

**Innovation and
Commercialization Working
Group
SMEs Committee Report**

November 2021 - GPAI Paris
Summit



GPAI

| THE GLOBAL PARTNERSHIP
ON ARTIFICIAL INTELLIGENCE

Please note that this report was developed by Experts of the Global Partnership on Artificial Intelligence's Working Group on Innovation & Commercialization.
The report reflects the personal opinions of GPAI Experts and does not necessarily reflect the views of the Experts' organizations, GPAI, the OECD, or their respective member states.

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AI Solution Portal

The SME Committee of GPAI Experts recognizes that one of the biggest hurdles of AI adoption, especially for SMEs, is getting past the initial inertia. Through discussions and industry experience sharing, the Committee identified three main challenges contributing to the initial inertia: difficulty in finding trusted AI solution providers, lack of knowledge to understand AI and identify AI use cases, and lack of guidance for AI adoption strategy. As a result, the SME Committee specifically developed an AI Solution Portal to address these challenges.

The Solution Portal is comprised of shared materials and programs from across GPAI member states, which reflect the common goal and spirit among the Experts in the Committee: the sense of urgency to help SMEs be prepared for the new economy. Each member state will be able to adopt the portal for local use by changing the logo, color scheme, images, information, and layout.

The Solution Portal proposes various means in helping SMEs to get started in employing AI. While AI Solution Providers can list their solutions on the platform, the Solution Portal admin must approve those AI solutions before they are published. This approval process ensures trusted and quality AI solution listings on the platform. In addition, other than the technicalities of AI solutions, the platform also ensures that all listed AI solutions are compliant with established ethical principles on AI usage, such as GPAI's values and the [OECD Principles on Artificial Intelligence](#). This way, SMEs can focus on applying AI to enhance their business operations rather than getting bogged down with extraneous details.

GPAI AI Maturity Index for SMEs (AIMIND)

The common goal between all Experts in the Committee also manifested into the GPAI AI Maturity Index for SMEs (AIMIND). The SME Committee develops AIMIND based on AI Readiness Index (AIRI) from AI Singapore (AISG) and AI Maturity Assessment Tool from Initiative for Applied AI (appliedAI). It helps SMEs understand their current AI maturity and identify the appropriate approach to adopt AI solutions. For instance, AIMIND would recommend AI Unaware SMEs to consider adopting ready-made AI solutions instead of developing one.

AIMIND consists of 12 questions to assess the AI maturity of organizations across five key pillars of AI adoption: Organizational Maturity; Ethics and Governance Maturity; Business Value Maturity; Data Maturity, and Infrastructure Maturity. SMEs keen to undergo AIMIND assessment could take the self-assessment via the portal.

Summary

Overall, the Experts in the SMEs Committee are highly encouraged by the results achieved through the collaboration and common beliefs shared. The Committee looks forward to delivering the rest of the initiatives as stated in the global Innovation & Commercialization Working Group Report.

Section 1: Matching of SMEs to AI Solution Providers

AI Solution Portal

The Solution Portal integrates AI Resources, AI Solution Matching, and the GPAI AI Maturity Index for SMEs (AIMIND), all designed to help SMEs accelerate their AI adoption. In addition, SMEs will be able to search for relevant AI use cases on the homepage of the Solution Portal.

