AI Jobs Barometer

Germany Findings

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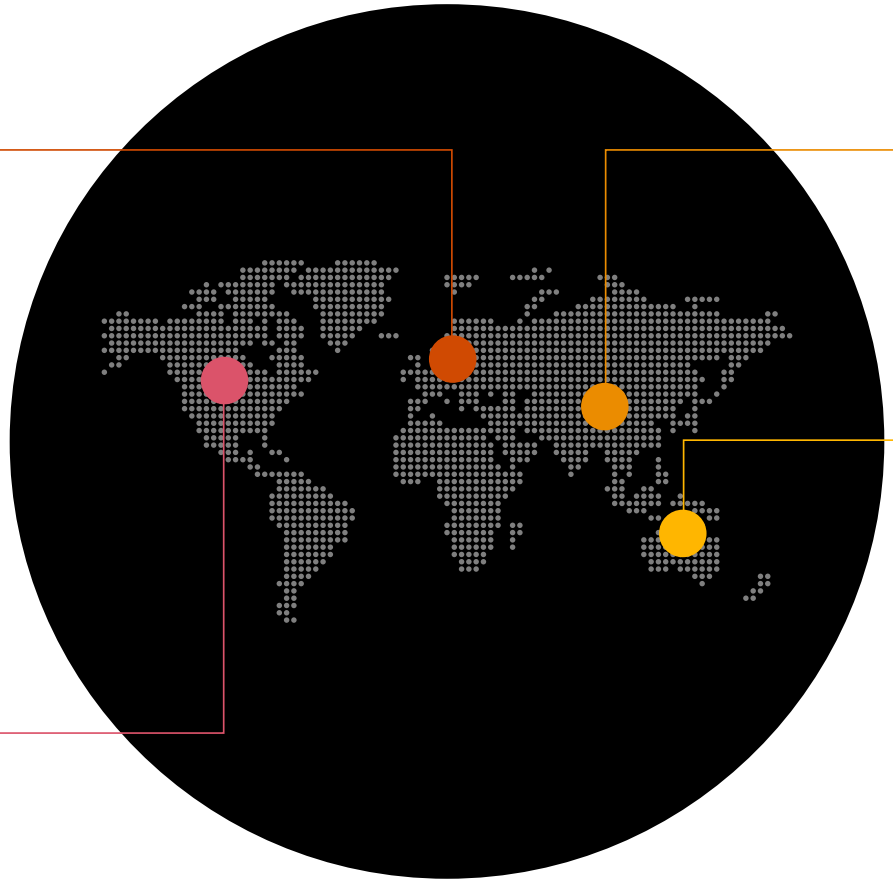
The AI Jobs Barometer uses half a billion job ads from 15 countries to examine AI's impact on jobs, skills, wages, and productivity

Europe
UK
France
Germany
Spain
Italy
Belgium
Denmark
Netherlands
Norway
Sweden



Asia
Singapore

Australasia
Australia
New Zealand

N America
USA
Canada

Executive Summary of Global Findings

We find evidence that AI is transforming what workers and companies can achieve. There is no going back to yesterday's jobs market, but - if carefully managed - this jobs transition could bring a bright future for workers.

Our data shows AI may be able to help with deep economic challenges. Sectors more exposed to AI are seeing sharply higher labour productivity. This could help to break many nations out of persistent low productivity growth, generating economic expansion, higher wages, and enhanced living standards. In addition, we find that AI can help to ease labour shortages that are likely to become more acute as populations age.

Workers must adapt to an AI era. Old skills are disappearing from job ads - and new skills are appearing - 25% faster in jobs more exposed to AI. To stay relevant in these roles, workers may need to demonstrate or acquire new skills. Workers who learn to harness AI are likely to be more productive and valuable than ever, and all within a context of rising societal prosperity.

One key to a bright future for workers is for companies and workers to fully embrace AI. Instead of thinking only about how AI can replace people (which is fundamentally backward-looking), we should think inventively about how we can make the most of AI to create entirely new industries and roles for people.

Our findings suggest priority actions for companies, workers, and policymakers to manage a disruptive jobs transition while realising the potential of AI to do good for society.

