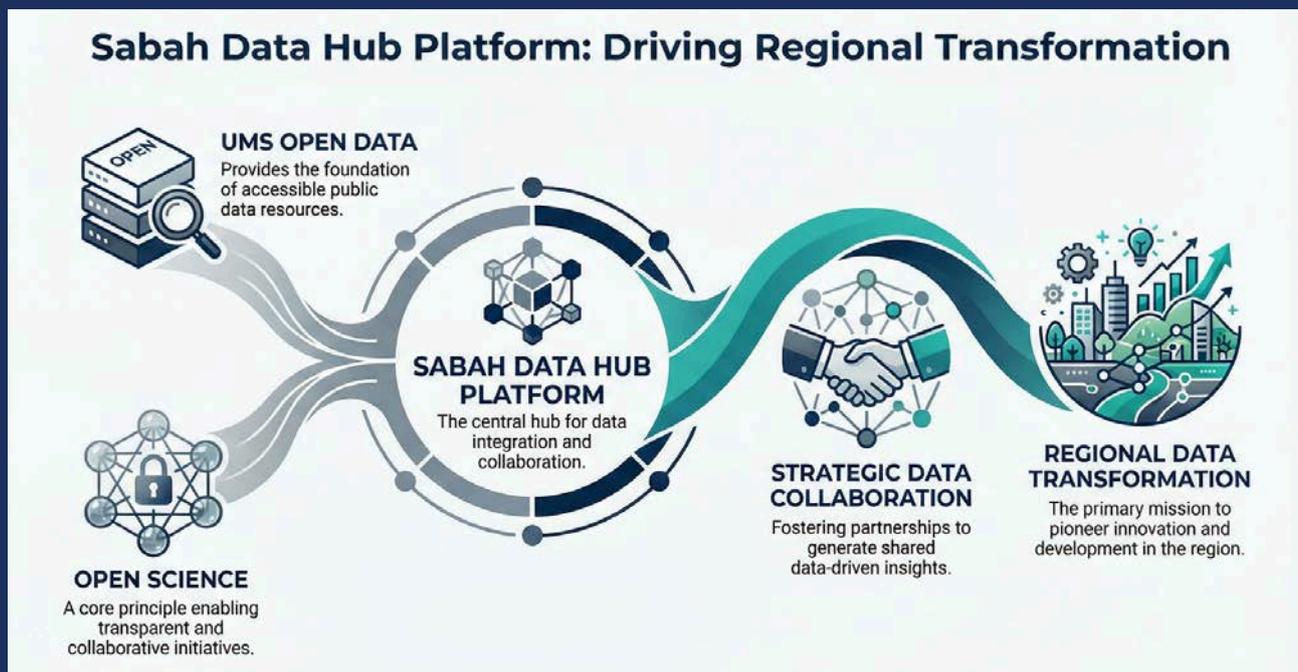


Sabah Data Hub Platforrm

The implementation of the Sabah Data Hub aligns with several goals:

• Regional Leadership: positioning as a central node in the Sabah data ecosystem, moving beyond internal data management to external strategic collaboration.
• Open Data & Open Science: directly supports the UMS Open Data Policy and the creation of its public web platform, ensuring that FAIR research data is accessible and transparent for wider societal benefit.
• Technological Foundation: operates on the UMS Unified Data Environment, which provides the necessary big data and AI infrastructure to support collaborative projects.
• Institutional Alignment: part of the broader UMS Digital Strategic Plan, which utilises AI Insights and unified data to drive both academic excellence and regional innovation.

# 2025 WALL OF FAME

# 2025 WALL OF FAME
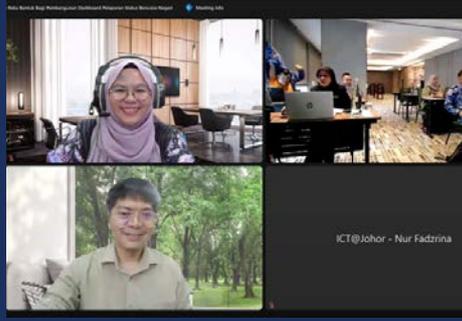
# 2025 WALL OF FAME

# WORKING TOGETHER

DARTIC welcomes collaboration with academic institutions, government agencies, industry partners and community organisations in the areas of data management, data governance, analytics, and artificial intelligence. We are keen to engage in joint research, applied projects, pilot initiatives, capacity building programmes and knowledge exchange that advance responsible, data-driven and AI-enabled solutions. Through collaboration, we aim to translate data and AI into meaningful insights, informed decision-making and impactful projects that supports institutional excellence, public good and sustainable digital transformation. Interested partners are invited to explore opportunities for collaboration with us.

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