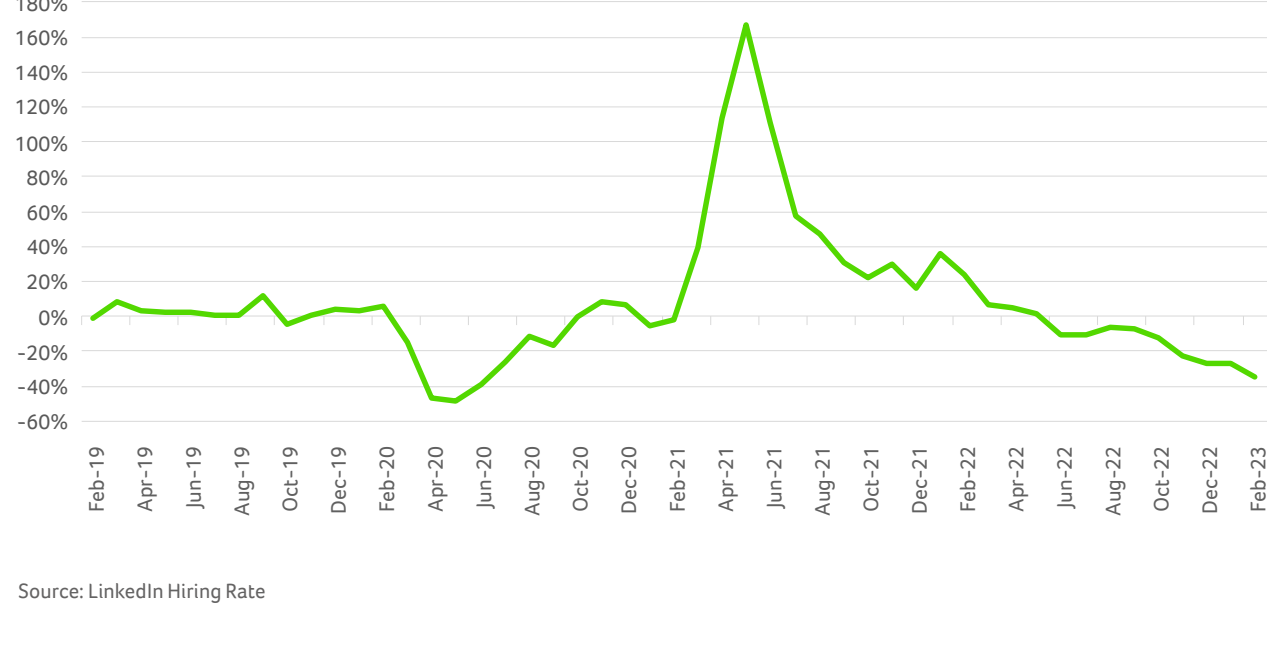




Fig.1 LinkedIn Hiring Rate



Source: LinkedIn Hiring Rate

Labour Market Trends

- The hiring rate continued to slow through the end of 2022, with rates sitting 27% lower in December 2022 than December 2021. This was maintained through the start of 2023, with rates sitting 27.2% lower in January and 34.7% lower in February year-on-year.¹
- The labour market stabilised in 2022 following rapid hiring during the reopening of the economy post-pandemic. Considering current economic headwinds, employees appear to choose stability over change, with longer tenures reflected in the decreasing hiring rate.
- The Irish labour market and economy continue to perform strongly despite these headwinds. IDA Ireland, Enterprise Ireland, and the Local Enterprise Offices all reported strong jobs growth in 2022.² Unemployment stood at 4.4% in December and GDP grew 12.2% annually.³