Image 1: Screenshot of the home page of the Solution Portal

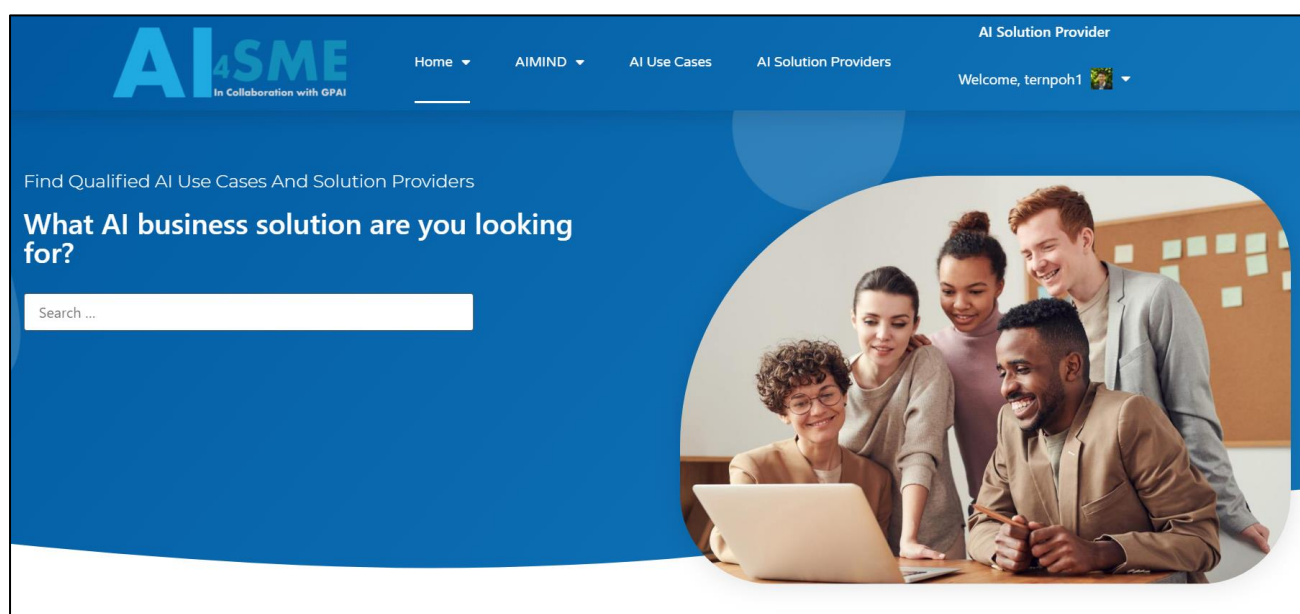
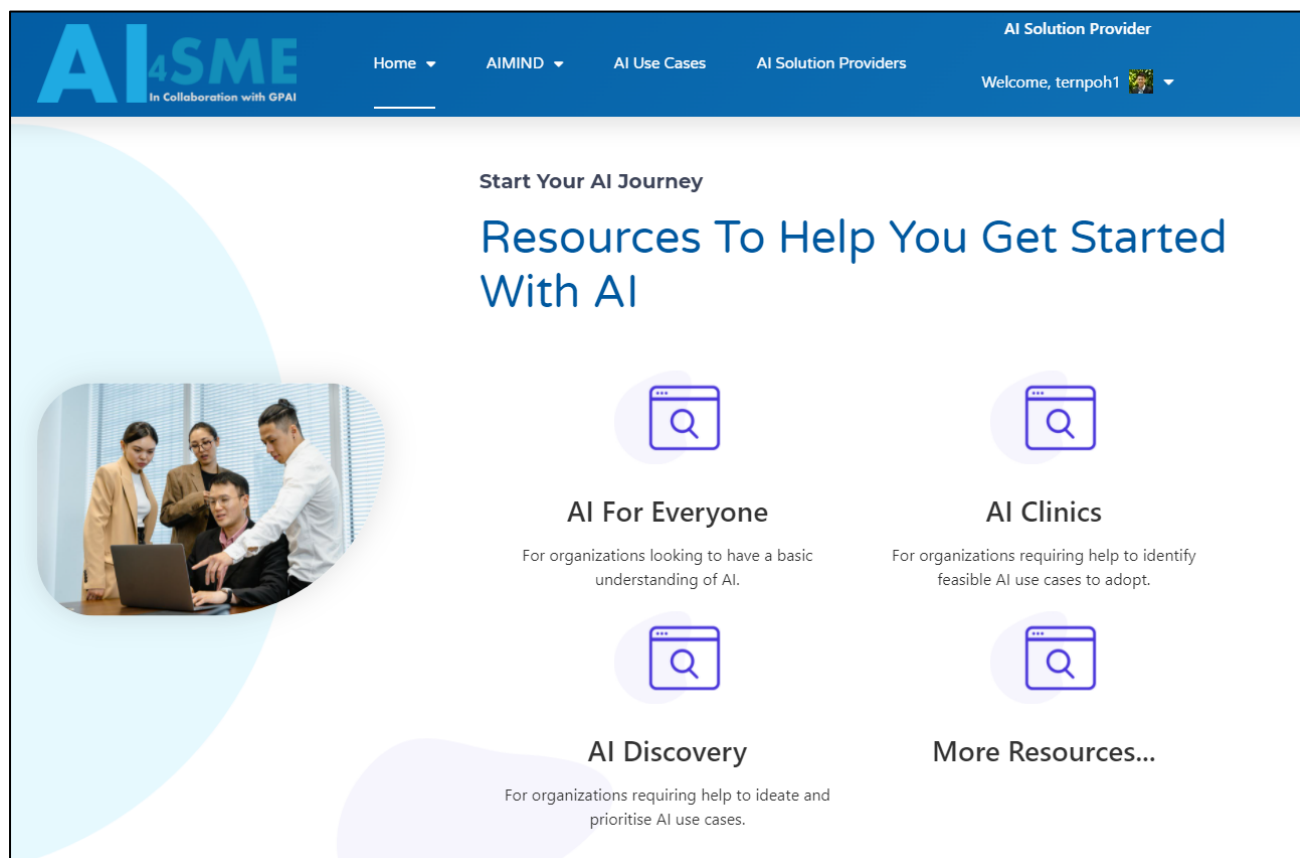


