Broad Adoption of AI by SMEs: Overview of 2023 Activities and 2024 Outlook

GPAI Innovation & Commercialization Working Group

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GPAI | THE GLOBAL PARTNERSHIP ON ARTIFICIAL INTELLIGENCE

This report was developed by Experts involved in the Global Partnership on Artificial Intelligence's project on 'Broad Adoption of AI by SMEs'. The report reflects the personal opinions of the GPAI Experts and External Experts involved and does not necessarily reflect the views of the Experts' organizations, GPAI, or GPAI Members. GPAI is a separate entity from the OECD and accordingly, the opinions expressed and arguments employed therein do not reflect the views of the OECD or its Members.

This report is not an academic report. Rather, it is an update on the activities related to the development for the AI4SMEs portal (https://ai4smeportal.org/) from GPAI's Broad Adoption of AI by SMEs Project Advisory Group.

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Introduction

Small and Medium Enterprises (SMEs), Non-Profit Organizations (NGOs), and government-funded institutions typically employ 80% of a country's workforce. However, these organizations usually have low AI maturity as they often lack the resources, skills, data, or IT infrastructure to develop and adopt AI solutions. Understanding AI's capabilities, identifying AI use cases, and applying AI solutions are critical success factors for these organizations and the economies that host them. Early adopters of AI will have a critical advantage from experience with AI applications.

The GPAI "Broad Adoption of AI by SMEs" working group has been working hard to address this issue and promote the widespread adoption of AI. This report highlights the significant achievements made in 2023 towards realizing this vision.

The SMEs Committee recommendations were delivered as both a report, and also actualized as a web portal ("AI4SME Portal") since 2021 which implements the report's recommendations. The portal is meant for matching SMEs with low AI maturity and solution providers that have the relevant experience in delivering the AI solutions that meet the needs of the SMEs.

Progress Report

In the previous year, the field test was conducted to validate the usability of the AI4SME Portal ("portal") in matching SMEs and solution providers ("SPs"), and the details are available in the 2022 Broad Adoption of AI by SMEs Report. In essence, it was an opportunity to solicit relevant feedback on the portal features and the process of managing the portal by administering usability feedback surveys for SMEs and solution providers. The field test was participated by France, Germany, Poland, and Singapore ("field test participants").

The portal was built as a template that could allow any GPAI member to customize according to the local context and manage the portal with their appointed portal operator. As such, the SMEs Committee achieved the following milestones in 2023:

Milestone 1: Launched the AI4SME portals

Following the success in 2022 where the SMEs Committee finalized the portal template for the purpose of testing (3-month field test), both the AIMIND ("AI Maturity Index") and SPMIND ("Solution Provider Maturity Index") were developed and integrated into the portal. AIMIND is intended to evaluate the AI maturity of an SME (e.g., AI Aware, AI Unaware) while SPMIND evaluates the maturity of an AI solution provider. SPMIND was incorporated as a required stage of onboarding the solution providers to the portal. This allows the portal operator to onboard solution providers with knowledge of their AI maturity.

Both countries, Singapore (https://connect.aisingapore.org/ai4sme/) and Poland (https://ai4msp.pl) have launched their AI4SME portal successfully in 2023.

Singapore Implementation

Singapore (https://connect.aisingapore.org/ai4sme/) has implemented the AI4SME portal successfully, connecting local SMEs with AI solution providers.