Good news for the global economy

- 4.8x greater labour productivity growth in sectors more exposed to AI
- 27% lower growth in job openings in AI-exposed roles, helping to ease labour shortages
- Jobs that require AI skills carry up to a 25% wage premium on average, underlining the value of these skills to companies

A disruptive jobs transition

- Skills required for AI-exposed jobs are changing 25% faster than in less exposed jobs
- Sharp declines in demand for some AI-replaceable skills
- Some skills rising in demand complement AI or are relatively immune to AI disruption

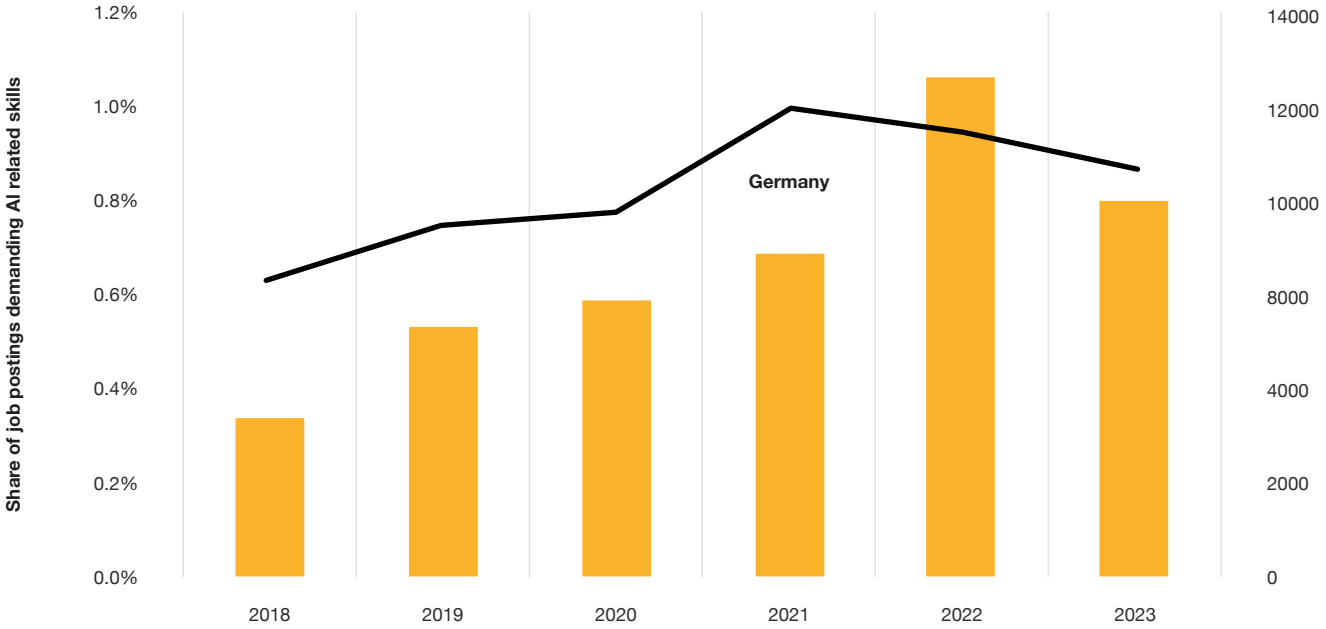
Next steps for policymakers, companies, workers

- Embrace uses of AI to grow productivity and prosperity, ensuring benefits are shared
- Encourage use of AI in partnership with people (which can lead to better results)
- Upskill workers for an AI age
- Ensure the responsible use of AI

Germany Findings

The share and number of job postings in Germany demanding AI related skills has increased significantly since 2018

Total number and share of job postings requiring AI related skills, Germany, 2018-2023

