



UNLOCKING SOUTH KOREA'S AI POTENTIAL 2025

Half a million businesses in Korea adopted AI last year

Businesses across Korea are accelerating their use of artificial intelligence (AI) at an unprecedented pace. Around 499,000 businesses in Korea adopted AI last year¹—or nearly one every minute.² The number of firms that have adopted AI is **48%**, up from **40%** last year. This represents an **8** percentage point increase, showing **20%** relative growth.

These businesses that have adopted AI are seeing great benefits: Over half (**56%**) of businesses that have adopted AI report increased revenue thanks to the relevant productivity and efficiency gains, at an average **21%** increase thanks to the adoption of AI. **79%** of those who have adopted AI have already experienced productivity gains, and businesses estimate that they are saving their business 13 hours a week as a result of AI adoption.

Productivity gains are coming from a wide range of sources, especially through data analysis and reporting (**59%**), the automation of routine tasks (**49%**), and customer service improvements (**34%**). **70%** of businesses say they are using publicly available AI tools or purchasing ready-made solutions from external providers, while only **5%** indicate they are creating their own custom AI systems suited to their needs.

However, while adoption is increasingly widespread, it is often early stage or for basic use. Only a small subset of businesses (**11%**) have moved beyond foundational applications to fully integrated, transformative AI.

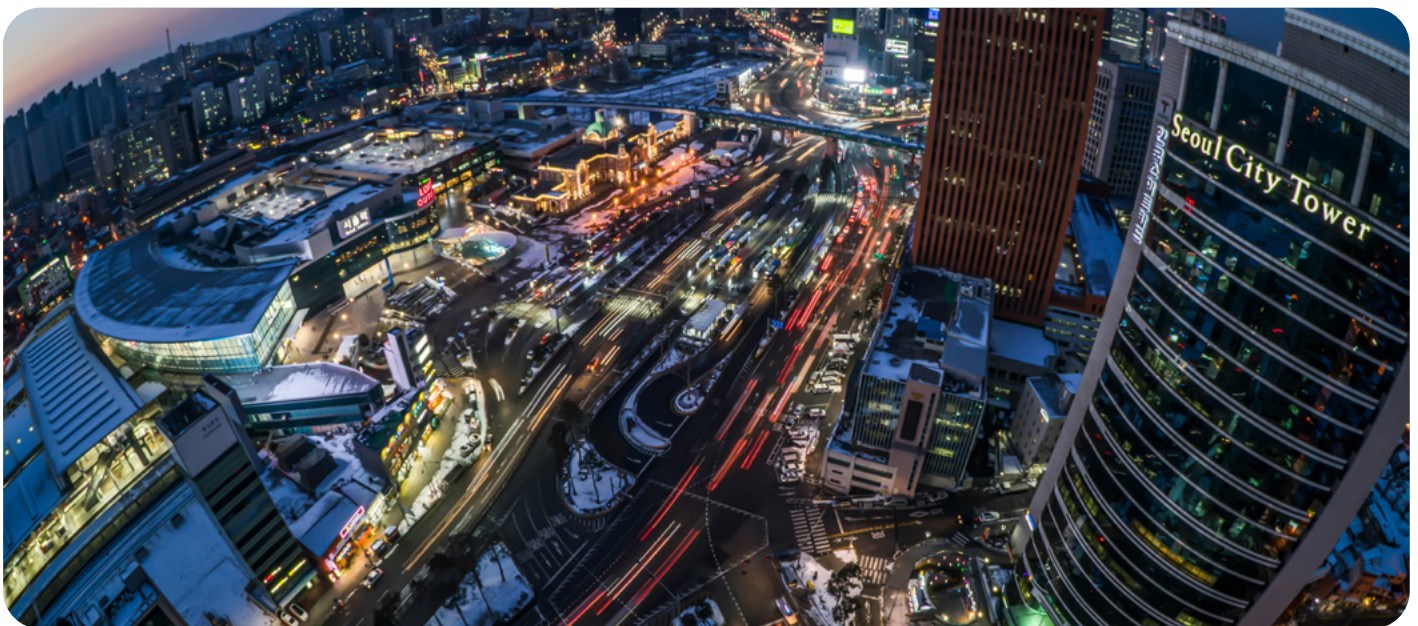
The Korean government recognises the significant opportunity AI affords. In 2019, policymakers took an early step towards and, in 2019, took an early step towards setting out a [National AI Strategy](#), which aimed to make Korea a world AI leader.³ Against the backdrop of increased AI adoption globally, the strategy seeks to ‘achieve digital competitiveness, create a huge economic effect from AI, and improve quality of life for people by 2030.’ Today, Korea stands at a critical juncture in delivering on that vision.