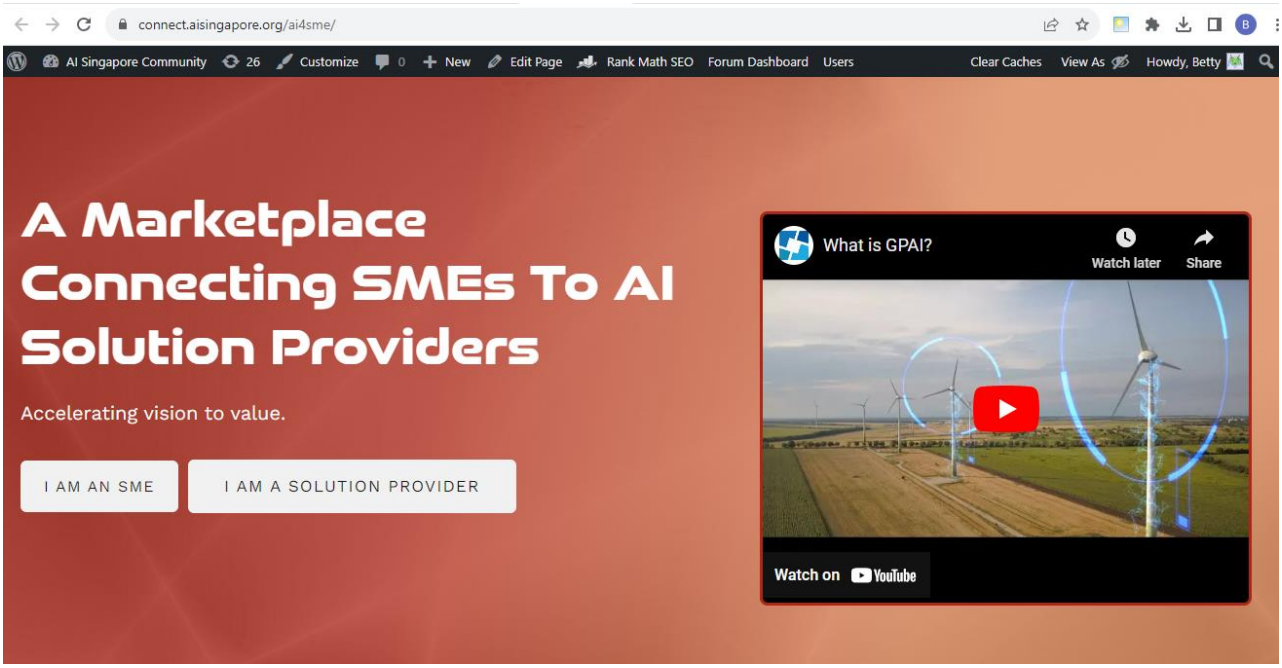

Image 1.1: Singapore's AI4SME portal homepage showing how SMEs and Solution Providers can be onboarded

