

# ITALY

## COUNTRY REPORT

### Unlocking Italy's AI Ambitions in the Digital Decade

**Artificial Intelligence promises a major boost to the economy.**

The European Commission's Digital Decade policy programme set bold targets, aiming to make Europe a digital leader by 2030. The goals of the Digital Decade are for 75% of businesses to be using cloud computing, big data, and artificial intelligence (AI) by 2030.

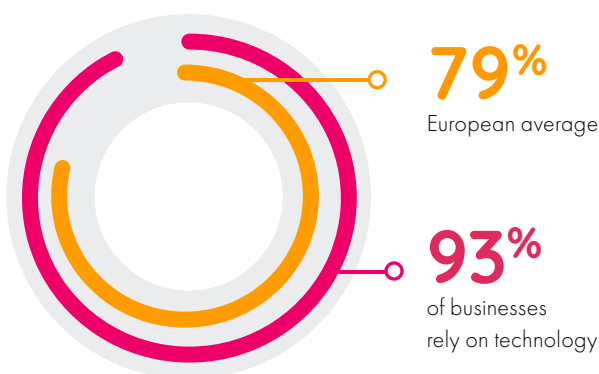
This study finds that Italian businesses and citizens recognise the power of this digital transition, believing that AI and other digital technologies have the potential to transform lives and businesses.

This research, the first of its kind since the boom in the adoption of generative AI and large language models (LLMs) in 2023, uncovers significant acceleration in businesses' uptake of AI in 2023. This study, which builds on a 2022 report carried out by Public First and commissioned by AWS, surveys 1,000 businesses and 1,000 citizens in Italy and notes that the country's digital capabilities need to improve to realise the full benefits of the digital future.

#### Key Statistics

- 2023 was the 'year of AI' in Italy and across Europe, with the number of businesses adopting AI up **28% from 2022** in Italy and up 32% in Europe more widely.
- If Italy is able to maintain this level of digital adoption until 2030, it could add **€329 billion** to the Italian economy, an additional €78 billion from last year's prediction.
- The benefits of AI are already being felt: for those Italian businesses that have already integrated AI technologies, **88%** have increased their efficiency, **75%** have streamlined innovation, and **75%** have improved customer experience.
- There is strong belief in the transformative potential of AI: **79%** of Italian businesses believe that AI will transform their industry within the next five years.
- However, skills are not keeping pace with ambitions - **54%** of Italian businesses report that the digital skills most lacking in their organisation are basic digital skills and only **20%** of Italian businesses find it easy to find new hires with the necessary digital skills.

### The Growing Potential of Digital Technologies



Italian businesses are enthusiastically embracing digital technology at an even faster rate than other European countries. Significantly, **93% of businesses** express a heavy daily reliance on digital technology, indicating that they could not function effectively without it comfortably surpassing the **79% average of European businesses**.

They are supporting this reliance with heavy spending on digital: Italian businesses have increased investments in digital technology by **49% since September 2022**, and plan to further increase investments by **51% in the next 12 months**. Italian businesses thus recognise the powerful potential of digital; **83% of Italian businesses** describe digital technologies as important in enabling them to achieve their five-year growth targets.

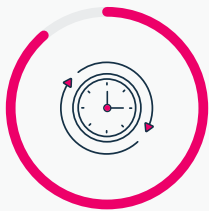
## 2023: a 'year of AI' driving an acceleration in economic growth

Italian businesses saw a large increase in the rate of adoption of AI technologies in 2023, with **23%** of businesses having adopted the technology in September 2023, up from 18% in 2022. This represents a growth rate of **28%**. Furthermore, **51%** of AI adopters are using LLMs or generative AI. If this increase in digital adoption continues, Italian businesses will be on track to reach the Digital Decade target of 75% of businesses using AI by 2030.

**If this rate of growth is maintained, €329 billion could be added to the Italian economy, an additional €78 billion from last year's prediction of €251 billion.**

Although Italian businesses are enthusiastic about utilising AI tools and adoption is growing, it lags slightly behind European peers. AI adoption in Europe reached 33% in September 2023, a 32% growth rate from 2022.

