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Technology and telecoms outlook 2024

AI in the real world

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AI in the real world

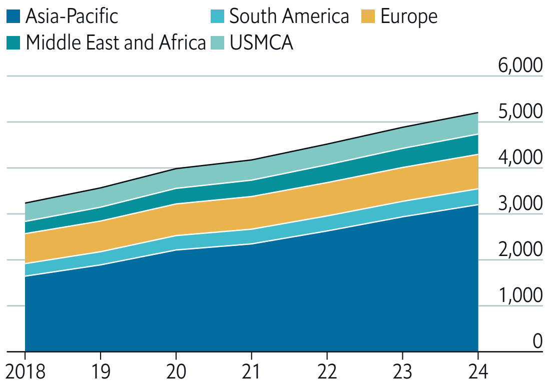
Artificial intelligence (AI) will be at the centre of technology investment in 2024, but will encounter geopolitical and regulatory challenges.

- AI investment will increase in 2024 as more companies go beyond experimentation and start to discover real use cases. However, the primary impact of the technology is likely to be on politics, particularly in the US and other countries facing elections.
- The leading semiconductor companies will continue to diversify in the West, owing to geopolitical concerns and the large government subsidies available.
- Regulators will scurry to keep up with developments in AI, with the EU trying to carve out a leading role in shaping the technology. Other areas, such as data, privacy and competition, will also be under scrutiny.
- The geopolitical battle over technology between the US and China will continue, and the ramifications will affect many other countries.

Adoption of generative AI will accelerate, but the biggest impact will be political

The launch of ChatGPT, an artificial intelligence (AI)-powered language model, in November 2022 democratised AI and made it easy for most people to use. This has led to huge investments in generative AI as multiple tech companies, whether start-ups or big tech, look to take advantage of the boom. These investments will continue in 2024, with Meta (US) among the companies rolling out more data centres and servers to meet AI demand.

The number of internet users globally will top five billion*
(internet users, m)

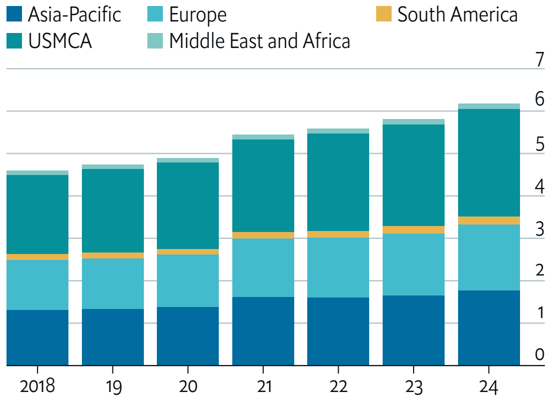


Sources: ITU; EIU. *60 biggest economies only.

However, we expect the focus for investors to shift towards profitability and real use cases for the technology. Tech companies have spent heavily since the pandemic began, and there will be pressure for these investments to start becoming profitable during the year. For non-tech companies, greater AI adoption requires the technology to fit a clear business need. AI is a critical part of any digital transformation strategy, but businesses will need to understand why they want to use the technology rather than using it for its own sake.

This is why we expect AI's biggest impact in the short-term to be on politics rather than business. With elections planned in countries including the US, the EU, India and Taiwan in 2024, generative AI, and the fake content that it can produce (text, images, audio and video) will drive misinformation and erode confidence in the political process, undermining its legitimacy. There is already a bipartisan push in the US to ban fake AI-generated political ads ahead of November's presidential election, for fear that the social media manipulation used in 2016's election will become supercharged. Any substantial election interference this time around would impact broader trust in AI.

Asian investment will drive IT spending growth*
(US$ trn)



Sources: IDC; EIU. *60 biggest economies only.

Demand for semiconductors will soften, despite AI expansion

Investment in AI will drive demand for semiconductors in 2024, but this will not be enough to offset the softness of the overall consumer electronics industry. Smartphone sales will continue to be flat at best, and the same is expected for personal computers, laptops and tablets. High-performance computing, which includes data centres, will perform better, as will technology in the automotive sector as the market for electric vehicles continues to be strong.