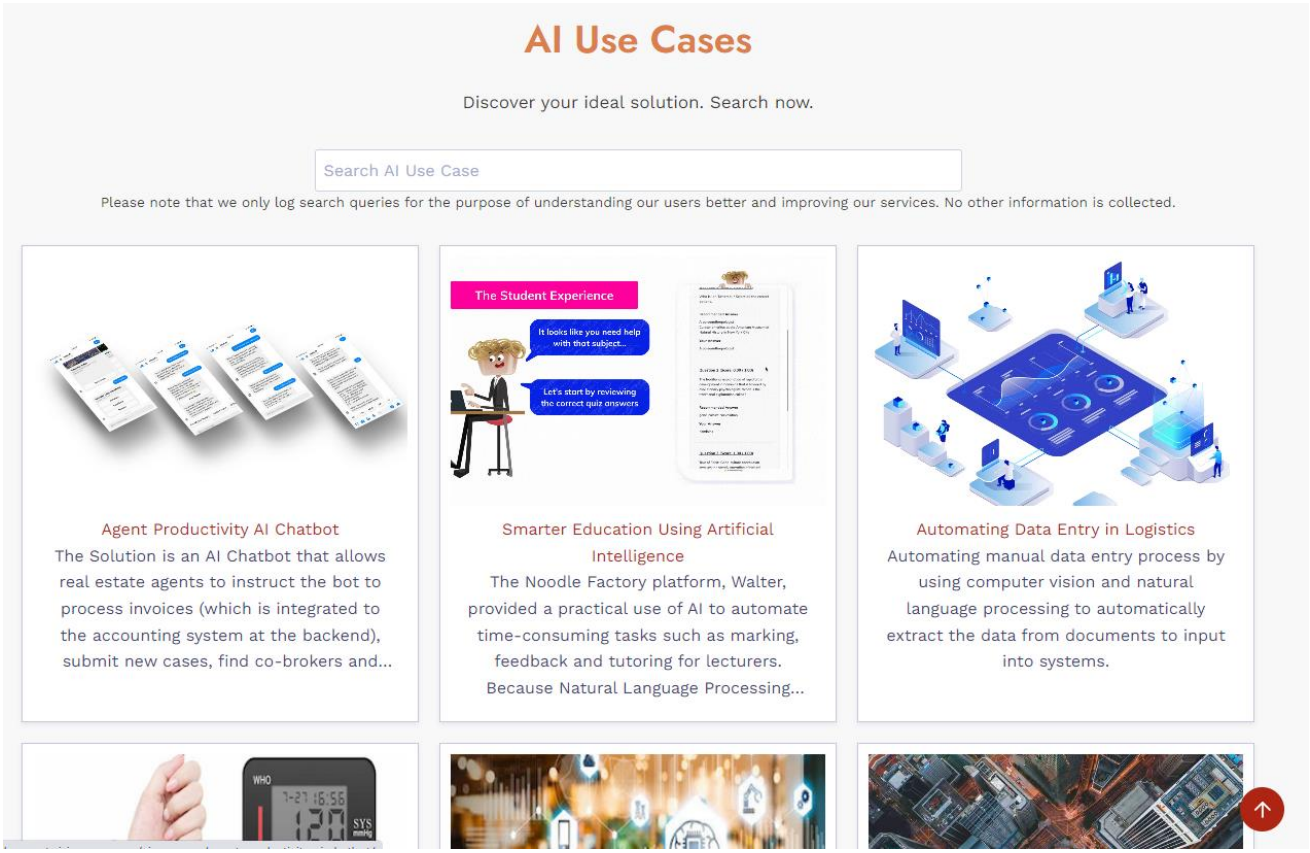

Image 1.2: Singapore's AI4SME portal with their respective AI Use Cases provided by the solution providers

Poland Implementation

Poland (https://ai4msp.pl) has implemented the AI4SME portal successfully in their local language, connecting local SMEs with AI solution providers.

