



INDUSTRY REPORT
TECH
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ie
UNIVERSITY
TALENT & CAREERS

AGENDA

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Industry Overview

The technology industry in 2025 continues to be one of the most dynamic and rapidly evolving sectors, driven by groundbreaking innovations, increasing regulatory scrutiny, and a growing emphasis on sustainability. After the post-COVID hiccup, most companies are back to healthy hiring paces and the demand for all types of profiles is back to 2021 levels. Artificial intelligence, particularly generative AI, has become a key driver of transformation, impacting nearly every industry and redefining traditional business models. This sector is the first to be impacted by emerging technologies and companies are investing heavily in cloud computing, edge computing, and automation to maintain competitiveness. Additionally, cybersecurity threats and data privacy concerns remain at the forefront, influencing business strategies and governmental policies worldwide. Amid all this change, there are certain main trends we can identify within the sector:

Current Trends

- **Hyperautomation:** Organizations are increasingly deploying AI-driven automation across various functions, from software development and customer service to supply chain management and financial forecasting. This trend is reducing costs, improving efficiency, and reshaping the job market by altering skill requirements and headcount allocation.
- **AI-Driven Business Models:** Companies across industries are restructuring their business models to incorporate AI at their core. AI-driven decision-making, predictive analytics, and automation tools are enhancing productivity and customer engagement.
- **Sustainability in Tech:** With growing concerns about climate change and energy consumption, the tech industry is prioritizing sustainability. Companies are investing in energy-efficient data centers, carbon-neutral cloud solutions, and sustainable hardware production. Green IT strategies, including circular economies for electronic waste management, are gaining traction.
- **Geopolitical and Supply Chain Impacts:** The global semiconductor shortage and shifting trade policies have prompted companies to diversify their supply chains and invest in their domestic manufacturing capabilities.

- **Cybersecurity:** the cybersecurity landscape is undergoing a rapid and dynamic transformation, driven by escalating cyber threats and a surge in investments aimed at fortifying threat detection, incident response, and comprehensive risk management strategies.
- **Cloud computing:** The delivery of computing services—such as storage, processing power, and networking—over the internet, allowing businesses and individuals to access resources on demand without needing physical infrastructure. In the coming years, it will drive innovation by enabling AI, IoT, and big data analytics, reducing costs, and improving scalability. The rise of edge computing and hybrid cloud models will enhance efficiency, while increased cybersecurity measures will address growing security concerns. Cloud adoption will continue reshaping industries, fueling digital transformation across sectors.

Emerging Technologies/Innovations

- **Quantum Computing:** While still in its infancy, quantum computing is expected to revolutionize industries such as cryptography, logistics, pharmaceuticals, and financial modeling by solving complex problems at unprecedented speeds.
- **AI-Powered Automation:** AI-driven automation is making significant strides, particularly in robotics, natural language processing, and autonomous systems. This is transforming industries from manufacturing to healthcare.
- **Edge Computing:** With the proliferation of Internet of Things (IoT) devices, real-time data processing is becoming increasingly crucial. Edge computing is reducing latency, improving data security, and enabling real-time analytics at the source.
- **Spatial Computing:** Offers immersive ways to contextualize data and interact with digital systems, blending the physical and digital worlds.
- **Cybersecurity Enhancements:** As cyber threats become more sophisticated, companies are integrating AI-powered threat detection, zero-trust security models, and biometric authentication to enhance cybersecurity resilience.

Industry Growth

- The global tech sector is projected to grow at a compound annual growth rate (CAGR) of 8-10%, with AI, cloud computing, and cybersecurity leading the expansion. Strategic transformation is a key driver of growth for Technology Service Providers, enabling them to uncover new markets and opportunities, and consequently the impact of these new technologies will not only stay within the sector itself.



- The demand for AI-driven solutions is fueling job creation in areas such as machine learning engineering, data science, and cybersecurity analytics. This translates to significant opportunities for job seekers with skills in high-demand areas such as AI development and management, cloud computing, cybersecurity, and software engineering. In-demand profiles include AI specialists, cloud architects, cybersecurity experts, data scientists, and software developers proficient in emerging technologies.