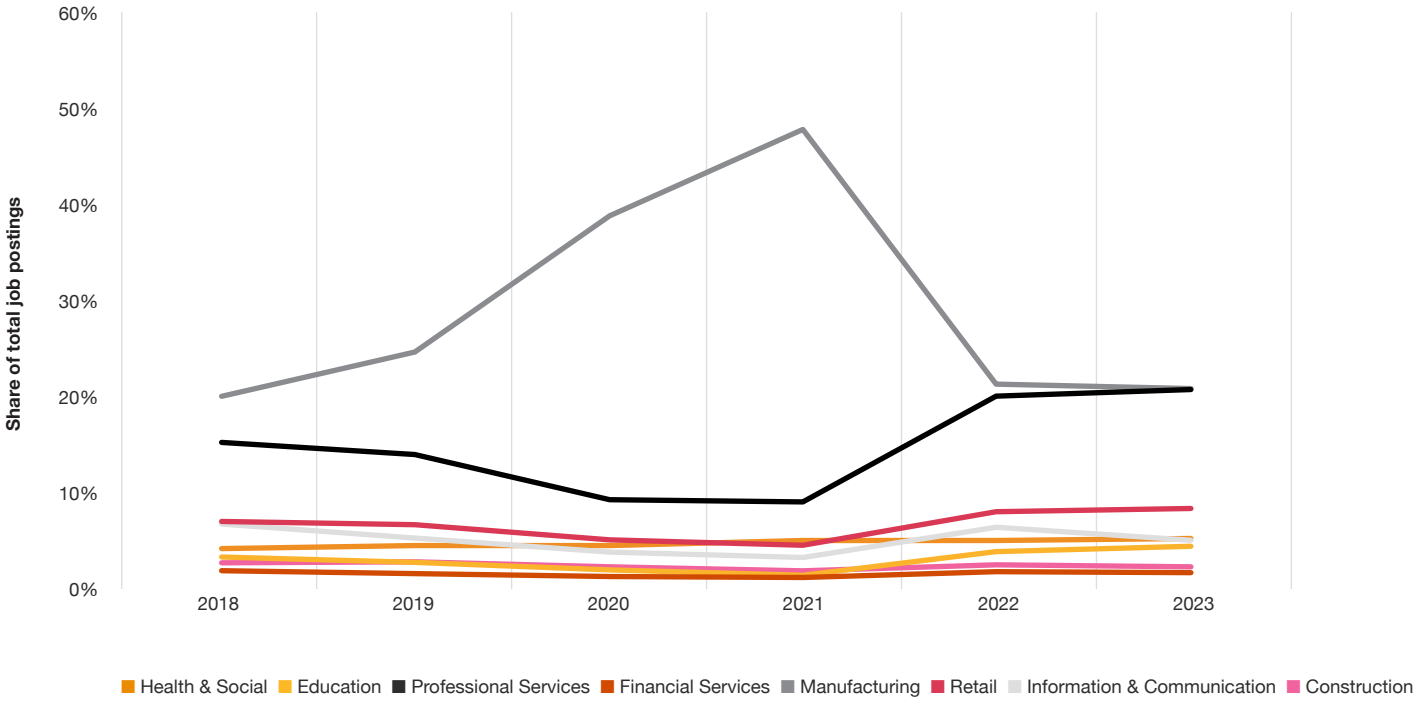


- Over the last six years, there has been an upward trend in the share and number of job posts demanding AI related skills.
- In 2018, six in one thousand job posts required AI skills. Five years later, nine in one thousand job posts required AI skills.

Sources: PwC analysis of Lightcast data

The Manufacturing sector has remained the largest seeker of employees over the five years