The research provides a comprehensive analysis of Korea’s AI adoption, highlighting both its strengths and areas for further development. The central findings show that Korea is emerging as a key hub for innovation, with the potential to achieve the aims of its National Strategy for Artificial Intelligence. Korea’s startups, in particular, are playing a pivotal role in AI integration, leading the way in both breadth and depth of adoption.

The potential economic impact of maximising AI adoption is significant. In 2023, cloud and cloud-enabled AI contributed US\$8 billion to Korea’s GDP. Research further estimates that across the Asia-Pacific region, cloud and cloud-enabled AI together could contribute up to US\$2.9 trillion by 2030, with \$203 billion coming from AI alone.⁴

However, key barriers prevent Korea from fully harnessing the power of AI, including a digital skills gap, access to funding, and a lack of legislative clarity. Overcoming these barriers will be key to driving AI-enabled growth and innovation: Just under three quarters (**74%**) of those who have adopted AI say that the technology is likely to increase their growth in the next year, and **75%** also expect cost savings thanks to AI, at an average of **36%** on AI-related activities.

To fully realise the transformative power of AI, Korea must go further, moving beyond entry-level use and building the conditions for deep, strategic integration across industries. That means: investing in a skilled workforce, delivering clear, innovation-friendly regulation, and leading through public sector adoption. Korea has the talent, infrastructure, and ambition to lead in the AI era. Now is the time to turn early progress into sustained, global leadership.



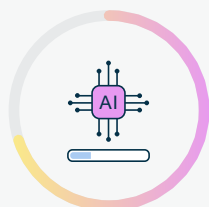
Key findings from this study:

- AI adoption has now reached **48%** across the region, a growth rate of **20%** in the past year.
- Startups are leading the way in AI adoption: **70%** of Korean startups say that they are leveraging AI in some way throughout their business.
- **32%** of Korea’s startups are leveraging AI’s most advanced and sophisticated use cases, which include combining multiple AI tools or models for complex tasks or creating their own custom AI systems.
- Those businesses that have adopted AI are seeing significant benefits as a result—**79%** have reported productivity gains and **56%** have reported an increase in revenue.
- However, **43%** of businesses say that a lack of digital skills is preventing them from increasing their adoption of AI.
- Another key barrier is regulatory uncertainty—only **51%** of Korean businesses say they understand the current debate around the proposed AI Act.

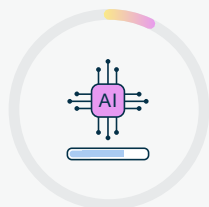
Businesses of all sizes and sectors are harnessing AI, but failing to draw on its full potential

AI adoption is widespread across different types of businesses in Korea, from startups to large enterprises. However, most businesses are not harnessing the most advanced uses of AI in order to drive innovation and competition.

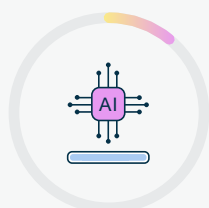
While nearly half of businesses have adopted AI in Korea, celebrating adoption figures alone risks masking an underlying trend. When looking deeper into the practicalities of how businesses are implementing AI—from initial experimentation to full transformation—it becomes clear that most Korean organisations still remain at the more basic levels of AI adoption.



70% of Korean businesses remain focused primarily on more basic uses of AI, using the technology to achieve incremental gains (e.g., driving efficiencies and streamlining processes), rather than innovation (e.g., developing new products or disrupting industries). At this more basic level of adoption, businesses are using publicly available chatbots for routine tasks such as scheduling assistants and purchasing ready-made AI solutions.



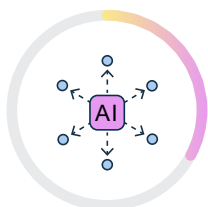
Just **7%** of Korean businesses have advanced to the intermediate stage of AI adoption. These companies are moving beyond isolated applications and integrating AI across various business functions, resulting in efficiency improvements and more innovative approaches to customer experience.



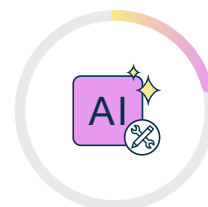
Only **11%** of Korean businesses have reached the most transformative stage of AI integration, where they are using AI for its most advanced purposes. These organisations are combining multiple AI tools or models for complex tasks and creating custom AI systems, which are transforming their operations comprehensively.