1 The Digital Transition: Artificial Intelligence

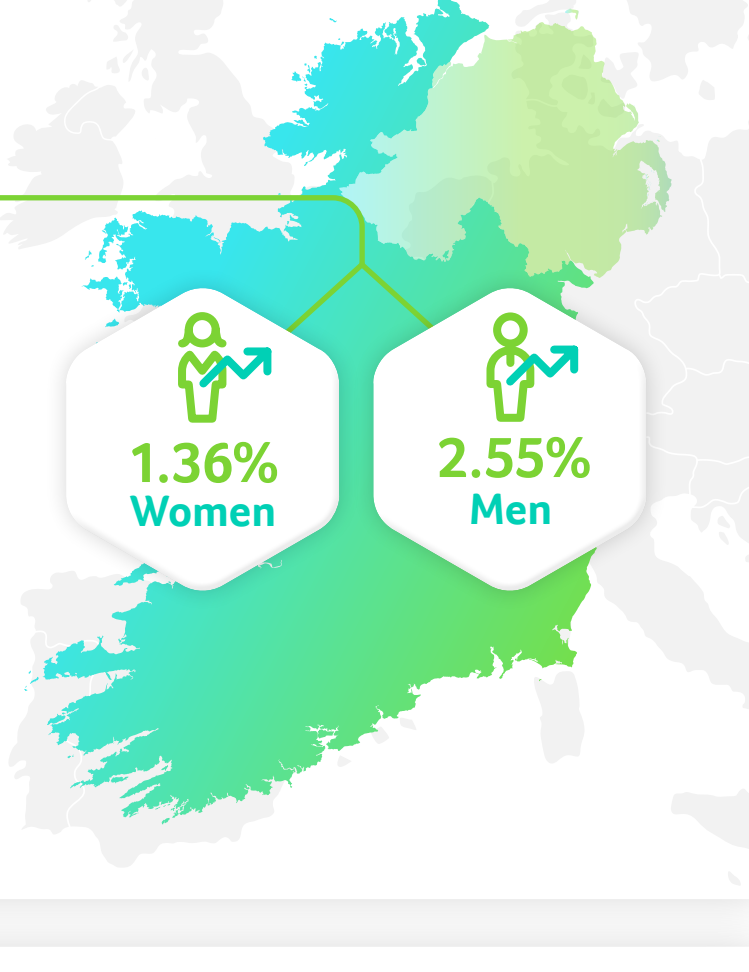
- Artificial intelligence (AI) has seen rapid growth in recent years, with the industry predicted to be worth \$422.4 billion by 2028 (39.4% CAGR).⁴ While the technology sector leads in adoption, AI has applications across multiple sectors and business functions.
- The World Economic Forum predicts that 97 million jobs involving AI will be created between 2022 and 2025, with no net job losses. Upskilling will be key for companies and individuals as the AI transition continues.⁵
- The breadth of applications for AI has enhanced the importance of creating trustworthy AI. Governments and companies have paired development and adoption of AI technologies with the design of responsible AI principles to ensure core values are maintained.^{6,7}

2 Growth in AI Talent

- AI is anticipated to impact jobs and skills across sectors – from new jobs required to deploy and regulate AI to jobs that will change because of AI adoption. Businesses are generally at the early stages of identifying their potential use of AI.
- LinkedIn data shows that the share of AI talent in Ireland grew more than 500% between 2016 and 2022, from 0.34% of LinkedIn members to 2.09%. This is in line with global figures.^{8,9,10}
- Recent emphasis on investment in AI resulted in an upturn in AI talent growth for both Irish (+28.5%) and global (+42.1%) figures between 2021 and 2022.