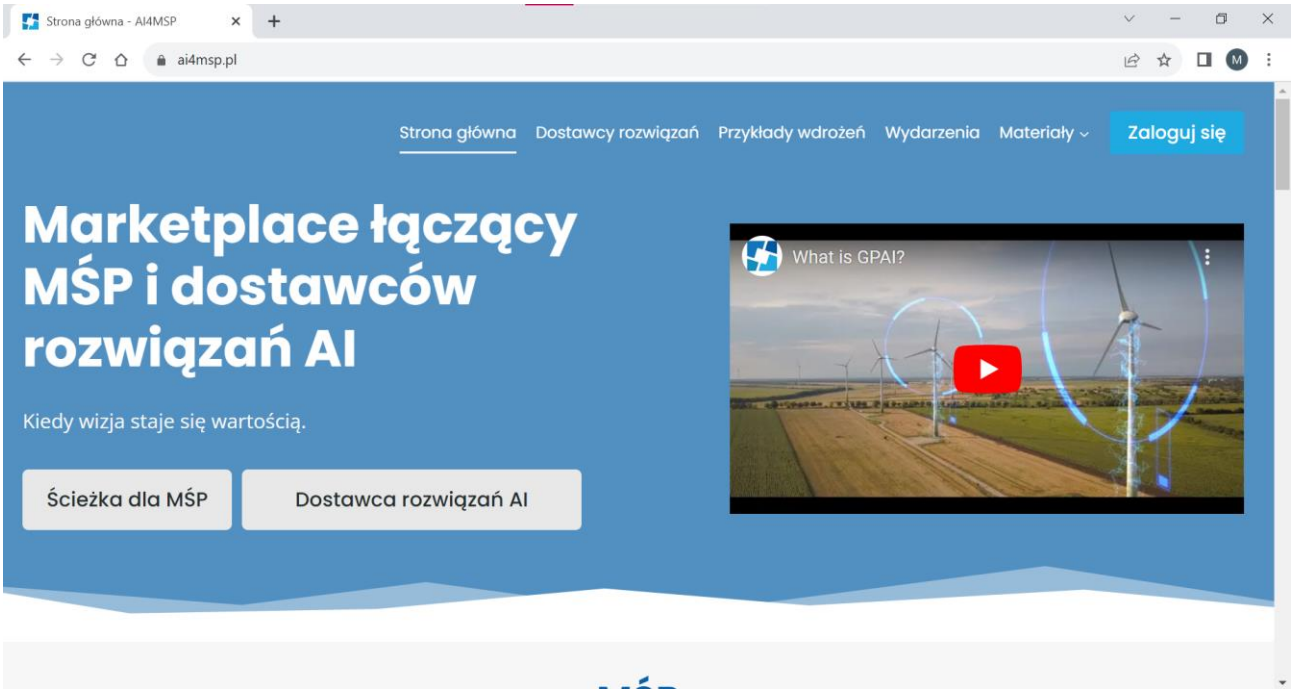

Image 2.1: Poland's AI4SME portal homepage showing how SMEs and Solution Providers can be onboarded

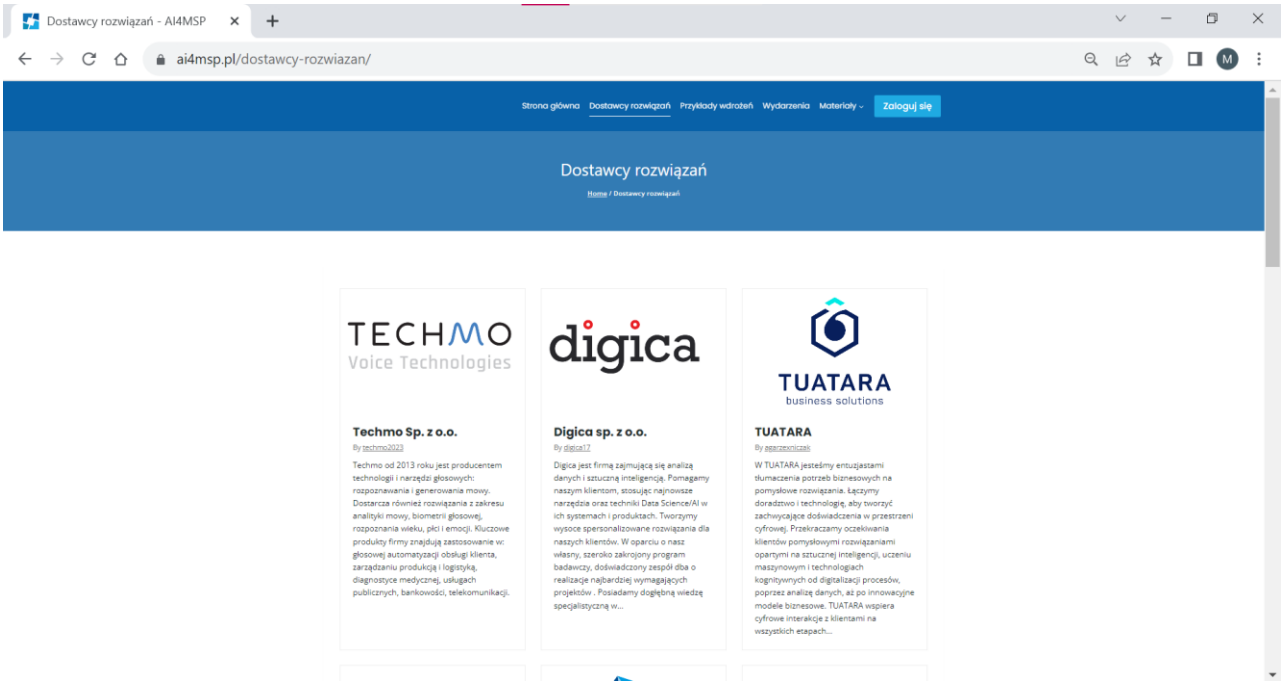

Image 2.2: Poland's AI4SME portal with their respective AI Use Cases provided by the solution providers

Formalizing the Setup Process

To formalize the setup process with other countries, template letters were created, and needs to be signed prior the setting up of each AI4SME portal: GPAI to country rep to use AI4SME and appoint portal operators (Template 1) and Country rep to portal operators (Template 2).

Milestone 2: Go-to-market guides and first-time user instructions

Detailed go-to-market guides have been developed based on the user journeys, specifically for the Small Medium Enterprises (SME), solution provider and portal operator.