Korean startups are leading the way and innovating with AI

Startups⁵ aren't just using AI—they're building entirely new products and business models around it that would have been impossible just years ago. **70%** of startups say they are leveraging AI in some way throughout their business.



33% of startups have AI at the core of their business proposition and operations, and **32%** are leveraging AI for its most advanced uses.



Furthermore, **21%** of startups are developing new AI-driven products and services.

Over two-thirds (**69%**) of businesses believe AI will transform their industry in the next five years, making Korea's fast-moving startups key to innovation and competitiveness on the continent.

Ultimately, the success of Korea's innovation economy can be driven by empowering these fast-moving startups as contributors to domestic growth and as key players in the global race for AI leadership.



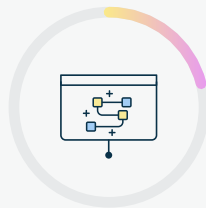
[Upstage](#), a South Korean AI startup, faced challenges in efficiently training and deploying its next-generation LLM, Solar Pro. Leveraging Amazon SageMaker, Upstage streamlined the training process, significantly reducing training time through advanced data pre-processing and pre-training techniques. AWS's infrastructure enabled Upstage to implement its proprietary Depth-Up Scaling method, optimising the model for single-GPU deployment. The results were impressive: Solar Pro, with 22B parameters, showed a 50% improvement in performance across key benchmarks while maintaining cost-effectiveness. It topped HuggingFace's Open LLM Leaderboard for models under 70B parameters and excelled in emotional intelligence tests. By launching Solar Pro on multiple AWS platforms, including Amazon Bedrock Marketplace, Amazon SageMaker JumpStart, and AWS Marketplace, Upstage made it easily accessible to businesses across various industries. Building on this success, Upstage recently released a preview of Solar Pro 2, its most capable model yet. This new iteration boasts 31B parameters and introduces a hybrid mode, letting users switch between a chat mode for quick responses and a reasoning mode for complex, multi-step problem-solving.

Large enterprises remain using AI at the surface level

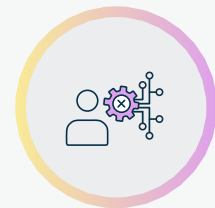
Celebrating adoption numbers alone masks a deeper challenge among larger businesses, which are less likely to be using AI to innovate. While many larger businesses have adopted AI technologies, most are currently not using tools as deeply as startups:



For **69%** of large businesses, their AI adoption remains at basic levels, where they are focused on incremental gains, such as driving efficiencies and streamlining processes.



Only **21%** have a comprehensive AI strategy, a roadmap that outlines how an organisation will leverage AI. **10%** are delivering a new AI-driven product or service by harnessing AI's deeper potential, less than half of the proportion of startups (**21%**).



Large enterprises reported that the lack of skilled personnel is the number one reason preventing them in Korea from adopting or expanding their use of AI technologies.

If not addressed, this 'two-tier' AI economy, with tech-driven startups outpacing larger, established enterprises in AI innovation, could have long-lasting implications for Korea's digital competitiveness.

Moving beyond basic AI use for businesses of all sizes is key to unlocking the full benefits of AI for Korea's economy and society. The potential economic impact is significant; in 2023, cloud and cloud-enabled AI contributed US\$8 billion to Korea's GDP.⁶ Research further estimates that across the Asia-Pacific region, cloud and cloud-enabled AI together could contribute up to US\$2.9 trillion by 2030, with \$203 billion coming from AI alone.⁷

Case study: LG Group is working to transform global healthcare outcomes



LG AI Research, the artificial intelligence research hub of South Korean conglomerate LG Group, developed a pathology foundation model, EXAONE Path, designed to analyse histopathology images for earlier and more accurate cancer diagnosis. It had challenges in processing massive medical datasets and lengthy genetic testing times. The organisation needed a robust solution for faster, more efficient cancer screening. By utilising Amazon SageMaker for model training, Amazon S3 for data storage, and Amazon FSx for Lustre for high-speed data processing, LG AI Research reduced genetic testing time from two weeks to under a minute, shortened model training time from 60 days to one week. It also cut data management costs by **35%** and reduced data preparation time by **95%**. EXAONE Path enhances cancer diagnosis accuracy and enables personalised treatment, transforming global healthcare outcomes.