3 Increasing gender diversity in AI teams is a work in progress

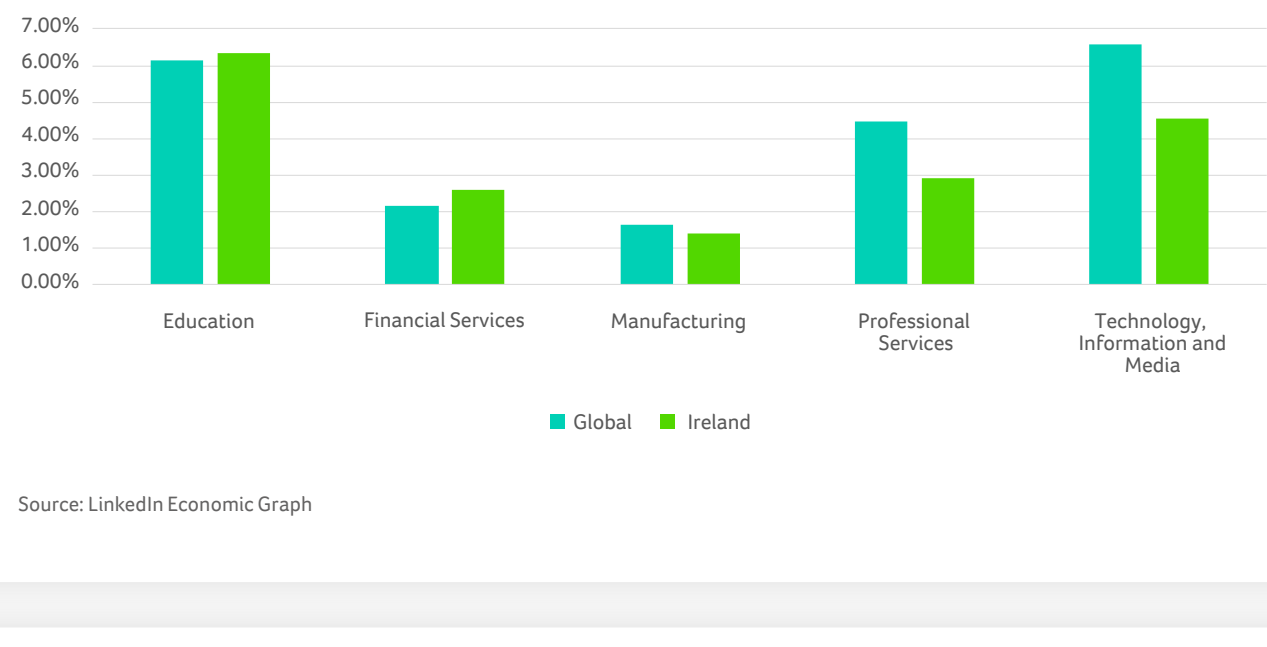
- LinkedIn data shows that **1.36% of women and 2.55% of men** in Ireland were considered AI talent in 2022.
- Though research shows a correlation between diversity and high performance, women are underrepresented in AI teams. However, progress is being made, with the number of women considered AI talent growing faster year-on-year than men (40.5% vs. 34.7% on average, 2016-2022).
- This is also shown in 3rd level enrolment figures. **Female enrolment** in relevant programmes across Ireland **increased 62%** between 2015-2021 while **male enrolment increased 28%**.¹¹



4 Insights on AI Talent Across Sectors

- Since 2016, all measured sectors have seen considerable growth in AI skills.¹²
- Globally, LinkedIn members employed in Technology, Information, and Media possessed the largest share of AI talent, at 6.58% in 2022. In Ireland, LinkedIn members in Education held the highest share, at 6.36%, reflecting Ireland's strong position as a hub for research and innovation.
- The most common occupations for AI talent in Education were Professor, Postdoctoral Researcher, and Research Assistant.