Impact of Global & Regional Trends

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2.1 Global Trends Impacting the Industry

- **Geopolitical Risks:** Trade disputes, semiconductor shortages, and evolving regulatory frameworks are reshaping global supply chains and investment priorities. The new US administration policies have already had their effect nationally and abroad, and we should continue to feel the shift for the rest of the year with investments in Tech being redistributed.
- **Regulatory Scrutiny:** Governments worldwide are tightening regulations around AI ethics, data privacy, and cybersecurity. Companies must ensure compliance with laws such as the European Union's AI Act and the U.S. AI Bill of Rights. This has been the case with data and companies like Meta in Europe before and has led to friction between member states and corporations.
- **Remote and Hybrid Work:** The shift toward remote and hybrid work models has increased the demand for cloud-based collaboration tools, cybersecurity solutions, and decentralized workforce management systems.
- **Sustainability Initiatives:** Governments and organizations are under increasing pressure to adopt environmentally friendly technologies, reduce carbon footprints, and invest in renewable energy sources. Google, Amazon and Microsoft are leading this new green revolution within the sector with initiatives for cleaner energy sources.

2.2 Regional Trends



EUROPE

The European Union continues to implement stringent AI regulations and sustainability mandates, pushing tech companies to prioritize ethical AI development and green technology investments. Dublin and Amsterdam continue to attract most of the technical talent, but companies are also seeking lower cost per employee in the Baltics and Eastern Europe.



NORTH AMERICA

The U.S. remains a hub for AI and cloud computing innovation, with significant investments in emerging technologies such as quantum computing and autonomous systems. When it comes to Tech, Austin, and Texas in general, are emerging as the new hub.



ASIA

China, South Korea, and Japan are leading advancements in semiconductor manufacturing, quantum computing, and 5G infrastructure. Particularly in China, companies are demonstrating the value of combining generative AI with analytical AI to achieve strong returns on investment and productivity improvements, offering lessons for global tech leaders. Trade issues and the "buy-local" push in China are influencing the server ecosystem, requiring companies to evaluate partnerships and supply chains carefully for the market.

2.3 Regulatory Changes

- The rapid advancement and increasing application of AI are leading to growing discussions and potential regulatory changes concerning data collection and use limitations, fairness concerns, and the lack of transparency in AI systems. New laws and regulations could impact hiring practices, data privacy, operational standards, and the ethical deployment of AI. The EU AI Act introduces transparency requirements for AI decision-making, emphasizing explainability and fairness.
- The U.S. has tightened cybersecurity regulations, mandating stricter compliance for companies handling sensitive consumer data. Regulations around post-quantum cryptography might emerge as quantum computing capabilities advance, requiring organizations to update their encryption practices proactively.
- Data privacy laws, such as GDPR and California's Consumer Privacy Act, are influencing global digital marketing and consumer data strategies. This has been a reality in Europe for years and other regions of the world should follow suit, leading to further investments in cybersecurity and data protection.

Sector-Specific Insights

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The technology sector is witnessing profound transformations, with key innovations and disruptions reshaping business landscapes.

3.1 Tech Innovations and Disruptions

- **AI Automation:** AI is enhancing business operations by streamlining workflows, improving efficiency, and enabling real-time decision-making.
- **Cybersecurity Threats and Solutions:** The increasing sophistication of cyberattacks has led to greater investment in AI-powered threat detection, zero-trust security frameworks, and advanced encryption technologies.
- **Cloud-Based IT Services:** Organizations are migrating to cloud-based infrastructures to enhance agility, scalability, and cost-effectiveness. The rise of cloud computing has fundamentally altered IT delivery and consumption models, with a proliferation of "as-a-service" offerings.

