IRELAND

Ireland's digital ambitions are rapidly expanding, largely driven by an accelerated uptake of artificial intelligence (AI) technology.

Key Statistics

- Digital technologies such as AI and cloud computing could help to unlock €82 billion in economic growth (GVA) for the Irish economy by 2030.
- 56% of Irish businesses reported that cloud computing technologies have become more important to their business since 2022, while 54% state that Al has become more important.
- The number of Irish companies adopting AI increased by **26%** from 2022 to 2023. **34%** of Irish companies had adopted AI in 2023, above the European average of **33%**.
- **74%** of Irish businesses which have adopted AI are using large language models (LLMs) or generative AI.
- Despite this increased adoption, only **24%** of Irish businesses find it easy to hire staff with good digital skills.
- 54% of Irish citizens report being interested in learning new digital skills while over two thirds (69%) of businesses report that in five years' time a candidate's digital skills will be more important than their university qualifications.

Introduction

This study draws on surveys of over 15,000 businesses and 15,000 consumers in 14 countries across Europe, including 1,000 businesses and 1,000 consumers in Ireland. The first of its kind to cover this range of countries since the generative AI boom, this research reveals a significant acceleration in AI uptake across Europe, and that Ireland is on track to meet the ambitious targets of the Digital Decade, if the accelerated adoption of AI is maintained.

A key goal of the Digital Decade is for 75% of businesses to be using AI by 2030. Ireland is making strong progress towards this target; the percentage of Irish businesses which have adopted AI rose from 27% in 2022 to 34% in 2023. In one year, this represents a rise of over a quarter (+26%).

This report predicts that the increased uptake of digital technologies such as AI and cloud computing could help to unlock €82 billion in GVA for the Irish economy by 2030. This is equivalent to €15,818 per person.

In order to achieve this target, Ireland will need to overcome a number of challenges, especially a gap between digital ambitions and digital capabilities. This is reflected in increased emphasis on digital skills: over two-thirds (69%) of Irish businesses state that in five years' time, a candidate's digital skills will be more important in the hiring process than their university qualifications.

Among businesses which have some familiarity with AI, Irish businesses are leaders in Europe, surpassing the 59% European average for AI adoption. 64% of Irish businesses familiar with AI are using at least one AI technology consistently, while a further 17% are experimenting with AI.

Irish citizens share the excitement around AI and recognise the potential for it to transform industries over the next five years, from finance (78%) and education (65%) to entertainment (59%) and transport (57%). 46% of Irish citizens believe that AI will play an important role in addressing big societal challenges, such as climate change and disease control.

AWS is a collaborative partner in building Ireland's digital future. Sasha Rubel, EMEA Head of Public Policy for AI and ML holds a seat on the <u>Irish AI</u> <u>Council</u>, which provides independent expert advice to the government on AI policy.¹

Ireland's Digital Strategy is in line with the European Commission's <u>Digital Decade</u> policy programme. The EU's 2022 Digital Economy and Society Index (<u>DESI</u>) placed Ireland fifth out of the EU27 on digital progress. If Ireland acts decisively to maintain its accelerated AI adoption, this study shows that it could be on track to meet the Digital Decade target of 75% of businesses using AI and cloud computing by 2030.



Unlocking Ireland's Digital Potential

Ireland is rapidly increasing its adoption of advanced digital technologies, especially AI. Businesses and citizens are increasingly recognising its transformative potential, as this study estimates that digital transformation could unlock €82 billion in GVA for Ireland's economy by 2030.

Irish businesses are already heavily reliant on digital technologies, with more than three quarters (78%) of them reporting that digital technology is crucial to their everyday operations.

Looking forward, 84% of Irish businesses report that digital technology will continue to play a fundamental role in realising their five-year growth ambitions, and are planning to increase their digital adoption even further. Having increased investments in digital technology over the past year by 51%, they plan to increase digital technology investment again by 52% in the coming year, and by 64% in the next three years.

The digital ambition of Irish businesses is also reflected by their enthusiastic adoption of AI. 34% of Irish businesses adopted AI in 2023, a growth rate of 26% from 2022 to 2023.

Irish businesses are increasingly using generative AI to create new content. They are European leaders in their use of generative AI and LLMs, with 73% of Irish businesses that have adopted AI using these two forms of AI, compared to 66% of European AI adopters. A large majority of Irish businesses (86%) are also familiar with cloud computing – a technology that is foundational to the increased adoption of AI.

Digital Public Services

Central to the European Commission's vision for Europe's digital future is the target to make 100% of public services available online by 2030. The Irish government firmly believes in this vision, as set out in its government's digital strategy, and is investing in digitalising its public services in order to secure it.

A key example of digitalisation of public services is MyGovID, which 48% of the Irish population (1.8 million citizens) have used.² MyGovID verifies citizens' identities and provides a single account for them to access a range of public services in Ireland.



Despite strong digital public service provision, there are opportunities for further growth. Nearly half (49%) of Irish citizens are confident in their government's ability to grow its digital technology sector in the next five years. Although 41% report that they can already access the most important public services through digital technology, 59% think that there is significantly more that their government could do to make it easier for them to do so.

Although Ireland is a European digital leader, it must nevertheless remove several barriers to technology adoption in order to maintain its position and unlock the full potential of growth and value that can be generated. The most significant barrier to overcome is a lack of digital skills among employees. This threatens to prevent Ireland from achieving key goals of the Digital Decade, including that 75% of businesses use AI, and at least 80% of the population has basic digital proficiency by 2030.