Image 2: Screenshot of the available resources for SMEs to learn about AI and get started



AI Use Cases

A key feature of the Solution Portal is to provide organizations, especially SMEs, with resources to help them identify the type of projects they could launch and appropriate AI solutions providers they could consider.

In particular, the Solution Portal hosts a collection of success stories, use cases that SMEs implemented, and the benefits they gained. The Solution Portal has a unique focus on AI Maturity Suitability, ethics, and resources required for AI solution implementation. These will help SMEs in identifying appropriate AI solutions to consider.

Image 3: Screenshot of AI use cases on the Solution Portal

The screenshot displays the 'AI4SME' website, which is 'In Collaboration with GPAI'. The navigation bar includes links for Home, AIMIND, AI Use Cases (which is the active page), and AI Solution Providers. A user is logged in as 'tempoh1'. The main heading is 'List Of AI Use Cases' with the subtitle 'From Our Qualified AI Solution Providers'. On the left, there are four filter sections: 'I am looking for AI Solutions in' with a search bar, 'Reset', 'AI Maturity Suitability' with a dropdown set to 'All Items', 'Industry' with a dropdown set to 'All Industries', and 'Implementation Costs' with a dropdown set to 'All Items'. The main content area features two use case cards. The first card, from 'ZELRO', is titled 'Social Security Certificate Verification' and describes a manual validation task. The second card, from 'mev', is titled 'Music Label' and discusses automating music classification.

AI4SME
In Collaboration with GPAI

Home | AIMIND | **AI Use Cases** | AI Solution Providers

Welcome, tempoh1

List Of AI Use Cases

From Our Qualified AI Solution Providers

I am looking for AI Solutions in

Search ...

Reset

AI Maturity Suitability

All Items

Industry

All Industries

Implementation Costs

All Items


Social Security Certificate Verification

Managers have to manually validate that the social security certificate is correct: this is a repetitive, time-consuming task. How can this company use AI to automate the

Music Label

The SME cannot classify its music works and thus is missing sales to larger music labels. How can this company use AI to automate the


Image 4: Detailed view of an example of AI use case




In Collaboration with GPAI

Home ▾AIMIND ▾AI Use CasesAI Solution Providers

AI Solution Provider

Welcome, ternpoh1  ▾

Dynamic Bundling for Parcels Delivery



AI Maturity Suitability: AI Ready

Duration (months): 4

Implementation Cost: <\$10,000

Total Funding Amount: Not Applicable

Eligible for Funding: Not Applicable

[Enquire now](#)

Business challenges

How can uParcel use AI to help riders bundle delivery jobs to increase their efficiency and user experience?