Information pertinent to each type of user was evaluated in the previous field test: each participant worked with their portal operator to manage the portal while they conducted outreach to the SMEs and solution providers to participate in the field test. To ascertain the usability of the portal, the field test was focused on getting 3 main users – SMEs, solution providers and portal operators – to use the portal and soliciting their usability feedback. As a result, from the field test, there was additional finetuning of the outreach strategies for AI Unaware and Aware SMEs and solution providers. This resulted in a library of best practices for use during the portal launch.

For ease of use, these resources can be accessed when a new user registers and logs into the AI4SME portal (https://ai4smeportal.org/). A quick introduction of what the AI4SME portal is about and what the new user can expect is provided on the homepage.

On the portal homepage, an additional instruction was added to assist new users with their first step: “Please register to get access to the AI4SME portal. The AI4SME Portal is only available to GPAI member countries representatives and their appointed operators. Once you have registered, we will follow up to determine your eligibility and will approve your registration and access to the portal resources.”

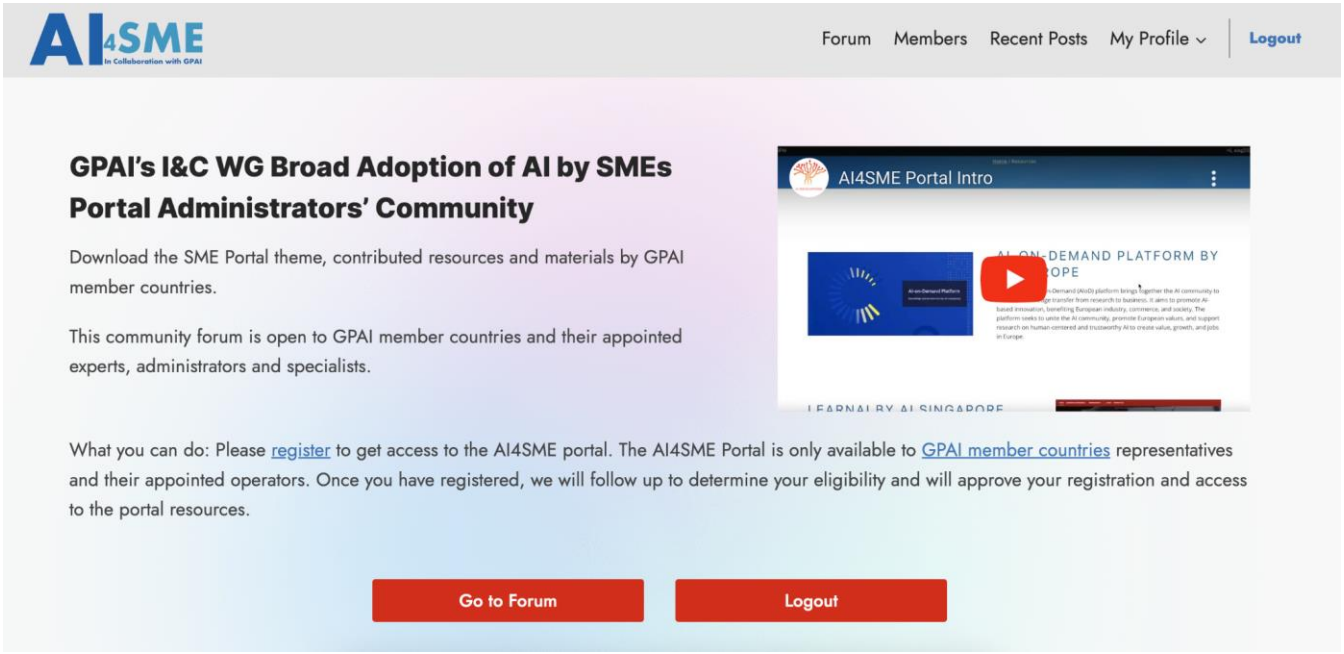

Image 3: AI4SME portal homepage to give new users an overview of what to expect from the portal setup (video) and instructions on how to get started (if they are part of the GPAI member countries)

Milestone 3: Technical improvements on the AI4SME portal

There are two key technical improvements on the backend of the AI4SME portal: Firstly, the AI4SME portal has implemented semantic search (instead of using keyword search). The previous "keyword search" methodology relies on matching specific keywords or phrases, while the improved "semantic search" methodology understands the underlying meaning of the query and identifies related concepts, synonyms, and even ambiguous terms. Hence, the search results are improved based on the users' needs and intentions.