Fig.2 AI Talent by Sector

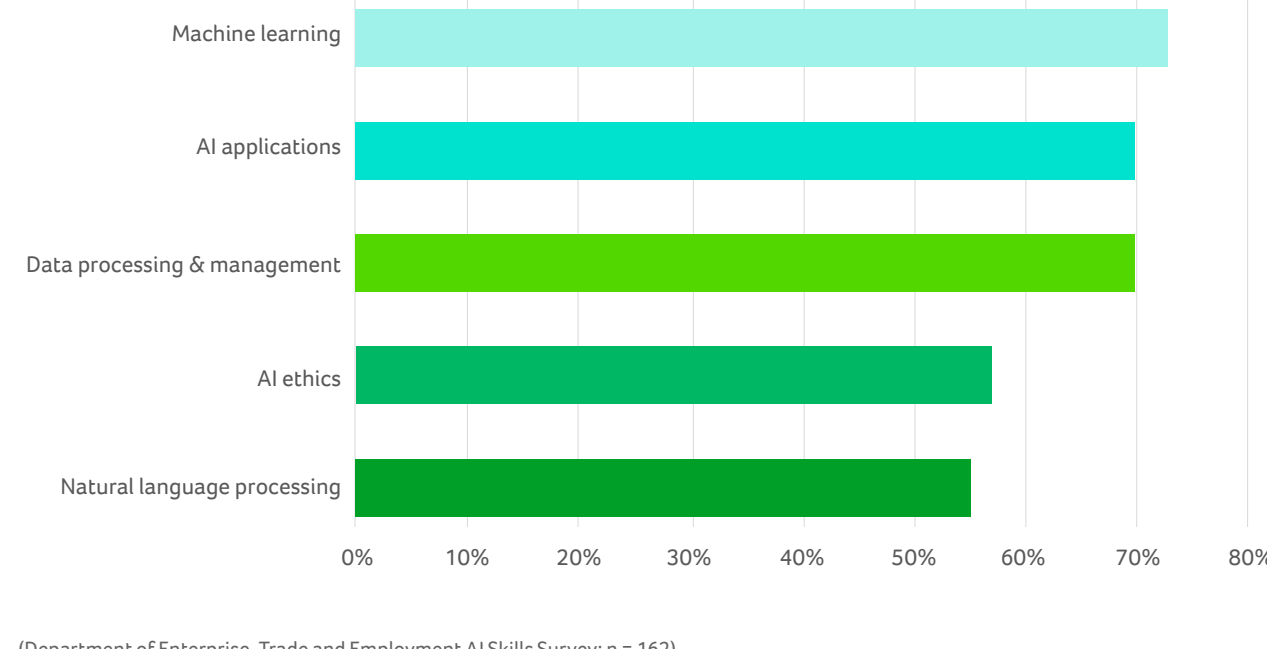


Source: LinkedIn Economic Graph

5 Tech talent demand will continue to grow

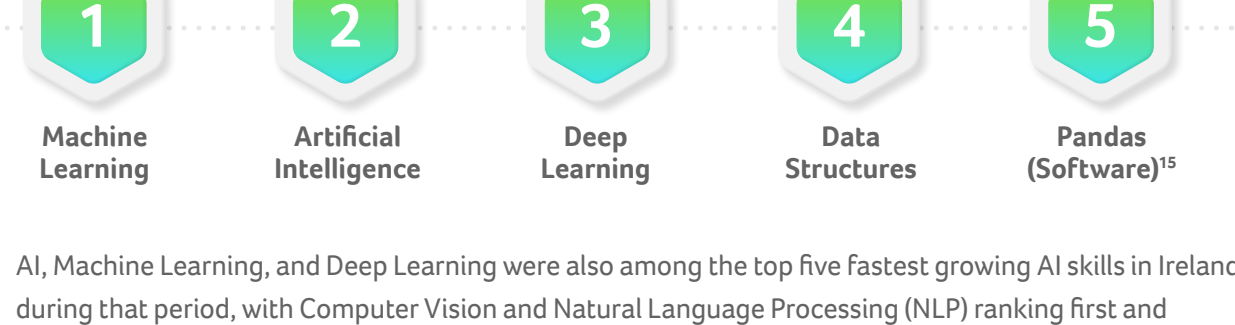
- Demand for AI skills continues to outstrip supply. Skills availability has been identified as the most important obstacle to the adoption of AI for firms both in Ireland and across the EU.¹³
- Machine Learning, AI Applications, and Data Processing & Management were identified as key technical AI skills needs in a 2021 Department of Enterprise, Trade, and Employment (DETE) survey.¹⁴

Fig.3 AI Technical Skills Needed by Users & Innovators



(Department of Enterprise, Trade and Employment AI Skills Survey; n = 162)
Source: Expert Group on Future Skills Needs, AI Skills Report

- This is in line with LinkedIn data on skills growth. Between 2015-2021, the most frequently added AI skills in Ireland were:



- AI, Machine Learning, and Deep Learning were also among the top five fastest growing AI skills in Ireland during that period, with Computer Vision and Natural Language Processing (NLP) ranking first and second.