Profile of AI solution seeker

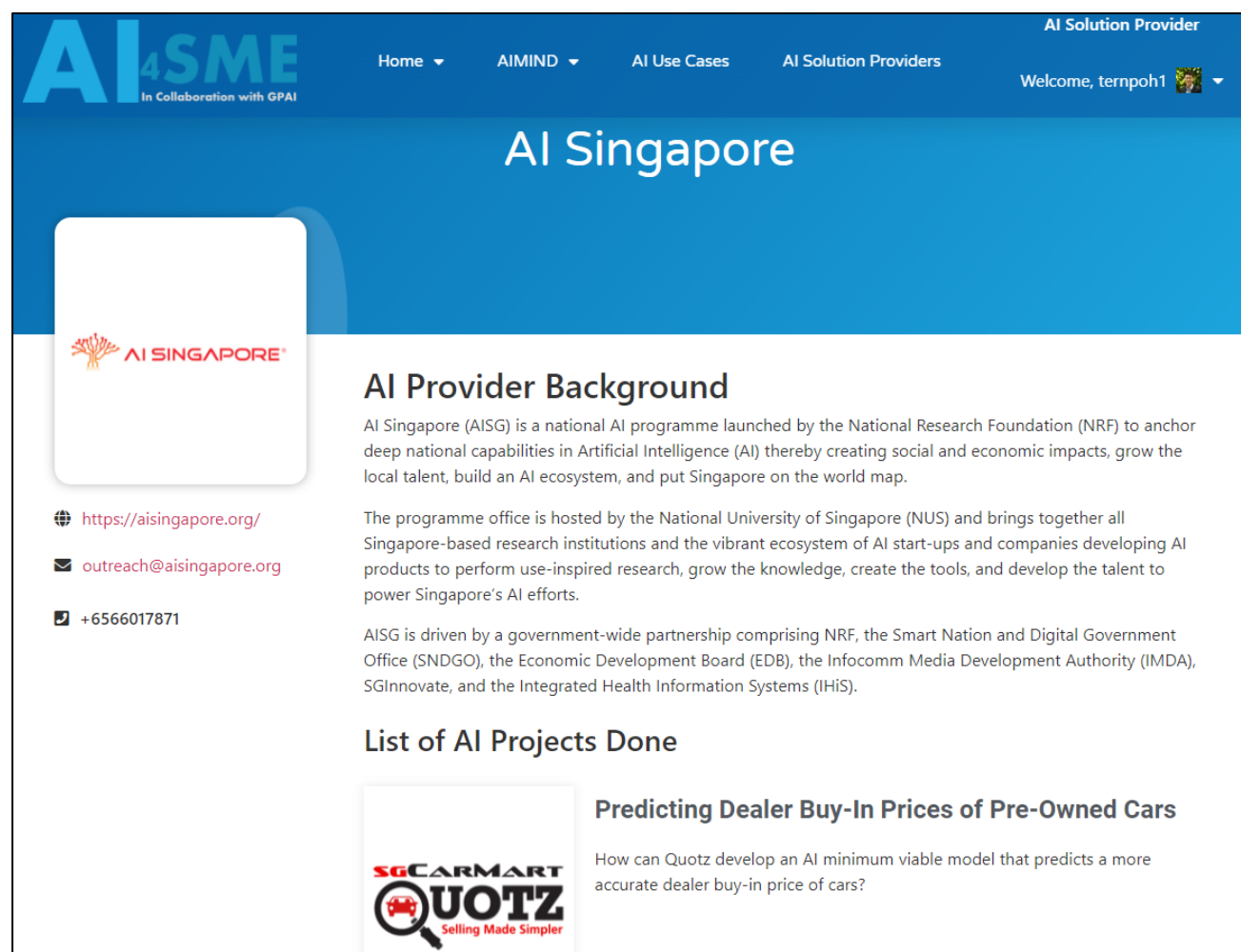
uParcel

uParcel is an on-demand 24/7 courier platform in Singapore. They are the largest homegrown same-day delivery company in Singapore. Leveraging on a decentralised distributed model, they deliver point to point without consolidation at warehouses. Their mobile app matches delivery bookings to their network of crowdsource drivers on the go. Providing fast and flexible delivery options for the growing e-commerce sector.

AI Solution Provider Details

Along with the AI use cases, the Solution Portal also hosts details provided by AI Solution Providers. Therefore, the SME, as an interested AI Solution Seeker, could contact the Provider for further information or AI solution implementation. To ensure quality and trusted listing, the AI Solution Providers will only be listed after the website administrator has approved their submission.