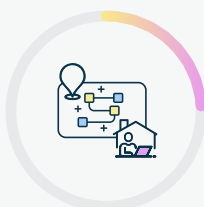
A flexible AI ecosystem supports accelerating adoption

AI adoption in Korea is increasingly widespread, and **66%** of businesses feel that they have an adequate choice to select and switch between different AI providers that suit their businesses' needs. **90%** of businesses say that having choice is important for their AI adoption.

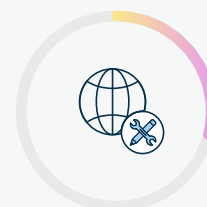
In terms of where businesses seek their AI tools:



44% of businesses in Korea look both domestically and internationally



24% leverage only local AI tools developed or hosted within their region



29% only use global AI tools developed or hosted by international providers

- For Korean businesses that only use local AI tools, **55%** of those justify this with a preference for compliance with local language models and cultural relevance, **54%** for compliance with local regulations and data privacy laws, and **35%** for security purposes.
- For those who look to global AI providers, **58%** commend their wider range of features, **56%** for their better scalability and integration, **55%** for brand trust and reputation, **54%** for competitive pricing options.

This growing flexibility in AI infrastructure, both in terms of provider choice and the ability to balance local compliance with global innovation, positions Korea well to accelerate AI adoption. By continuing to strengthen this foundation, Korea can support more widespread and sophisticated use of AI across sectors, while ensuring trust, security, and scalability remain central to its digital progress.



Businesses are clear about what it will take to go further and faster with AI

Three key challenges are holding Korean businesses of all sizes and sectors back from adopting AI, and once adopted, from innovating successfully:

The digital skills gap:

- Businesses across Korea are saying, “We have the technology, we have the vision, but we can’t find the people with the advanced AI and digital knowledge to make it happen.” A lack of skills was the highest reported barrier, with **43%** of businesses saying it prevents them from adopting or expanding their AI use. AI literacy is expected to be in **39%** of businesses going into the future, and only **30%** of businesses feel prepared with their current skillset.
- Citizens say that they currently lack the most confidence in their ability to manage their digital identity and online reputation, their understanding of basic concepts of programming or coding, and their ability to use online learning resources for professional development. Citizens currently say that the most important skills for their job are finding and evaluating online information, managing and storing digital files and data, and protecting devices and personal data online. These skills are crucial for the successful implementation and integration of AI.
- Approximately **34%** of employees have participated in digital training or upskilling in the past year.

Access to funding and support:

- **67%** of businesses cite government support, including tax incentives or grants as important to encourage their decision to adopt AI. Meanwhile, startups say access to venture capital (**45%**) is critical.
- Beyond funding, **40%** also say that support in understanding how AI can improve their business would enable their AI adoption. **21%** also highlight clearer regulatory guidelines as a key enabler.

An uncertain regulatory landscape:

- Businesses report that navigating AI regulations is challenging due to evolving requirements and a lack of clear guidance. Only **51%** of Korean businesses say they understand the debate around the Korean [AI Basic Act](#), and its forthcoming subordinate regulations. Furthermore, just over a quarter (**29%**) of businesses feel they have a clear comprehension of their potential roles and responsibilities under the AI Basic Act.
- However, for those who have heard of the proposed legislation, **48%** expect it to provide clearer guidance for AI deployment and usage, and **39%** say it would encourage responsible AI development, emphasising the need for clear, pro-growth, and pro-innovation regulation. Due to regulatory uncertainty around new technologies, including AI, **50%** of startups say their business decisions, including AI adoption, have been negatively affected.
- Finally, Businesses estimate that they spend **23%** of their tech spend on compliance-related costs. More clarity around regulations is critical. **50%** expect this figure to increase in the next 3 years, and **34%** currently expect the proposed regulation to increase their compliance costs.

AWS is helping to drive AI adoption for businesses of all sizes

Through its investments, initiatives, and cloud infrastructure, AWS is supporting businesses of all sizes to harness cloud and AI tools.

AWS's Investment in Korea:

[AWS has invested](#) 2.73 trillion won from 2018–2022, and plans to invest an additional 7.85 trillion won from 2023–2027 into cloud infrastructure in South Korea to meet growing customer demand for cloud services in the country.

The investment is expected to contribute approximately 15.06 trillion won to Korea's GDP and support an average of 12,300 full-time jobs annually.

This investment has generated and will continue to propel revenue across industries in South Korea, encompassing construction, engineering, energy consulting, maintenance, and security.