Share of all job postings by sector, Germany, 2018-2023

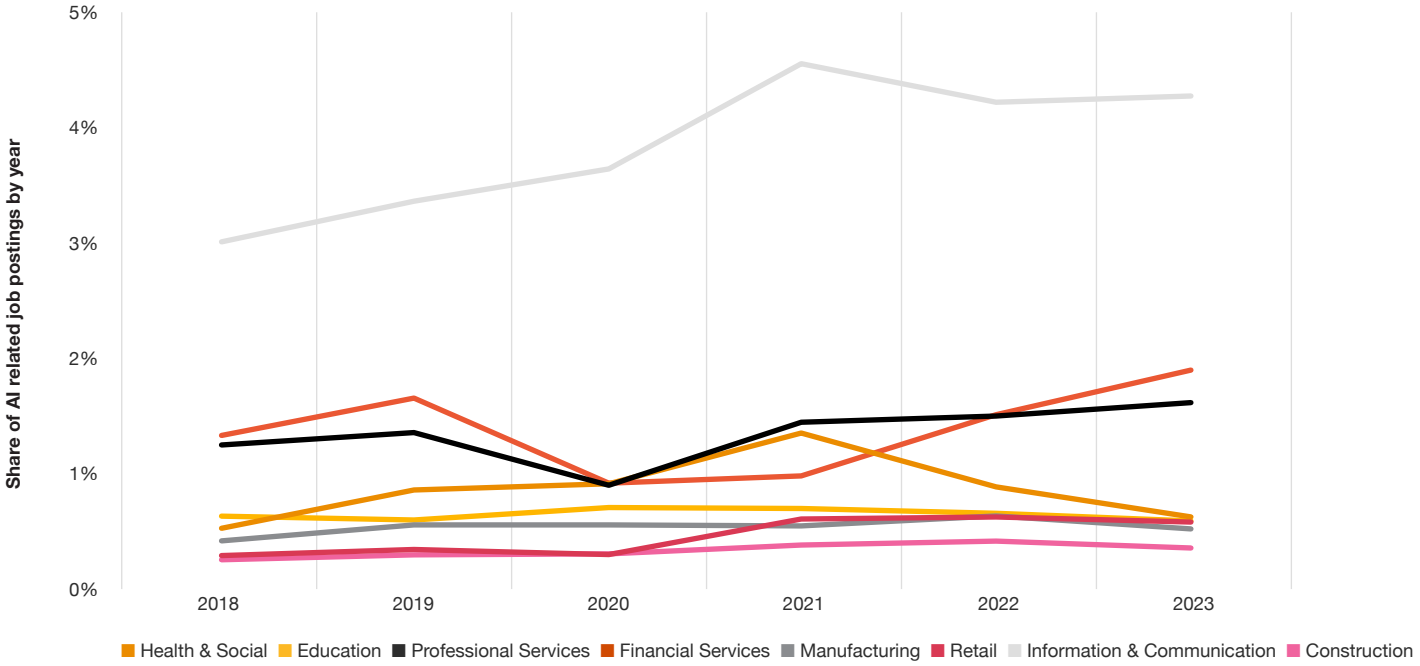


- The Manufacturing sector share increased by 28.2 percentage points between 2018-2021, before dropping significantly in 2022 to similar levels in 2018.
- Despite experiencing a downwards trend between 2018-2021, the Professional Services sector share increased 5.6 percentage points following a strong increase in 2022.
- The share of the Health & Social, Education, Construction and Financial Services sectors has remained relatively stable and low.

Sources: PwC analysis of Lightcast data
Notes: In this figure we consider seven of the 19 sectors. The seven sectors capture public, private and financial sectors and are commonly considered together in socio-economic analysis.
Sectors excluded: Agriculture, Mining, Power, Water, Retail trade, Transportation, Accommodation, Real Estate, Administrative activities, Arts and Entertainment, Household activities and Extraterritorial Activities.
Fluctuations in yearly data should be considered in the context of broader trends, as they may result from various temporary or sector-specific factors, including the impact of events such as the COVID-19 pandemic.

