UNLOCKING ITALY'S AI POTENTIAL 2025

One Italian business has adopted AI every 75 seconds in the last year

The story of AI adoption in Italy is one of both progress and potential. AI adoption is expanding across the country, with businesses of all sizes beginning to adopt AI to streamline operations, boost efficiency, and unlock new opportunities for innovation.

On average, one business adopted AI every 75 seconds throughout the past year–or around 420,000 businesses that adopted AI in the last year alone. In total, over 2 million businesses in Italy are now using AI. AI adoption is accelerating with a strong growth rate of **30%** from last year, higher than the European average of **27%**. This rapid growth in AI adoption outpaces the mobile phone revolution in Europe in the 2000s.[1] Now, nearly a third (**30%**) of businesses in Italy are consistently using the technology, a significant milestone, even if lagging behind the European average of **42%**.

Italian businesses are optimistic about this momentum; **61%** of businesses believe AI will transform their industry in the next five years.

For businesses that have adopted AI, a striking majority (**93%**) report increased revenue (on average by **27%**). Nearly two-thirds (**64%**) have seen significant productivity gains, including from customer service improvement (**41%**), enhanced automation of routine tasks (**31%**) and stimulated innovation (**31%**).

The Italian government is taking proactive steps to support this shift, recognising AI as a key driver of economic development through initiatives like the Strategy for Artificial Intelligence (2024-2026),which outlines a robust plan to harness AI technologies to drive innovation and productivity. This has set the tone for businesses to continue adopting the technology with confidence. The AI strategy aims to boost the technological innovation of Italy's businesses through promoting the integration of AI technologies deeply into Italy's socio-economic fabric.

To further this, in a landmark achievement during its 2024 G7 Presidency, the Italian government led G7 nations in an unprecedented acknowledgement of cloud computing as a crucial enabler for AI adoption among MSMEs (Micro, Small, and Medium Enterprises) and for the deployment of citizen services. This marks a significant breakthrough and highlights Italy's clear intent to lead in AI adoption and innovation on the global stage.

Italy's digital landscape is already undergoing profound and positive shifts. A game-changing AI revolution that began in 2023 is rapidly gathering pace. However, for Italy to fully capitalise on this technological revolution, businesses must transition from early experimentation to deeper, more strategic AI integration. Failure to do so risks leaving critical opportunities for economic growth and competitiveness on the table. This will require overcoming various barriers, including the perceived high upfront cost of adoption, regulatory uncertainty across European borders, a digital skills gap that only risks growing, and compliance costs. Crucially, Italian businesses spend nearly a third (**30%**) of their tech spend on compliance–which **70%** expect to increase over the next three years.

This report argues that proactively embracing AI represents Italy's most powerful lever to meet and exceed the EU's Digital Decade targets, accelerate innovation, boost competitiveness, and improve its standing on the global stage.

Key findings from this study:

- On average, every 75 seconds in the last year, one business in Italy adopted AI, showcasing the rapid pace of adoption and the immense potential for further growth.

- **30%** of businesses in Italy now consistently use AI, up from **23%** last year. This is a year-on-year growth rate of **30%**, outpacing the mobile phone revolution in the 2000s.

- Businesses also report a **15%** increase in investment in AI over the last year – slightly trailing the European average of **22%**. In three years' time, businesses predict that AI will comprise **15%** of their overall IT budgets.

- The benefits are clear. **64%** of adopters have seen transformative or significant productivity improvements. Notably, **41%** of AI adopters in Italy have seen AI improve customer experience, **31%** see enhanced automation, and **31%** see stimulated innovation.

- **71%** of Italian businesses currently have a dedicated AI budget – ahead of the European average of **64%**.

- **93%** of Italian businesses report an increase in revenue thanks to AI adoption, at an average increase of **27%** - attesting to the true power of AI in businesses' competitiveness.

- However, Italian businesses continue to face barriers to AI adoption and integration. Currently, Italian businesses report they allocate **30%** of their tech spend on compliance, posing a barrier to AI innovation.