Image 5: Screenshot of AI Solution Provider details




The screenshot displays the AI Singapore website interface. At the top, a blue navigation bar contains the 'AI4SME' logo (In Collaboration with GPAI) on the left and a menu with 'Home', 'AIMIND', 'AI Use Cases', and 'AI Solution Providers' in the center. On the right of the navigation bar, it says 'AI Solution Provider' and 'Welcome, ternpoh1' with a user profile icon. Below the navigation bar, a large blue banner reads 'AI Singapore'. The main content area is white and features a large white box on the left containing the 'AI SINGAPORE' logo and contact information: a globe icon for 'https://aisingapore.org/', an envelope icon for 'outreach@aisingapore.org', and a phone icon for '+6566017871'. To the right of this box, the section 'AI Provider Background' is displayed. It includes a paragraph about AISG being a national AI programme launched by the NRF to anchor deep national capabilities in AI, followed by a paragraph about the programme office being hosted by NUS. Below this, it lists the government-wide partnership comprising NRF, the Smart Nation and Digital Government Office (SNDGO), the Economic Development Board (EDB), the Infocomm Media Development Authority (IMDA), SGInnovate, and the Integrated Health Information Systems (IHIS). Further down, the section 'List of AI Projects Done' is shown, featuring a project titled 'Predicting Dealer Buy-In Prices of Pre-Owned Cars' with the 'SG CARMART QUOTZ' logo (Selling Made Simpler) and a brief description of the project's goal.

AI Solution Provider

Home AIMIND AI Use Cases AI Solution Providers

Welcome, ternpoh1

AI Singapore



<https://aisingapore.org/>

outreach@aisingapore.org

+6566017871


AI Provider Background

AI Singapore (AISG) is a national AI programme launched by the National Research Foundation (NRF) to anchor deep national capabilities in Artificial Intelligence (AI) thereby creating social and economic impacts, grow the local talent, build an AI ecosystem, and put Singapore on the world map.

The programme office is hosted by the National University of Singapore (NUS) and brings together all Singapore-based research institutions and the vibrant ecosystem of AI start-ups and companies developing AI products to perform use-inspired research, grow the knowledge, create the tools, and develop the talent to power Singapore's AI efforts.

AISG is driven by a government-wide partnership comprising NRF, the Smart Nation and Digital Government Office (SNDGO), the Economic Development Board (EDB), the Infocomm Media Development Authority (IMDA), SGInnovate, and the Integrated Health Information Systems (IHIS).

List of AI Projects Done



Predicting Dealer Buy-In Prices of Pre-Owned Cars

How can Quotz develop an AI minimum viable model that predicts a more accurate dealer buy-in price of cars?

Section 2: Guidance for AI Adoption Strategy

GPAI AI Maturity Index for SMEs (AIMIND)

The SME Committee has integrated information on the GPAI AI Maturity Index for SMEs (AIMIND) and its self-assessment tool into the portal. Organizations could learn the various critical success factors for AI adoption and undergo AIMIND self-assessment to understand their AI Maturity and obtain a detailed explanation of their result.

Image 6: Screenshot of the AIMIND information page



AI4SME
In Collaboration with GPAI

Home | AIMIND | AI Use Cases | AI Solution Providers

AI Solution Provider

Welcome, tempoh1

AI Maturity Index (AIMIND)

Powered by GPAI

The AIMIND for SME

AIMIND is an industry-focused AI readiness assessment framework developed by the SME Committee under GPAI's Innovation and Commercialisation working group. It crystallises and distils the critical success factors for AI adoption based on the combined industry experience of committee of experts across industries and countries.

AIMIND allows business units and organisations to assess their AI readiness and identify the gap between their current and desired state, thereby enabling organisations to understand their suitable approaches to adopt AI and implement targeted programmes to increase AI readiness.

Ultimately, AIMIND translates abstract concepts into concrete actions to help organisations accelerate their AI adoptions.

	AI Unaware	AI Aware	AI Ready	AI Competent
Average Score	Less than 1	1 to 1.9	2 to 2.5	More than 2.5
General Capabilities	Might hear about AI but is unaware of applications	Savvy consumers of AI solutions. Capable of identifying use cases for AI applications	Capable of integrating pre-trained AI model into products or business processes	Capable of developing customized AI solutions for specific business needs
General Characteristics	Wait for vendors to convince use cases and business value of AI	Identified potential use cases and seek AI solutions from vendors	Evaluated viability of pre-trained AI models	Developed roadmap for AI implementation
AI Adoption Suitability	Consume ready-made, end-to-end AI solutions		Integrate pre-trained AI models and solutions for common AI applications	Develop customized AI model for unique business needs

Image 7: Screenshot of the AIMIND assessment page

AI4SME
In Collaboration with GPAI

Home AIMIND AI Use Cases AI Solution Providers

AI Solution Provider
Welcome, ternpoh1

AIMIND Assessment

1. Company Information2. Organizational Readiness3. Ethics and Governance Readiness4. Business Value Readiness5. Data Readiness6. Infrastructure Readiness

0% Complete1 of 6

Company Information

Organization Type *

Startup

Industry *


Accommodation and Food Service Activities

Email *

Company Name (optional)

Next

Image 8: Screenshot of the AIMIND result page



[Home](#)
[AIMIND](#)
[AI Use Cases](#)
[AI Solution Providers](#)

AI Solution Provider

Welcome, tempoh1

AIMIND Assessment Result: Your Organization is AI Aware

Organizations that fall within the same AIRI category tend to exhibit similar capabilities and characteristics; Table 2 below illustrates the common capabilities, characteristics, and AI adoption suitability for organizations in each category of AI readiness.