A Worrying Skills Gap

While Irish businesses demonstrate enthusiasm for adopting sophisticated AI technologies, they report that too often their ambition outstrips the capabilities of the workforce. The key barrier identified in this study is a lack of basic digital skills among employees, which hinders the ability of businesses to adopt more advanced digital technologies.

While Ireland is quickly becoming more digitally advanced and further embraces AI, digital skills are not keeping pace. Less than a quarter (24%) of Irish businesses report finding it easy to hire staff with good digital skills. Additionally, training existing staff is also a challenge for businesses, with only 27% finding it easy to train existing staff in digital skills.



As a result, over half (51%) of Irish businesses report that the digital skillset most lacking in their organisation are basic digital skills, such as the ability to create a spreadsheet or edit a document. Irish businesses also estimate that it takes over six months from posting a job vacancy to finding an employee with the appropriate digital skills. Yet over two-thirds (69%) of Irish businesses state that in five years' time, a candidate's digital skills will be more important in the hiring process than their university qualifications.

The digital skills gap is also holding Irish businesses back in other ways. Almost a third (31%) of Irish businesses state that the lack of digital skills in their workforce has hindered growth, and more than a third (35%) report that it has increased operating costs. 30% of Irish businesses say that this skills gap is also preventing them from integrating more AI technologies.

Encouragingly, Irish businesses recognise the importance of upskilling their employees, with 91% currently investing in some form of digital skills training. However, only 27% regularly invest in comprehensive digital training programmes for all employees.

Irish citizens similarly demonstrate interest in skills training, with over half (54%) reporting that they would be interested in learning new digital skills. Citizens report increasing their confidence in using digital tools (41%), improving personal productivity (30%), and enhancing career prospects (22%) as key motivators for learning more digital skills.

Despite high appetite and businesses reporting offering training programmes, only 19% of Irish citizens believe that access to quality digital skills training is widely available. Furthermore, citizens report learning digital proficiency through their own independent research (54%) and trial and error (43%), ahead of through formal training programmes offered by work or schools.

The most frequently cited barriers to digital skills acquisition are a lack of time (41%) and the cost of training programmes (41%), as well as a lack of awareness about the available opportunities (30%).

of Irish businesses report finding it easy to hire staff with good digital skills



of Irish businesses regularly invest in comprehensive digital training programmes for all employees



of Irish citizens report that they would be interested in learning new digital skills

Recommendations for Policymakers

The recommendations made in this report aim to support the strong progress in digital adoption that has already been made in Ireland and to help unlock growth opportunities and overcome barriers to further uptake.

Skills

It is clear that Irish governments and businesses are ready and willing to adopt digital technologies, including AI, to unlock further growth, but must continue to prioritise investing in and developing comprehensive quality digital skills programmes for both tech and non-tech employees, covering both basic and advanced training. Without this training, businesses and employees will be held back.

Public and private sector collaboration will be required in order to develop, deploy, and raise awareness of the skills programmes required to help Ireland to meet the Digital Decade targets.

At AWS we recognise that digital and cloud skills will be key to Ireland's digital future. This is why AWS has committed to investing hundreds of millions of pounds to provide free cloud computing skills training for 29 million people by 2025 – reaching people from all walks of life and all levels of technical knowledge, in more than 200 countries, including the UK.

A key part of this commitment is <u>AWS re/Start</u>, which works to build an inclusive, diverse global pipeline of new cloud talent, and to engage individuals who otherwise might not have had access to a career in cloud computing. The programme prepares learners from unemployed and underemployed populations, who have little technology experience, for careers in the cloud.

AWS has also worked with the Tallaght Campus of Technological University Dublin (TU Dublin) to develop the <u>Data Centre Technician Programme</u>, while AWS's work with the University of Limerick's <u>Immersive Software Engineering Programme</u> has enabled this programme to become one of the most innovative software development courses in Ireland. In recent years, schools across Ireland have been participating in the <u>AWS GetIT programme</u>, a course and competition designed to inspire 12-14-year-old students, especially girls, to consider a future in STEM.

AWS also recently announced "<u>AI Ready</u>", a new commitment to provide free AI skills training to two million people globally by 2025. To achieve this goal, AWS launched new initiatives for adults and young learners, and scaled existing free AI training programmes to remove cost, one of the most frequently cited barriers by Irish citizens, as a barrier to learning these skills.

On a broader scale, Ireland's Digital Strategy lays out several measures to ensure a successful digital transition for Irish businesses, while the Irish government has launched an €85 million <u>Digital Transition Fund</u> to support companies in their digital transition.

Conclusion

Ireland is a digital leader in Europe, with a strong roadmap to guide its digital transition. Irish businesses and citizens are excited about the transformative potential of AI and are increasing their experimentation and innovation with the technology.

However, businesses and governments must collaborate in order to maintain growth in AI adoption. Chief among these obstacles is a gap in digital skills. A lack of basic digital skills among Irish businesses threatens to slow the adoption of more advanced digital technologies and must be addressed in a way that is accessible and realistic for employees. At the same time, maintaining the growth in AI uptake will require support for digital skills capabilities and a risk-based regulatory landscape that incentivises the adoption of innovative AI.

Overall, digital expansion and AI adoption can transform Ireland's future, enhancing its technological prowess on the world stage while making a substantial difference to the daily lives of businesses and citizens.

References:

- 1. Department of Enterprise, Trade and Employment, (2024) 'Artificial Intelligence Advisory Council will provide independent expert advice to government'. Available at: https://enterprise.gov.ie/en/news-and-events/department-news/2024/january/17012024.html
- 2. Citizens Information (2023) MyGovID. Available at: https://www.citizensinformation.ie/en/government-in-ireland/how-government-works/ egovernment/mygovid/