## Accelerating AI adoption across Italy: Speed without depth

While nearly a third of businesses have adopted AI in Italy, celebrating adoption figures alone risks masking an underlying trend: looking deeper into how businesses are implementing AI — from initial experimentation to full transformation — we see most Italian organisations are still using AI for more basic uses, rather than harnessing its power for the most transformative purposes.
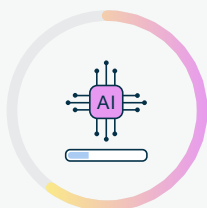
60% of Italian businesses remain focused primarily on more basic uses of AI, focusing on incremental gains. These businesses are typically using publicly available chatbots for routine tasks such as scheduling assistants and purchasing ready-made AI solutions, and other, more basic AI use cases.
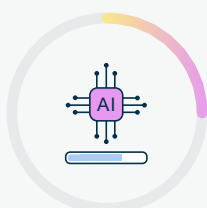
A quarter **(25%)** have advanced to the intermediate stage of AI adoption; these companies are moving beyond isolated applications and integrating AI across various business functions, enabling them to automate workflows and reimagine the customer experience.
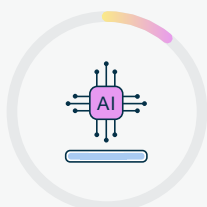
Only **11%** of Italian businesses have reached the most transformative stage of AI adoption, where they are using AI for its most advanced purposes. These organisations are often combining multiple AI tools or models for complex tasks, and creating custom AI systems, which are transforming their operations comprehensively, from optimised supply chains to launching entirely new AI-driven products or services to creating new business models.

Recent research by the Telecoms Advisory Service, on behalf of AWS, found that cloud-enabled AI added over $363 million to Italy's GDP in 2023. The research also found that cloud as a whole is set to add $2.6 trillion to Europe's GDP by 2030, with nearly $434 billion alone coming from cloud-enabled AI. To realise this opportunity, AI adoption in Italy must go beyond quick wins like task automation and cost savings, and instead support businesses to innovate and scale with AI, disrupting their industries through new AI-based products and services, and by embedding AI deeply into their operations to transform their business processes. Helping all businesses take up and benefit from AI and move toward deeper, strategic use of the technology will drive long-term growth, unlock innovation, and ensure Italy remains competitive in an increasingly digital global economy.

Pirelli is a standout example of an Italian business that is integrating innovative AI solutions to transform their operations. Pirelli, an iconic automotive brand specialising in tire production and the exclusive supplier for Formula 1, is leveraging AWS's generative AI capabilities to enhance workplace safety across its global operations. With 18 production sites across 12 countries and over 30,000 employees worldwide, ensuring safety at scale presents significant challenges that Pirelli is addressing through innovative AI solutions.

In collaboration with AWS, Pirelli's Data Science and Analytics team adopted a phased approach to generative AI implementation. From initial keyword searches to advanced named entity recognition using Amazon Comprehend and AWS SageMaker Ground Truth, the team built custom models to identify and tag safety-related entities. The team clustered and summarised dense reports to provide actionable insights, and implemented Retrieval Augmented Generation (RAG) using Amazon Bedrock and OpenSearch for natural language querying of safety data.

The solution is now in production, enabling efficient, proactive risk management based on leading indicators like unsafe behaviours or near misses. With built-in guardrails for ethical deployment, the system is helping reduce their Frequency Index and serves as a blueprint for scaling AI across the organisation.

Listen to the Pirelli team speak about their work with AWS and AI here.

## A segment of startups are leading the way, yet barriers remain

Amongst Italy's relatively small but dynamic startup ecosystem, which is not yet considered to have achieved its full potential, a handful of startups are emerging as leaders in their use of AI. This segment of startups is building entirely new products and business models around AI that would have been impossible just years ago. Overall, **61%** of startups say they are leveraging AI throughout their business. Many of them are using AI at an advanced level:
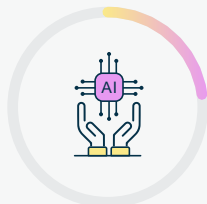
23% of startups are harnessing AI for its most advanced purposes (compared to **26%** across Europe).
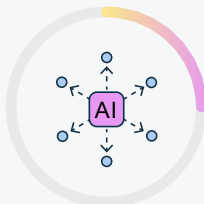
25% have AI at the core of their business proposition (compared to **38%** across Europe).
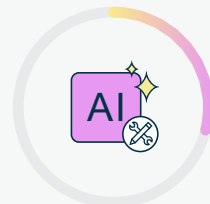
29% have launched a new AI-driven product or service with AI.

This momentum aligns with Italy's position in VC funding, with Italian startups raising $900 million in 2024 (while EU tech companies raised $43 billion overall).[2] AI offers a clear path to increase startup competitiveness and boost investor returns. Italy now counts a small pool of seven unicorns, which are primarily tech-driven. With deeper AI adoption, more startups could follow this trajectory lead the way in.

However, the startup ecosystem is facing constraints, which are stifling the potential of startups and limiting Italy's ability to scale tech success stories. Supporting startups will be essential to unlocking the next wave of AI-driven innovation. With the right support, Italy's growth and innovation future can be fuelled by a thriving startup ecosystem.

Among these barriers to startups are compliance burdens and the digital skills gap. Startups are experiencing higher compliance costs than Italian businesses more broadly. When, overall, all Italian businesses report that €30 out of every €100 they spend on tech goes towards compliance-related costs, this figure rises to €41 out of every €100 among startups. In addition, **49%** of startups identify the skills gap as a major barrier to their ability to adopt and scale AI, higher than the average across .