3.2 Tech Talent Demand

- The demand for AI specialists, cloud engineers, cybersecurity professionals, and data scientists continues to grow. The most demanded skills reflect these needs and have to do with data warehousing, software development, AI engineering and information security.
- Companies are seeking professionals with interdisciplinary expertise, blending technical skills with business acumen. Growing job roles in the sector are foreseen to include Digital Transformation Specialists, Software and Applications Developers, Sales and Marketing Professionals, AI and Machine Learning Specialists, Big Data Specialists, and Data Analysts and Scientists.

- The demand for tech talent remains high, with specific emphasis on skills related to the newest innovations. AI skills are particularly sought after, including expertise in machine learning, natural language processing, and the development and management of various AI models (LLMs, SLMs, etc.). Cloud computing expertise, encompassing architecture, deployment, security, and management of cloud-based infrastructure and services, is crucial. Cybersecurity professionals with knowledge of threat detection, data protection, and emerging security paradigms like zero trust and post-quantum cryptography are in high demand. Strong software development skills, including proficiency in modern programming languages, agile methodologies, and the ability to leverage AI tools for code generation and testing, are also essential. These circumstances present an incredible opportunity for our SciTech students and those with technical backgrounds.

3.3 Key Sub-Sectors to Watch

- **Healthtech:** AI-powered diagnostics, telemedicine, and personalized healthcare solutions are transforming patient care. These solutions enhance patient care, reduce costs, and improve efficiency while attracting significant investment and creating new job opportunities. The industry is driving economic growth by expanding digital health services, optimizing healthcare operations, and reshaping insurance models. However, challenges such as data privacy, regulatory hurdles, and accessibility remain. With continued advancements in AI, big data, and personalized medicine, Health Tech is set to revolutionize global healthcare and remain a key driver of economic transformation.
- **Edtech:** This is a rapidly expanding sector that integrates digital tools, AI, and online platforms to enhance learning, accessibility, and efficiency in education. It includes e-learning platforms, AI-driven tutoring, virtual and augmented reality, and adaptive learning systems. By democratizing education, reducing costs, and providing personalized learning experiences, EdTech is reshaping traditional classrooms and corporate training. The sector is attracting significant investment, driving job creation, and fostering economic growth. However, challenges such as the digital divide, data privacy concerns, and regulatory barriers persist. With ongoing technological advancements, EdTech is poised to revolutionize education and remain a key force in the global knowledge economy.

Top Employers and Strategic Partnerships

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Highlighting the key employers in this sector and their engagement with IE University.

- **Top employers:** Based on our student placement data, several key tech companies have demonstrated strong hiring trends over the past three years. Amazon Web Services (AWS) stands out as one of the top recruiters, consistently increasing its intake of our students, reaching its highest numbers in 2024. Celonis and Onetrust have also shown significant growth in hiring, particularly in 2023 and 2024, reinforcing their commitment to talent acquisition from our university. On the other hand, BMC has maintained steady hiring levels, while Fever has experienced a noticeable upward trend, especially in the most recent year. Salesforce continues to expand its engagement, with a consistent increase in hires each year. These hiring patterns indicate a positive trajectory for our partnerships with these companies, reflecting both the high demand for our graduates and the growing trust in our student talent pool.
- **Key partnerships with IEU:** Our key strategic partnerships continue to strengthen, driving exceptional opportunities for our students and reinforcing our position as a top talent provider in the tech industry. Through our collaboration with OneTrust, we have become a key partner in their expansion within the tech sector, deepening our engagement and positioning our students for success. Amazon/AWS has re-entered the fold with renewed commitment, actively developing initiatives that enhance employability and innovation. Our bi-yearly events with Salesforce and Celonis have become cornerstone engagements, fostering sustained collaboration and reinforcing long-term recruitment pipelines. Additionally, our status as the preferred institution for mid-market leaders like BMC and Celonis highlights the trust these companies place in our graduates. Oracle, Infosys and SAS have recently gotten to closer to IE and we can expect these collaboration to bear fruit soon.

- Looking ahead, IE's transition toward becoming a polytechnic school marks a transformative shift that will further elevate our partnerships and enhance student career prospects, ensuring they remain at the forefront of industry demand.
- **Recruitment volumes:** In 2024, our technology sector placements included close to 400 students. Top employers are varied this year, with companies like Amazon, Google, Uber, and Telefonica featuring prominently. Newer players, such as Celonis and Onetrust were also key recruiters. We have experienced growth since 2023, which highlights strong industry demand for our graduates and an overall sector recovery.