Secondly, the AI4SME portal has implemented the Threshold Implementation new feature. Previously, the problem was that there was no filter on irrelevant results, as all results are stack-ranked (based on relevance) and visible in the search results.

As a result, it is confusing for users to discern what are the feasible solution providers. As a solution, the new feature provides the admin user an option to decide from multiple threshold options. As a default, the Threshold is set at Medium Precision (called Balance), with other options called Stringent (displays the most precise results, setting could yield no results depending on the search query) and All Results (displays all solutions available in the database, sorted by relevance to the search query).

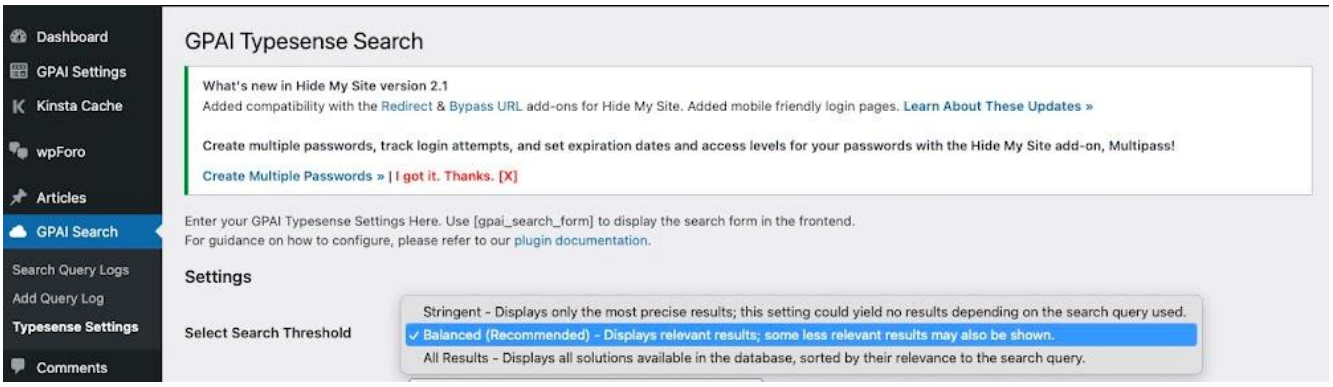

Image 5.1: Different settings for controlling threshold (Admin View)

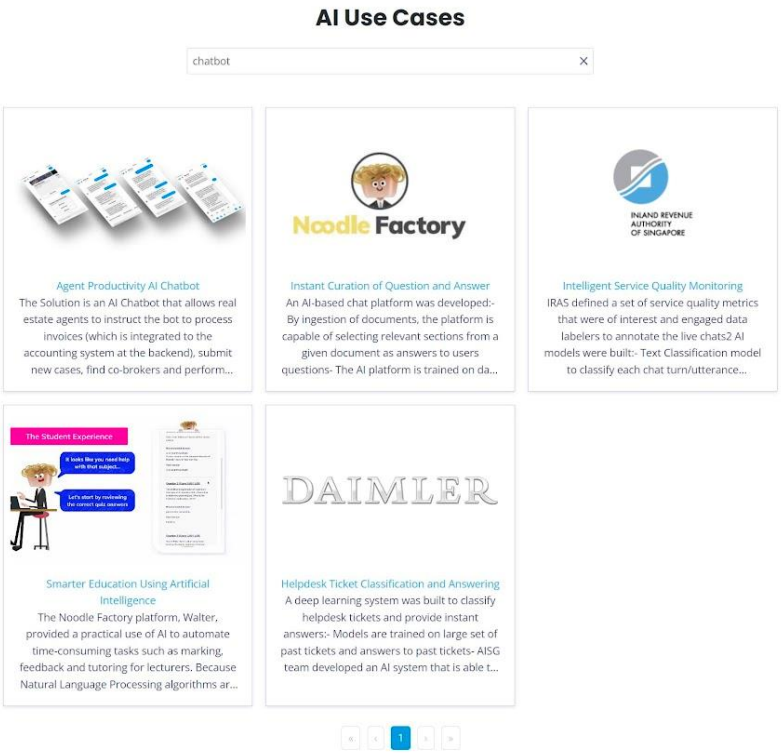

Image 5.2: Balanced setting (default) produces 5 results from the semantic search on “chatbot”