By reducing these barriers to foster an environment where startups can scale with AI, Italy can unlock the next wave of tech success stories — and turn today's potential into many more unicorns tomorrow.

Case study: Latitudo40: Making earth observation data actionable with AI on AWS

Latitudo40 is on a mission to transform how we care for and understand our planet by making satellite data accessible to everyone — not just data scientists or geospatial experts. With over 20 years of aerospace experience, the team saw the challenge: Earth Observation data holds incredible potential for tackling climate change and building more resilient cities, but its complexity limits who can use it.

By leveraging the AI capabilities and scalable infrastructure of AWS, Latitudo40 processes vast volumes of satellite data in hours instead of months. Their platform helps governments, investors, and industries turn raw satellite imagery into actionable insights that support climate resilience and sustainable urban planning.

With AI on AWS, Latitudo40 is shaping a future where data-driven insights can guide us towards a more sustainable planet for generations to come. Read more about their work here.

Building the momentum: Barriers to deeper adoption

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

Compliance:
Italian businesses estimate that €30 out of every €100 they spend on tech goes towards compliance-related costs. (This is lower than the average across Europe of €40 per every €100 spent on tech).

- Crucially, **70%** of businesses expect these compliance costs to increase further in the next 3 years.

Skills:
Skills remain one of the key barriers to AI adoption and expansion in Italy. **46%** of Italian businesses identify skills as a barrier to deeper AI adoption, and **55%** say that a lack of skills is hindering innovation. **53%** indicate the skills gap is causing delays in their projects. A further **20%** say they struggle to attract talent with the necessary digital skills. With AI literacy expected to be required in **48%** of new jobs within three years, bridging this gap is critical for Italy's economic future

Perceived costs:
25% of Italian businesses cite perceived upfront costs as a key barrier to AI adoption. Interestingly, **24%** of businesses say they need a clearer understanding of AI's return on investment, yet **93%** of Italian businesses that have adopted AI have seen a significant increase in revenue, with an average **27%** revenue growth attributed to AI.

Regulatory uncertainty:
70% of Italian businesses do not understand their roles and responsibilities under the EU AI Act. **25%** of Italian startups say that regulatory uncertainty has delayed or altered their AI and technology strategies. Given the upcoming national implementation of the EU AI Act that extends the reach of the original text, the burden and uncertainties may increase for companies, hampering their ability to compete internationally.

Case study: xFarm is using AI to protect crops and empower farmers

Farming today is more challenging than ever, with extreme weather, rising input costs, and razor-thin margins. Matteo Vanotti, a farmer himself, created xFarm Technologies to help others make better decisions. The platform now supports over 500,000 farms in more than 100 countries, across seven million hectares.

Built on AWS, xFarm rapidly scales and processes vast amounts of agricultural data, from satellite imagery to crop health monitoring, while meeting strict European data standards. Farmers use the app to manage everything from irrigation to pest control, with AI helping identify diseases, predict outbreaks, and even track insects using photos and predictive models.

Designed to be farmer-led, the modular platform adapts to the specific needs of different growers—from grape farmers in Italy to corn producers in Germany. Looking ahead, xFarm plans to expand into regions like Brazil and India to help build a more climate-resilient agricultural system. Read more about xFarm's work here.

Accelerating AI adoption through four key steps

In order to ensure broadscale AI adoption across all businesses, Italy should capitalise on the momentum around AI to drive its economy and competitiveness further. Initiatives such as the Strategy for Artificial Intelligence (2024-2026), which outlines a robust plan to harness AI technologies to drive innovation and productivity, are great steps forward. The recent Memorandum of Understanding (MOU) with the United States, which promotes cooperation on AI research and responsible development, further reflects Italy's commitment to global AI collaboration and leadership. AWS recommends that Italian policymakers and industry leaders take the following steps to unlock the full potential of AI:

Stage 1: Continue to foster public-private collaboration to drive AI adoption

AI's most transformative applications are emerging through deep partnerships between government, academia, and industry. Building on the Strategy for Artificial Intelligence (2024–2026) and the MOU with the US, Italy should expand its public-private collaborations, including:

Scaling joint AI research initiatives and innovation sandboxes between public institutions and cloud providers to pilot advanced AI use cases.

Expanding AI R&D tax incentives and cloud-first procurement models to encourage experimentation and innovation across sectors.
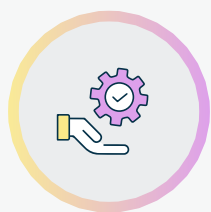
Strengthening support for cloud infrastructure and providers as a critical enabler of AI and digital transformation. Nearly 7 in 10 **(67%)** Italian businesses have already adopted cloud technologies, and **39%** cite access to cloud computing and advanced AI infrastructure as one of the most important factors enabling AI adoption. As AI models become more sophisticated and resource-intensive, continued access to scalable, secure, and high-performance cloud infrastructure will be key to unlocking their full potential.