Nonetheless, a significant majority (**67%**) of Italian businesses believe AI will substantially transform their industry in the next five years - above the European average (**63%**). Moreover, Italian businesses which have adopted AI tools are already seeing the benefits to their operations. These benefits include:



**88%**  
Enhanced  
efficiency



**75%**  
streamlined  
business practices



**75%**  
stimulated business  
innovation

Furthermore, AI is helping Italian businesses realise growth, with 63% reporting that the use of the technology has increased their revenues. The adoption of AI in Italy is likely to increase further, as more businesses become aware of the power of the technology.

In December 2023, the EU reached a provisional agreement on the AI Act, forming a broad legal framework for regulating the use of artificial intelligence. AWS supports government efforts to put in place effective risk-based legislation for AI that protects citizens and their rights, whilst also encouraging trust and allowing for continued innovation and practical application.

We encourage policymakers to continue pursuing an innovation-friendly and internationally coordinated approach and are committed to collaborating with the EU and industry to support the safe, secure, and responsible development of AI technology.

## Cloud computing: a foundational technology



Cloud computing underpins Europe's journey to becoming a digital leader and forms the foundation for the adoption of digital and AI technology. In particular, cloud underpins the Foundation Models which form the basis of generative AI.

Italian businesses are broadly aware of cloud computing as a concept but lack a deep understanding of the technology. **83%** of businesses were familiar with cloud computing – comparable to the European average (85%).

However, there is a clear opportunity to raise awareness of the benefits of cloud technology as familiarity with the cloud is weaker in Italy than elsewhere in Europe, with only **29%** of businesses in Italy having a strong understanding of what it does, compared to 39% across Europe.

**Nonetheless, businesses that employ cloud computing in Italy have noted several benefits. The primary benefit, reported by 42% of respondents, was that cloud computing improved ways of working with suppliers, largely through the sharing of data.**

## Overcoming Barriers and Skills Training

Various barriers are preventing Italian businesses from fully accessing the benefits of digital technologies.



Notably, strict standards for data exchange between AI providers is a significant hurdle to AI adoption in Italy (**63%**).

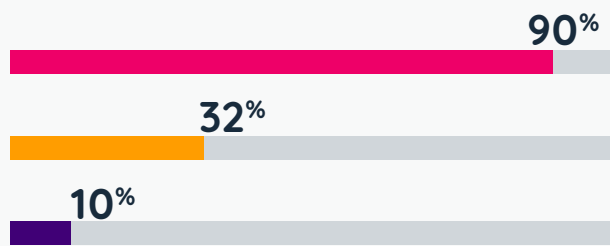


This problem is relatively unique to Italy, impacting only **a small minority (23%)** of businesses elsewhere across Europe

Other obstacles facing Italian businesses include a lack of choice between AI providers, difficulties switching between them, and concerns about AI system costs – **each barrier cited by 38% of Italian businesses.**

As demonstrated across Europe, the digital skills gap prevents Italian businesses from fully accessing the benefits of a digital future. Finding staff with good digital skills remains a challenge in Italy, with only a small minority (**19%**) finding this to be a straightforward task.

Similarly, less than a third (**31%**) of businesses find it easy to train their existing employees. Current digital skills within the workforce are missing. **Over half (54%)** of businesses report that basic digital skills, such as backing up data, researching topics online, and using documents and spreadsheets, are the skills that their organisation is most lacking in. Interestingly, Italians themselves are rarely concerned about their lack of digital skills, with **only 14%** suggesting that this might limit their job opportunities, well below the European average of **30%**.



**To overcome this issue, Italian businesses are seeking to improve their employees' digital skills.**

Although **90%** of Italian businesses are offering some form of digital skills training, only **32%** are regularly implementing comprehensive digital training programs for all staff. This surpasses the European average of 26%, and only **10%** of Italian businesses do not currently invest in any form of digital skills training.

Further investment in regular and comprehensive digital training for both tech and non tech employees will be crucial, especially as businesses increasingly recognise the importance of digital skills. **54%** of Italian businesses report that in five years' time a job candidate's digital skills will be more important than their university degree qualifications.

## Citizens share excitement, but anxiety remains

**Italian citizens understand that AI is likely to have a large impact on their lives and on society in the coming years, but do not feel entirely positive about the technology.**

**56% of Italian citizens** believe that AI will impact their lives within the next three years, five percentage points ahead of the European average. However, **35% disagree**. Italians also expect AI to transform various sectors across society, including **transportation (66%), healthcare (61%) and education (61%)**. Not far behind, **52%** believe that AI will be important in dealing with society's greatest challenges, for example climate change.