	AI Unaware	AI Aware	AI Ready	AI Competent
Average Score	Less than 1	1 to 1.9	2 to 2.5	More than 2.5
General Capabilities	Might hear about AI but is unaware of applications	Savvy consumers of AI solutions. Capable of identifying use cases for AI applications	Capable of integrating pre-trained AI model into products or business processes	Capable of developing customized AI solutions for specific business needs
General Characteristics	Wait for vendors to convince use cases and business value of AI	Identified potential use cases and seek AI solutions from vendors	Evaluated viability of pre-trained AI models	Developed roadmap for AI implementation
AI Adoption Suitability	Consume ready-made, end-to-end AI solutions		Integrate pre-trained AI models and solutions for common AI applications	Develop customized AI model for unique business needs

Table 2: AIMIND Classification Chart

Interpretation of AIMIND Result

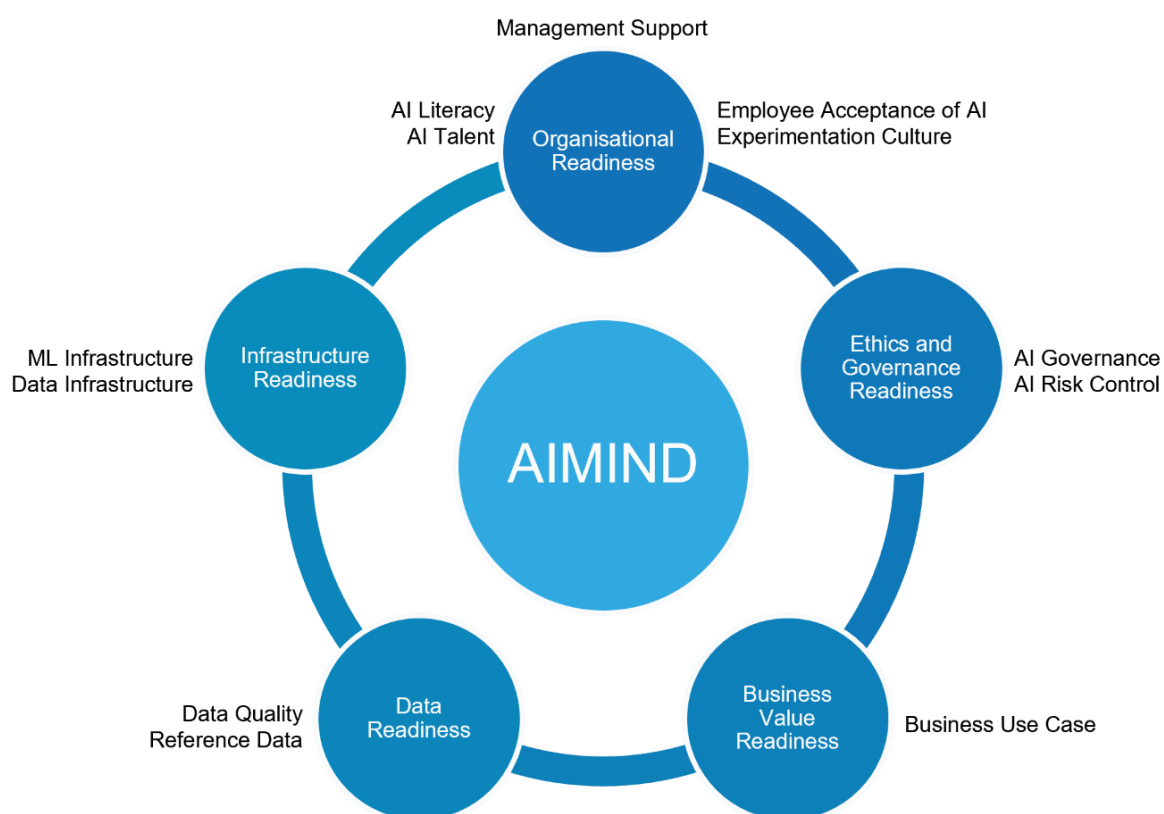
It is a common misconception that AI adoption is only suitable for larger or technology-based organizations. On the contrary, AI Unaware and AI Aware organizations, even if they lack data, talent, or ML infrastructure, could adopt ready-made AI solutions for their core or peripheral business activities. For instance, an AI Unaware or AI Aware law firm could implement a chatbot on its website to help answer queries from clients. The critical difference is that AI Aware organizations could identify better AI use cases, procure relevant AI solutions, and potentially benefit more from AI adoption.