Stage 2: Create a pro-growth regulatory environment that incentivises adoption and innovation

By addressing Italian businesses' concerns about the compliance cost (**30%** of IT spending) and complexity associated with new regulations, Italy can overcome a key barrier to digital transformation. With **70%** of businesses currently anticipating this figure to rise, harmonised and streamlined regulation will be key.

Earlier this year, the Italian Senate approved the AI Bill, which delegates the government to adopt, within 12 months, supplementary regulation to the EU AI Act. While the Italian government has clarified that the bill is not intended to overlap with the AI Act but rather to accompany its regulatory framework, this supplementary framework must avoid duplication and instead provide clarity, predictability, and guidance without adding to the burden of uncertainty.
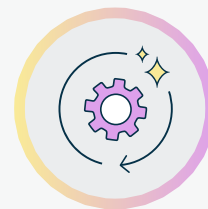
Clearer regulatory frameworks, focusing on unified frameworks and streamlined regulation, can support faster AI adoption and create a pro-growth regulatory environment, while ensuring concerns are mitigated.

Stage 3: Accelerate digital transformation across industries through skills development

To accelerate private-sector digital adoption, Italy should foster a cycle of investment and growth centred on digital transformation and developing a highly skilled workforce, as **76%** of businesses see AI skills as critical in the next five years.
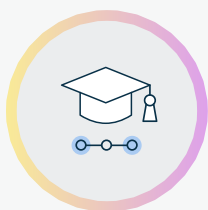
Embedding AI and digital skills into all levels of education, from primary to university, with a focus on core digital literacy, data interpretation, and responsible AI use will work to close the digital skills gap for Italy's workforce.

Businesses are readily taking their own action: Companies are upskilling their workforce – **41%** have already implemented AI-specific training programs. Companies are offering financial incentives to attract top talent – businesses say they are willing to offer, on average, a **32%** salary premium for candidates with strong digital skills.

The availability of training is making AI more accessible – **51%** of businesses believe that widespread AI training initiatives are helping drive adoption.

AWS is supporting a digitally-skilled Italian workforce: AWS and Amazon are committed to training 200,000 students in Italy in STEM education by 2026, and launched 'Amazon Future Engineer'.

Stage 4: Drive support for startups to foster a vibrant startup ecosystem

Italian startups are among the most dynamic AI adopters—yet face the steepest barriers, from compliance costs to limited access to digital talent. To help them scale:
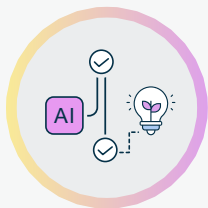
Establish faster, simpler pathways for AI startups to test and launch their innovations.
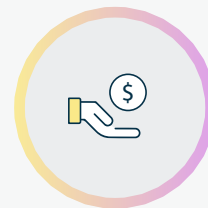
Provide targeted funding or grants for AI-based startups, especially those solving real business or societal problems.

AWS is committed to supporting Italy's businesses by providing the cloud infrastructure, tools, and expertise needed to drive innovation. AWS has announced the availability of Amazon Bedrock and Amazon Nova in the AWS Milan Region to support digital transformation of industries, and in 2024, announced plans to invest more than €1.2 billion over the next five years to expand its cloud infrastructure and services in the country's AWS Europe (Milan) Region. This investment is expected to contribute €880 million to Italy's GDP and support an estimated 5,500 jobs through 2029. These jobs will span various sectors, including construction, facility maintenance, engineering, telecommunications, and the broader local economy.

Italian businesses that have embraced AI are already seeing significant benefits, from increased productivity to revenue growth. With adoption accelerating, AI is poised to be a key driver of Italy's digital transformation and economic competitiveness. However, to fully capitalise on this momentum, businesses must move beyond experimentation and integrate AI strategically. Acting on these recommendations, Italy can accelerate innovation, attract more investment, and grow a new generation of unicorns.

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 Italy:

- We surveyed 1,000 members of the Italian public, ensuring representation based on age, gender, and NUTS 1 region.

- Additionally, we surveyed 1,000 businesses, representative by their business size, sector, and NUTS 1 region.

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. The highest annual increase in global mobile phone adoption occurred between 2007 and 2008. In this period the number of mobile subscribers increased at a growth rate of **18%**. Source: https://stats.areppim.com/stats/stats_mobilexpenetr.htm
2. StartupItalia, November 2024, 'How much have European tech companies raised in 10 years? And how much will Italian ones close in 2024?'. Available at: https://startupitalia.eu/startup/tech-company-europee-quanto-raccolgono/