AWS Korea Generative AI Programme:

In October 2023, AWS launched the AWS Korea Generative AI Programme that supports domestic foundation model (FM) providers that have built their own proprietary FMs across all industries in Korea. This programme provides selected companies with a total of KRW 6.89 billion (US\$5 million) in AWS credits to leverage tools, resources, and expertise to build and scale their FMs on AWS.

AWS is supporting startups:

In August 2023, AWS, KB Investment, and SAEHAN Ventures announced a joint accelerator programme to provide startups with training, mentorship, and up to KRW 270 million (US\$200,000) in AWS credits per startup over a six-week programme.

Furthermore, AWS Korea launched the [AWS Jungle Programme](#) with the Ministry of SMEs and Startups (MSS) and the Korea Institute of Startup and Entrepreneurship Development (KISED) in 2020, to support Korean startups. It provides selected startups with grants up to 300 million KRW, AWS cloud credits, technical training, mentoring, and networking opportunities to help them scale and grow into potential unicorns. In 2023, a second programme was launched to support startups in healthcare, life sciences, and environmental, social and governance (ESG). Since 2020, the AWS Jungle Programme has helped various startups scale their businesses including Neuro Circuit, Delvine, and Logblack.

Case study: TwelveLabs' AI models understand video like humans do



[TwelveLabs](#) is a full-stack foundation model developer specialising in multimodal video AI, enabling a human-like understanding of video content. The first Korean company to integrate their models into Amazon Bedrock, it is serving customers in industries across advertising & commerce, physical security, media & entertainment, and sports with their state-of-the-art video understanding models Marengo 2.7 and Pegasus 1.2. The models provide unprecedented access to insights from massive video archives, enabling semantic video search across thousands of hours of videos and extracting deep insights from each video content. The company faced challenges in processing multiple data formats and requiring extensive compute power for long-duration model training. By leveraging Amazon SageMaker HyperPod for parallel computing capabilities and uninterrupted model training, alongside AWS Marketplace for global service delivery and AWS Activate for scaling support, TwelveLabs has achieved remarkable results. The implementation has led to **10%** faster training of multimodal foundation models, over **15%** reduction in training costs, and the ability to process hundreds of petabytes of videos with split-second accuracy.



Accelerating AI adoption: Three key steps

To unlock the full potential of AI, AWS is urging the Korean Government and policymakers to take the following steps:

1. Create a clear and innovation-friendly regulatory environment

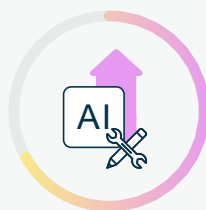
Only **51%** of businesses in Korea are familiar with the AI Basic Act and its forthcoming subordinate regulations, and just **28%** say they fully understand them. Despite this, many businesses are hopeful that the new regulatory framework will provide much-needed clarity for AI deployment. Korean companies currently benefit from relatively low compliance burdens—spending only **23%** of their tech budgets on compliance compared to **40%** in Europe. With the risk of rising compliance costs cited as the top concern, it is critical that Korea's AI regulations remain predictable, proportionate, and innovation-friendly to sustain its position as a global leader in AI-driven growth.

To further accelerate innovation, the government should expand access to high-performance computing resources such as GPUs, support domestic R&D and AI model fine-tuning, and establish regulatory sandboxes for highly regulated sectors such as healthcare and defense.

2. Accelerate digital adoption by investing in skills and removing barriers



Nearly seven-in-ten (**67%**) of businesses report that streamlined access to government funding is critical to digital innovation, yet many face barriers in accessing such support.



Additionally, while **67%** of businesses recognize AI-related skills as essential to their success



only **30%** feel adequately prepared.

The government should expand targeted, industry-specific digital skills programmes, invest in AI talent development, and scale R&D funding. Addressing regulatory and administrative barriers to funding access will be especially important for fostering startup innovation.

Since 2017, AWS has trained over 300,000 individuals in Korea with cloud skills, through programmes such as [AWS Skill Builder](#), [AWS Educate](#), and [AWS re/Start](#).

AWS re/Start collaborates with AWS Partner MegazoneCloud, connecting programme graduates in Korea with job interview opportunities in organizations including Shinhan DS and Channel Corporation.

3. Modernise public sector technology through digital transformation

The public sector can act as a catalyst for AI adoption. Nearly half (**49%**) of businesses say they are more likely to adopt AI when the government leads by example—especially in high-impact areas such as healthcare and education. The government should actively leverage public procurement to scale innovative solutions, establish AI testbeds, and initiate cross-border pilot projects. Importantly, **50%** of startups indicate that a more innovation-friendly public sector is vital to their ability to scale effectively.