6 Ireland for AI

- There is still a lot to discover about the impact of AI on skills needs and demand is growing quickly.
- Companies are responding to the AI skills shortage by focusing on upskilling and reskilling of employees and there has been strong growth in AI work permit applications.
- Ireland has introduced a range of initiatives building awareness and capacity in AI, including the appointment of an AI Ambassador, the introduction of a National Masters in AI, and a digital strategy for schools.
- There are more than 105 courses in AI and related areas available across Ireland and several Science Foundation Ireland (SFI) Centres for Research Training focus on the application of AI skills to real world and business problems, providing a strong foundation for collaboration between industry, academia, and Government in this field.
- Ireland also has a National Centre for Applied AI, CeADAR, supported by IDA Ireland and Enterprise Ireland. CeADAR has more than 90 industry partners across sectors and is one of only 30 EU AI Digital Innovation Hubs across the European Union.¹⁶
- Ireland's highly skilled workforce, strong research and education systems, and culture of innovation make it well-positioned to lead in the development and adoption of AI.

IDA Ireland, LinkedIn and Microsoft have partnered to bring you quarterly updates on Ireland's employment dynamics using LinkedIn's high frequency labour market insights.

¹ LinkedIn has over two million members in Ireland. The LinkedIn Hiring Rate (LHR) is the number of LinkedIn members who added a new employer to their profile in the same month the new job began, divided by the total number of LinkedIn members in that country. This comprehensive coverage of labour force working across a range of companies and business in Ireland provides near-real time insights on the labour market.
² IDA Ireland Annual Results 2022; Enterprise Ireland Annual Results 2022; LEO Annual Results 2022
³ CSO, Monthly Unemployment January 2023 and Preliminary GDP Estimate Q4 2022
⁴ Bloomberg Business, Growth measured using Compound Annual Growth Rate (CAGR), 27 June 2022
⁵ World Economic Forum, Future of Jobs Report 2020, 20 October 2020
⁶ Microsoft, Responsible AI Principles
⁷ AI - Here For Good: National Artificial Intelligence Strategy for Ireland, 8 July 2021
⁸ According to LinkedIn, a member is considered an AI talent if they have explicitly added AI skills (i.e., Machine Learning) to their profile and/or they are occupied in an AI occupation (i.e., Data Scientist, Robotics Engineer).
⁹ The LinkedIn results presented in this Pulse represent the world seen through the lens of LinkedIn data, which is based on the composition of LinkedIn membership in Ireland. As such, it is influenced by the representation of certain occupations on the site and how members choose to use the site, which can vary based on professional, social, and regional culture, as well as overall site availability and accessibility. These variances were not accounted for in the analysis.
¹⁰ LinkedIn Economic Graph
¹¹ Higher Education Authority, Key Facts and Figures, Enrolment Trends, Enrolments by Gender 2015-2021, ISCED Detailed Field of Study 0613 Software and Applications Development and Analysis.
¹² Measured sectors are Education, Financial Services, Manufacturing, Professional Services, and Technology, Information, and Media. Education includes several sub-industries including Higher Education and E-Learning Providers.
¹³ Expert Group on Future Skills Needs, AI Skills Report, May 2022
¹⁴ Ibid
¹⁵ LinkedIn defines skills as concepts that describe knowledge or a personal characteristic that connects members to economic opportunity. LinkedIn sees skills in three ways: industry knowledge, interpersonal, and tools & technologies. Industry knowledge can imply expertise in the listed area, i.e., expertise in Artificial Intelligence. "Adding skills" is a LinkedIn member adding the listed skill to the 'Skills' section at the bottom of their profile.
¹⁶ <https://ceadar.ie/>