Section 3: Information on AIMIND

AIMIND Framework

AIMIND consists of five pillars, which map to 12 dimensions. The five pillars are interdependent and synergistic. Collectively, the five main pillars of AIMIND provide a holistic assessment of an organization's maturity for adopting AI.

Image 9: The five pillars of AIMIND



AIMIND Classification

AIMIND will score and categorize the organization into either one of the four categories of AI maturity - AI Unaware, AI Aware, AI Ready, and AI Competent – based on the average score across all dimensions. By knowing which category they belong to, the organization could appropriately choose which AI solutions to adopt. For instance, AI Unaware and AI Aware organizations should consider adopting ready-made AI solutions rather than building one from scratch.

Image 10: The four levels of AI Maturity identified by AIMIND

	AI Unaware	AI Aware	AI Ready	AI Competent
Average Score	Less than 1	1 to 1.9	2 to 2.5	More than 2.5
General Capabilities	Might hear about AI but is unaware of applications	Savvy consumers of AI solutions. Capable of identifying use cases for AI applications	Capable of integrating pre-trained AI model into products or business processes	Capable of developing customized AI solutions for specific business needs
General Characteristics	Wait for vendors to convince use cases and business value of AI	Identified potential use cases and seek AI solutions from vendors	Evaluated viability of pre-trained AI models	Developed roadmap for AI implementation
AI Adoption Suitability	Consume ready-made, end-to-end AI solutions		Integrate pre-trained AI models and solutions for common AI applications	Develop customized AI model for unique business needs

AIMIND Assessment Considerations

AIMIND assesses beyond the organization's technical capabilities, such as AI Talent, Data, and Machine Learning Infrastructure. AIMIND also considers the organizational maturity, such as AI Literacy of employees, which leads to Employee Acceptance of AI. Most importantly, the framework also assesses whether the organization has appropriate governance and control for ethical and risk-based approaches to using AI.

Image 11: Dimensions assessed by AIMIND

Pillars	Dimensions	Assessments
Organizational Readiness	Management Support	Whether the organization has allocated resources for AI initiatives
	AI Literacy	Whether the employees could identify potential AI use cases and be savvy consumers of AI solutions
	AI Talent	Whether the organization has the capabilities to develop, integrate, and maintain AI models
	Employee Acceptance of AI	Whether the employees trust and accept AI-based systems
	Experimentation Culture	Whether the organization has an experimentation culture for employees to explore and develop AI use cases
Ethics and Governance Readiness	AI Governance	Whether the organization has appropriate governance to avoid unintentionally harming end-users
	AI Risk Control	Whether the organization has a proper classification of the risk level of AI systems
Business Value Readiness	Business Use Case	Whether the organization has identified suitable AI use cases and assessed their value propositions
Data Readiness	Data Quality	Whether the organization has processes to ensure the quality (accuracy, completeness) of data collected
	Reference Data	Whether there is a single source of truth, consistency of data format, and reliable metadata
Infrastructure Readiness	Machine Learning (ML) Infrastructure	Whether the organization has appropriate and sufficient ML infrastructure (e.g., GPU, memory) to support AI model training and deployment
	Data Infrastructure	Whether the organization is using appropriate data infrastructure (e.g., data lake) as a central repository of data

AIMIND Scoring Methodologies

Across all dimensions, AIMIND returns the organization a score of 0, 1, 2, and 3 for each response selected under the AI Unaware, AI Aware, AI Ready, and AI Competent, respectively. The average score across all dimensions determines the AI Readiness category of the organization.