Demand for AI related jobs has increased in most sectors between 2018 and 2023

Share of AI job postings in each sector, Germany, 2018-2023

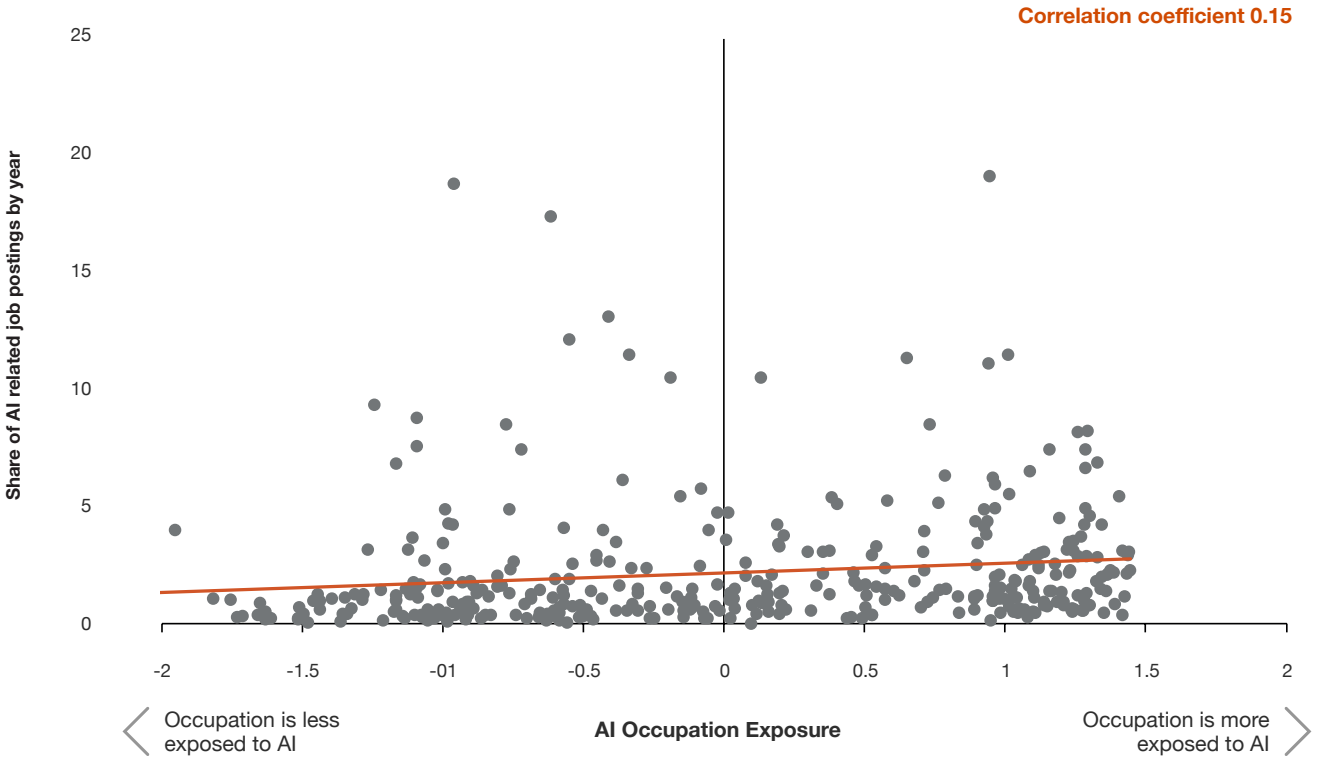


- Sectors highly exposed to AI, such as the Financial Services, Information & Communication and Professional Services have experienced a significant increase in the share of online job postings that demand AI-related skills.
- For the Information and Communication sector in 2018, roughly three in a hundred job posts required AI skills. Five years later, four in one hundred job posts required AI skills.
- The Professional Services and Financial Services sectors also increased significantly during the period, growing by 0.3 and 0.5 percentage points respectively.

Sources: PwC analysis of Lightcast data
Notes: In this figure we consider seven of the 21 sectors. The seven sectors capture public, private and financial sectors and are commonly considered together in socio-economic analysis.
Sectors excluded: Agriculture, Mining, Power, Water, Retail trade, Transportation, Accommodation, Real Estate, Administrative activities, Arts and Entertainment, Household activities and Extraterritorial Activities.Fluctuations in yearly data should be considered in the context of broader trends, as they may result from various temporary or sector-specific factors, including the impact of events such as the COVID-19 pandemic.

Occupations which are highly exposed to AI altered their skill mix more

Net change in the number of skills demanded against AI, Germany, 2019-2023



- There is a positive correlation between occupations being exposed to AI and their net-skill change.
- This suggests that workers in occupations highly exposed to AI may have to acquire more new skills over the course of their career than do workers in lower exposed occupations.
- This may be associated with AI replacing or complementing skills, especially among jobs more exposed to AI.

Sources: PwC analysis of Lightcast data, ISCO-08 Occupation Codes (4-digit level), Felten et al. (2021).
Notes: The net skill change is based on Deming and Noray (2020) and is calculated by using the difference between 2019-2023 in the total number of skills required by job occupations using the ISCO-08 4-digit occupational codes. The AI Occupation Exposure is from Felten et al's (2021). and measures the degree to which occupations rely on abilities in which AI has made the most progress in recent years.
The correlation coefficient is the statistical measure that quantifies the strength and direction of a linear relationship between unfilled job vacancies and AI Sectoral Exposure.

Due to data limitations the wage premium for Germany is not presented

We have not included wage premium data for this country as it is potentially misleading for the following reasons:

- Insufficient data
- Insignificant sample sizes

Sources: PwC analysis of Lightcast data, ISCO-08 Occupation Codes (4-digit level)

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