Talent Needs and Recruitment Trends

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An analysis of talent demand in this sector, focusing on in-demand skills, recruitment patterns, and future job roles.

- **In-demand skills:** AI development, blockchain, cloud security, and sustainable IT solutions are among the most sought-after skills. There's a critical need for specific skills. Artificial intelligence (AI) is a recurring theme, with demand for professionals who can develop, manage, and understand various AI models, including LLMs, SLMs, multimodal AI, and agentic AI. Cloud computing expertise remains essential for the architecture, implementation, security, and management of cloud services. Cybersecurity is another area of significant demand, especially with the looming threat of quantum computing, requiring skills in post-quantum encryption. Strong software development skills, encompassing modern programming languages, agile methodologies, and the use of AI tools for code generation and testing, are also crucial. Furthermore, the increasing importance of specialized hardware for AI, such as neural processing units (NPUs), suggests a growing need for expertise in this domain.
- **Recruitment trends:** Companies are prioritizing professionals with interdisciplinary expertise in technical and business strategy, which is something that places IE students in a privileged spot. Due to the difficulty in hiring professionals with cutting-edge skills like AI and quantum cybersecurity, companies are increasingly focusing on upskilling their existing workforce. AI itself can play a role in this by providing personalized learning paths and identifying skills gaps. This aligns with a broader understanding that technology transformation is fundamentally a people transformation.



- **Emerging roles/jobs:** AI ethicists, cloud sustainability engineers, and cybersecurity risk analysts are expected to see rapid growth. The rise of agentic AI could lead to new roles focused on the management, training, and collaboration with AI agents. While some roles, like prompt engineers, might evolve, AI expertise will remain relevant. There's a growing need for professionals with interdisciplinary skills who can connect knowledge across different technologies and industries, driven by technological convergence. AI architecture and the orchestration of functionalities will become more important as AI becomes deeply integrated into development processes and IT operations.
- **Geographic recruitment trends:** Tech professionals are increasingly flocking to specific regions based on job opportunities, cost of living, quality of life, and the presence of major tech hubs. Here are some key recruitment trends by region:



NORTH AMERICA

- **Silicon Valley (San Francisco Bay Area, CA):** Still a major tech hub, but rising costs and remote work trends have led some professionals to seek alternatives.
- **Austin, Texas:** A booming tech city due to its lower taxes, strong startup ecosystem, and the presence of companies like Tesla, Apple, and Oracle.
- **Miami, Florida:** Gaining traction as a fintech and crypto hub, attracting remote workers and entrepreneurs.
- **Seattle, Washington:** A stronghold for cloud computing and AI talent with companies like Amazon and Microsoft.
- **New York City:** A financial and fintech powerhouse, still attracting top software engineers and AI specialists.
- **Toronto, Canada:** A growing AI and machine learning hub, benefiting from Canada's immigration-friendly policies.



EUROPE

- **London, UK:** A major fintech and AI hub, still attracting talent despite Brexit.
- **Berlin, Germany:** A hotspot for startups and tech innovation, known for its affordability compared to other Western European capitals.
- **Amsterdam, Netherlands:** A popular choice for expats due to its strong tech ecosystem and high quality of life.
- **Dublin, Ireland:** Home to European HQs of Google, Meta, and Microsoft, attracting many professionals in cloud computing and cybersecurity.
- **Paris, France:** Increasing investments in AI and deep tech, drawing both startups and established players.
- **Lisbon, Portugal:** Emerging as a remote work and startup hub, favored by digital nomads.
- **Madrid, Spain:** Our very own capital has recently seen the disembark of some younger Tech firms hungry for talent.