Image 12: AIMIND's organizational AI maturity level

Dimensions	Organizational AI Maturity Level			
	AI Unaware	AI Aware	AI Ready	AI Competent
Management Support	No AI initiative announced by the management	Management has announced support for AI initiatives, but there are no resources allocated for AI initiatives	Management has allocated resources for AI initiatives, but there is no strategic AI roadmap	Management has allocated resources for AI initiatives, and there is a strategic AI roadmap available
AI Literacy	< 25% of employees are AI literate	25% to 50% of employees are AI literate	50% to 75% of employees are AI literate	> 75% of employees are AI literate
AI Talent	No AI talents within organizations	Organization has employees who are beginners in AI (e.g. able to use no-code / low-code platform to build AI prototype)	Organization has employees who are intermediate in AI (e.g. able to make API call to AI services)	Organization has employees who are advanced in AI (e.g. able to develop AI model)
Employee Acceptance of AI	Employees resist using AI-based systems due to fear of their jobs getting replaced	Employees adopt AI-based systems but don't trust the results generated by AI systems	Employees trust AI-based systems and have no objections to using such systems	Employees trust AI-based systems and understand that the AI-based systems rely on employees' interactions to increase their performance over time

Experimentation Culture	Organization has zero-tolerance towards failed AI-projects	Organization avoids experimentation and seeks to implement only tried-and-tested AI solutions	Organization understands that to succeed in AI transformation, experimentation is required and predicting outcomes may not be possible	Organization actively encourages employees to explore experiments for new AI applications
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Image 13: AIMIND's ethics and governance AI maturity level

Dimensions	Ethics and Governance AI Maturity Level			
	AI Unaware	AI Aware	AI Ready	AI Competent
AI Governance	Organization is unaware of AI governance concepts	Organization is aware of AI governance but has yet to implement it	Organization practices ad-hoc AI governance assessment on AI application and development	Organization has policies and processes on AI governance to guide AI application and development
AI Risk Control	Organization is unaware of the importance of assigning AI use cases to risk levels	Organization is aware of the importance of assigning AI use cases to risk levels, but has yet to decide on the agreed-on criteria	Organization has agreed-on criteria to assign AI use cases to risk-levels according to an established regulatory framework (e.g. EU AI Regulation), but the process of assigning is not standardized	Organization has agreed-on criteria to assign AI use cases to risk-levels according to an established regulatory framework (e.g. EU AI Regulation), and a standard process is implemented for each AI system

Image 14: AIMIND's business value AI maturity level

Dimension	Business Value AI Maturity Level			
	AI Unaware	AI Aware	AI Ready	AI Competent
Business Use Case	Organization has not identified use cases for AI solutions	Organization has identified use cases for AI solutions but has yet to assess their value proposition	Organization has identified use cases for AI solutions, but value propositions are derived from industry reports	Organization has identified use cases for AI solutions. Value propositions derived by internal stakeholders

Image 15: AIMIND's data AI maturity level

Dimensions	Data Readiness AI Maturity Level			
	AI Unaware	AI Aware	AI Ready	AI Competent
Data Quality	Organization does not have any employees responsible for overseeing and managing data quality	Organization has employees with informal responsibilities for overseeing and managing data quality	Organization has employees with responsibilities for overseeing and managing data quality	Organization has processes, policies, and employees with responsibilities for overseeing and managing data quality
Reference Data	Organization is unaware of the importance and does not have a single source of truth for data; there are no established definitions and units of measurement for consistency	Organization is aware of the importance but does not have a single source of truth for data; there are no established definitions and units of measurement for consistency	Organization has a single source of truth for data, but common data definition and units of measurements are lacking	Organization has a single source of truth for data; common data definition and units of measurements are established to ensure consistency

Image 16: AIMIND's infrastructure AI maturity level

Dimensions	Infrastructure AI Maturity Level			
	AI Unaware	AI Aware	AI Ready	AI Competent
Machine Learning Infrastructure	Organization is unaware of the importance of ML infrastructure for AI model serving	Organization lacks but is aware of the importance of ML infrastructure for AI model serving	Organization has adequate ML infrastructure to support AI model serving	Organization has adequate ML infrastructure (e.g. GPU) to support AI model training and deployment
Data Infrastructure	Most data are stored in non-digital format	Most data is stored in standalone digital format (e.g., Excel sheets)	Most data is stored in centralized repositories (e.g. data lake, data warehouse)	Most data is stored in centralized repositories, and there is an overview of data dictionaries