However, there is also concern in Italy about the development of AI, with **75% of citizens** reporting some level of worry. Much of this is driven by concerns about AI causing job losses- an issue which **48% of citizens** are worried about. However, the Future of Jobs Report 2023, conducted by the World Economic Forum (WEF), suggests that these fears are overstated.<sup>1</sup>

The WEF estimates that the impact of digital technologies on jobs is expected to be a **net positive over the next five years**, with AI expected to have a 25.6% net positive effect on job growth. The key to unlocking a smooth transition within the workforce is ensuring that all are equipped with the right digital skills to be a part of the digital economy.

## Conclusion

This study shows that there is clear potential for Italy to meet the European Commission's targets for AI adoption by 2030, if increased rates of adoption are maintained by Italian businesses.

Italian businesses are enthusiastic adopters of digital technology, outpacing the European average in daily reliance and investment. AI adoption in Italy is less vigorous than in the rest of Europe, although Italian businesses that have adopted AI report significant benefits, including enhanced efficiency and business innovation.

Obstacles to digital adoption remain, most notably a lack of digital skills, which affects both recruitment and workforce training. Nonetheless, Italian businesses are more active than their European counterparts in implementing comprehensive digital skills training programs.

**Overcoming these barriers will enable Italian businesses to capitalise on the vast transformative potential promised by AI.**

# CASE STUDY:

Iveco Group



## Iveco Group: How Digital Technology is Helping Iveco Invent the Future of Transportation

Iveco Group is an Italian company that produces, builds, and designs trucks, buses, powertrains and vehicles, with a focus on off-road, firefighting, and military missions. Iveco Group is using AWS to further its business innovation by reducing costs for vehicle fleet owners, improving driver safety, and improving sustainability. Digital innovation has empowered Iveco to place customers at the centre of their vision.



### Core features:

- **'Working Backwards':** Iveco and AWS have been able to more effectively address problems, by working retroactively – using data and AI to pinpoint driver pain spots and develop effective and responsive solutions.
- **Vehicle Automation:** Iveco has developed 'Driver Pal', an innovative driver assistant based on Alexa vocal data, which has a clear objective to improve the safety and comfort of drivers. Driver Pal operates vocally, allowing drivers to keep their hands on the wheel and quickly and safely activate key car functions.
- **Driver Safety:** Iveco has been able to develop a driver index safety report, using advanced driver assistance systems, which has enabled insurance discounts and significant cost reductions.
- **Predictive Over Reactive:** Iveco Group has put data at the centre of its analytics, enabling it to anticipate and resolve problems before they occur.



### Digital technology has enabled Iveco Group to improve their processes in a number of ways:

- **Customer Centric:** predictive data and HD maps have enabled Iveco to anticipate breakdowns before they occur and inform drivers, significantly reducing driver downtime and disruption to their customers' business. Iveco, with AWS, has been able to improve driver comfort, safety, productivity, and communication.
- **Reducing Costs:** by allowing Iveco to anticipate breakdown and inform customers of them, predictive data and machine learning has enabled them to improve the reduction of unplanned stops by 20% from 2022, and by a further 40% this year, reducing disruption and saving on costs.
- **Improving Sustainability:** Iveco has been able to analyse the data of its connected vehicles in order to reduce energy and fuel consumption. Iveco has worked with Amazon to establish ambitious emissions targets, aiming for a 30% reduction in CO2 emissions by the end of the Digital decade (2030), and net zero by 2040.
- **Future Innovation:** Iveco's ambitions for future innovation focus on tooling digital technology to improve sustainability and automation, aiming for net zero emissions by 2040, automating their vehicles further, and creating cost efficiencies through a pay-as-you-go business model.

Iveco has been able to use a range of digital technologies, including artificial intelligence and machine learning, in order to create a unique business model and a customer centric approach. Digital technology has empowered Iveco to transform from a manufacturing and transportation company to one which develops new and innovative services for their drivers and partners.

### References:

1. The World Economic Forum (2023) 'Future of Jobs Report 2023'. Available at: <https://www.weforum.org/reports/the-future-of-jobs-report-2023/>