ASIA-PACIFIC

- **Singapore:** A major fintech and AI hub with strong government incentives for tech companies.
- **Bangalore, India:** Often called the “Silicon Valley of India,” it continues to dominate in software development and IT services.
- **Shenzhen, China:** The hardware and manufacturing capital, home to companies like Huawei and Tencent.
- **Seoul, South Korea:** A growing AI and gaming hub with major players like Samsung and Naver.
- **Tokyo, Japan:** A stronghold for robotics, AI, and automation.

LATIN AMERICA

- **São Paulo, Brazil:** The largest tech ecosystem in Latin America, with a strong fintech and e-commerce presence.
- **Mexico City, Mexico:** A rising tech hub with increasing VC funding and startup activity.
- **Buenos Aires, Argentina:** A hotspot for software development talent, especially in blockchain and AI.

MIDDLE EAST & AFRICA

- **Dubai, UAE:** A rising AI and blockchain hub with strong government support.
- **Tel Aviv, Israel:** A global leader in cybersecurity and AI.
- **Cape Town & Johannesburg, South Africa:** Emerging startup ecosystems, particularly in fintech.



Trends Driving Regional Shifts

- **Remote & Hybrid Work:** Many professionals are leaving expensive cities like San Francisco and New York for lower-cost locations.
- **Government Incentives:** Countries like Portugal, Canada, and the UAE offer visas and tax breaks to attract tech talent.
- **Startup Growth:** Cities like Berlin, Austin, and Bangalore are thriving due to strong startup ecosystems.
- **Fintech & AI Hubs:** London, Singapore, and Tel Aviv are drawing AI and fintech experts due to massive investment in these sectors.



Recruitment Timelines by Industry

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A breakdown of hiring cycles, recruitment peak periods, and differences by region.

- **Recruitment seasonality:** Generally, for Tech, peak hiring periods occur in Q1 and Q3, aligning with business planning and academic calendars. Many Tech companies close their fiscal year in June, so they will hire over the summer and at the start of the new year.
- **Hiring process duration:** On average, hiring takes 2-4 weeks, with some processes for more senior/technical roles requiring more extensive evaluation and thus lasting longer.
- **Internship vs. full-time recruitment:** In spite of what was mentioned in the first bullet point, recruitment in the tech sector is likely to be a continuous effort throughout the year, with potentially extended hiring processes for highly specialized roles. It does not typically discriminate between internships and full-time roles. Summer/seasonal internships are rare within the sector, tech internships typically last around 6 months and are considered diving boards into the company.
- **Regional recruitment variations:** Recruitment timelines in the tech sector vary by region due to cultural, economic, and regulatory factors:
 - **United States:** Hiring is fast-paced, especially in startups and big tech. Peak recruitment seasons are early in the year (January–April) and late summer (August–October). Many companies conduct rolling hiring year-round, especially for software roles.
 - **Europe:** Slower, structured hiring processes due to labor laws. Peak hiring occurs in early spring (February–May) and post-summer (September–November). Notice periods for employees are longer, delaying hiring cycles.
 - **Asia:** Varies widely, China's hiring aligns with graduation cycles (May–July) and post-Chinese New Year (February–March). India's major recruitment drives are in the fall (July–November) for fresh grads, while experienced hiring happens year-round. Southeast Asia follows flexible hiring, driven by tech expansion.

Alumni Insights and Success Stories

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An overview of alumni working in this sector, their career trajectories, and their engagement with IEU.

- **Alumni data:** As of present, we have around 15000 alumni working in the Tech sector, which provides an incredible network for our students to draw inspiration from and be able to leverage. Out of our 2024 graduates, close to 15% have gone into the Tech sector, making us the third option amongst our students. This most likely has to do with the attractiveness of the sector in terms of retribution, dynamism and growth prospects.
- **Mentorship and networking opportunities:** We are lucky to count on our alumni's support in facilitating new graduates' accessibility to the world of Tech. Throughout the year, we host different informative sessions and trainings conducted by our alumni, who are able to recount in the first person what it is like to work at a Tech giant and, especially, what it takes to make it through the process. In a competitive sector like Tech, with high volumes of applications, referrals are key to being noticed by the recruitment team, and our alumni play an instrumental role in facilitating these.



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