Conclusion

Korea stands at a pivotal moment in its journey toward AI-powered transformation. The country's widespread AI adoption, especially among startups, signals strong momentum, but this progress remains uneven and largely concentrated in basic use cases. To fully realise the vast economic and societal benefits AI promises, Korea must transition from early-stage adoption to deep, strategic integration across industries.

This requires overcoming barriers through a targeted approach: closing the digital skills gap, expanding access to funding and technical infrastructure, and creating a clear, innovation-friendly regulatory environment. With continued investment from the public and private sectors, such as AWS's expansive support for startups and enterprises, Korea has the tools, talent, and ambition to lead globally in the AI era. The path forward is clear.



Appendix

Methodology

The fieldwork for this study was undertaken by Strand Partners' research team for Amazon Web Services. This research has followed the guidance set forth by the UK Market Research Society and ESOMAR. For the purposes of this study, business leaders are defined as founders, CEOs, or members of the C-suite in organisations.

'Citizens' are nationally representative members of the public based on the latest available census.

For inquiries regarding our methodology, please direct your questions to: polling@strandpartners.com.

In South Korea:

- We conducted a survey targeting 1,000 businesses and 1,000 nationally representative members of the public.
- The survey of citizens has ensured representation based on age and gender.
- The survey of businesses has ensured representation by business size and sector.

Sampling:

Our sampling process used a mix of online panels that are recognised for their validity and reliability. These panels are carefully curated to ensure diverse representation across various demographics. For the business leaders, the panels are selected with a consideration for organisational size, sector, and position within the company. Our objective with the sampling strategy is to achieve an optimal mix that mirrors the actual distribution of our target populations in the respective markets.

Weighting Techniques:

Post-data collection, we applied iterative proportional weight to correct any discrepancies or over-representations in the sample.

Survey:

This study was designed with the objective of delving deep into the digital landscape:

- **Usage Patterns:** This survey gauges the evolving patterns of digital technology usage. We are particularly interested in examining the adoption and implementation levels of technologies, focusing on cloud computing and artificial intelligence.
- **Perceptions and Attitudes:** The survey seeks to unearth the prevailing perceptions and attitudes toward digital technologies, understanding the perceived benefits, challenges, and potential ramifications of both present and emerging tech solutions.
- **Barriers and Opportunities:** The survey scrutinises the predicted challenges and potential avenues that both businesses and individuals anticipate on their digital trajectory. This involves pinpointing challenges, from skill deficits to regulatory complications, and recognising opportunities for growth, innovation, and market development.
- **'Size of the Prize':** The survey shed light on the economic repercussions and growth prospects linked with digital transformation. By elucidating the 'size of the prize', we aspire to stress the importance of digital transformation and foster further investments and technology adoption.

References

1. "Adopted AI" or "consistently use AI": a business that consistently uses at least one AI tool. This would not include businesses that experimented with AI once or twice, or ran a temporary pilot programme, for instance.
2. There are approx. 6.24 million businesses in South Korea (<https://www.statista.com/statistics/1125155/south-korea-number-of-businesses/>). 8% (nearly 499,000) adopted AI in the past year.
3. Ministry of Science and ICT, 2019, 'National Strategy for Artificial Intelligence', Available at: <https://www.msit.go.kr/bbs/view.do?sCode=eng&nttSeqNo=9&bbsSeqNo=46&mId=10>
4. Research by AWS and [Telecom Advisory Services](#) found that cloud-enabled AI accounted for \$28 billion to GDP in Korea in 2023. By 2030, AI adoption is expected to add nearly \$203 billion in GDP to the Asia Pacific region. Source: <https://www.teleadvs.com/economic-impact-of-cloud-computing-and-artificial-intelligence-in-asia-pacific/>
5. A startup is a business founded in the last 2 years which provides a new product/service or innovation and is aiming for rapid growth in terms of employees and turnover.
6. Research by AWS and [Telecom Advisory Services](#) found that cloud-enabled AI accounted for \$28 billion to GDP in Korea in 2023. By 2030, AI adoption is expected to add nearly \$203 billion in GDP to the Asia Pacific region. Source: <https://www.teleadvs.com/economic-impact-of-cloud-computing-and-artificial-intelligence-in-asia-pacific/>
7. Ibid.