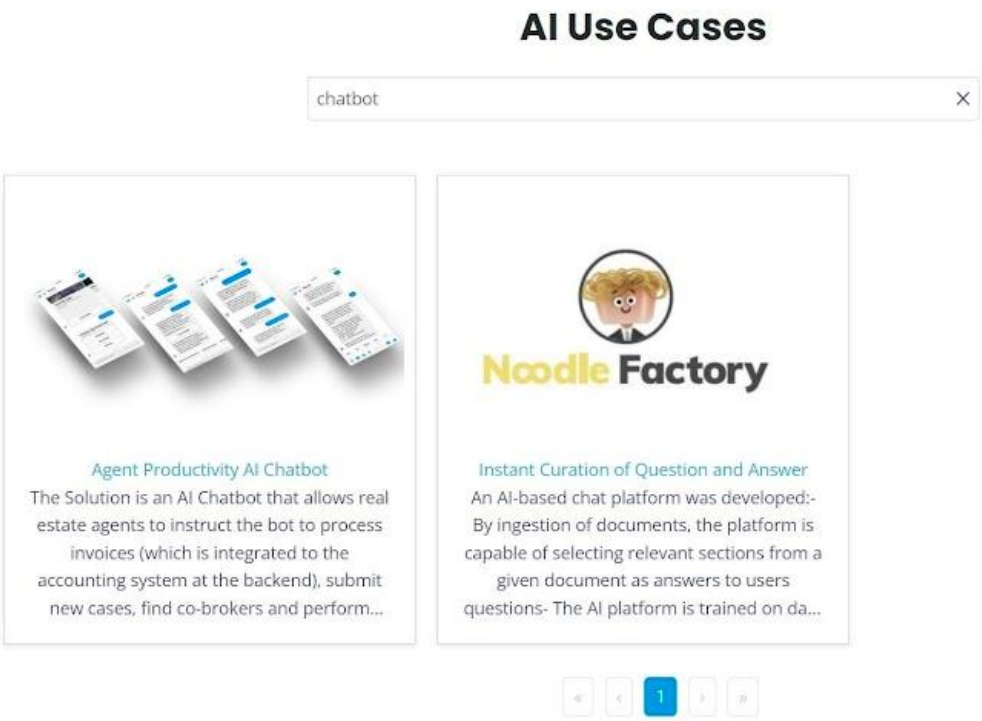

Image 5.3: Stringent setting produces 2 results from the semantic search on “chatbot”, in comparison to the balanced setting

These 2023 milestones allow the SMEs Committee to launch the portal officially in more countries and expand the impact of bridging SMEs with Solution Providers for AI solutions.

Next Steps

In 2024, it is important to grow the adoption of the AI4SME Portal by GPAI Members and use of the Portal by SMEs and AI Solution Providers in additional countries.

One of the key challenges will be the operationalization of the Portal, which includes the localization of the Portal and its materials for each Member. Note that GPAI will not be localizing the Portal for Members. Members adopting the Portal will need to localize the Portal on their own in terms of language, legal, content, and overall look-and-feel of the Portal.

Another challenge is how GPAI Members can effectively promote the use of the Portal. It will therefore be necessary to improve marketing efforts for the AI4SME portals in each country, and provide the local nuances to make the AI4SME portal a success in each country.

Conclusion

These milestones achieved in 2023 mark significant progress for the GPAI “Broad Adoption of AI by SMEs” working group in promoting AI adoption among SMEs. The AI4SME portals are now equipped

to be officially launched in more countries, expanding their impact and bridging the gap between SMEs and AI solution providers. This initiative is essential for the growth and development of SMEs and, by extension, the economies that rely on them. We look forward to further accomplishments in the coming years.