The chip market could also benefit from Chinese demand for older semiconductors and equipment as Chinese manufacturers look to purchase enough inventory while facing potential new US export controls. A similar trend happened after 2018, when US and other bans on equipment from Huawei (China) contributed to the pandemic chip shortage of 2020.

Semiconductor production will continue to diversify as large subsidies convince major manufacturers to build fabs in the US or Europe. TSMC (Taiwan), Intel (US) and others have already announced plans in the US, Germany and France, and more will be expected to take advantage of the combined US$100bn offered in the US CHIPS and Science Act and the European Chips Act. However, it will take time before this new production hits the market (not before 2027 in Germany, for instance), and the output will be limited in terms of capacity and innovation (chip size) compared with the semiconductors already produced in Asia.

Regulators, led by the EU, will tackle AI and other technologies

The multiple risks (political, social and economic) associated with AI have led policymakers to move forward with regulation. The EU is at the forefront through its draft AI Act, which takes a risk-based approach to the technology, and the AI Liability Directive, which would put the burden of proof on companies and not users. But the rapid development of generative AI has already led to a rewrite of the AI Act, showing the difficulties of keeping up with innovation. Moreover, the current draft makes all foundation models high risk, requiring monitoring and registration before entering the market, and could prove restrictive.

Other EU regulations, such as those on data (the Data Act and Data Governance Act), privacy (the General Data Protection Regulation) and competition (the Digital Markets Act—DMA), will also have an impact on the evolution of the AI market. The DMA, with the Digital Services Act (DSA), will become fully enforceable in 2024, giving regulators a greater say in the internet market, especially for the largest companies, which will be under greater scrutiny. Enforcement of regulation for all technologies, including AI, will be critical in 2024.

The US also agreed voluntary guidelines with leading AI companies over the summer of 2023, but this is a self-regulation model with little to no enforcement mechanism. As with other tech regulation, a divided Congress and political disagreements between the Republicans and Democrats will bar the approval of most legislation. This will give the courts, including the Supreme Court, as well as individual states an outsized importance in regulating the tech industry.

Chinese rules on AI focused first on the transparency of recommendation algorithms, whereas its planned rules on generative AI (drafted in April 2023) focus on responsibility and accuracy. AI is a strategic priority for the country, and a strict clampdown is unlikely in 2024. But socialist values are always at the forefront, with the Communist Party's main objective being to keep control and prevent alternative sources of power.

Geopolitics will continue to affect technology

The tech battle will continue between the US and China in areas including AI, chips and quantum technologies. Current export controls and restrictions, in both the US and China, are open-ended to ensure that the market is not too disrupted. But with the US using national security as its main rationale, it is unclear how far it is willing to go in terms of restrictions. It is also unclear how far the Chinese will retaliate, and how other countries will react.

The US has shown clear leadership over its allies in Europe and Asia. It has, for example, encouraged the EU to change its stance on restricting investment from Huawei: products from the Chinese telecoms infrastructure provider may be banned across the EU in 2024. But European and Asian countries also see China as a key market that they do not wish to lose access to, and they might not want to further antagonise the country through greater restrictions. Other countries will continue to play the two leaders off, in line with their own strategic interests and their budgets.

What to watch

Apple Vision Pro. Having been announced in June 2023, Apple's first metaverse headset, the Vision Pro, will become available to consumers in early 2024. Priced at US$3,499, it is a premium product compared with some of its rivals, such as the US$499.99 Meta Quest 3. The metaverse has lost some of its shine in recent months as attention has turned to AI, and we do not expect the device to have a high impact in the short term. However, the longer-term opportunities should not be discounted.

Cybersecurity and resilience. All EU member states must implement the Network and Information Security (NIS) Directive by October 17th 2024. Focusing on cybersecurity, the NIS Directive harmonises rules for companies and law enforcers, as well as widening the number of essential sectors from 19 to 35. Companies in these sectors will have more rules to comply with, including reporting rules. The NIS Directive also allows the regulator to impose higher fines, reaching as high as €20m (US$21.5m) or 4% of a company's turnover in the most severe cases.

Enforcement of other tech regulations. The DSA and DMA will become fully enforceable in the EU in 2024, and we expect the first lawsuits under these regulations to be brought. In the US, several court cases against big tech companies will either start in 2024 (including the Department of Justice's lawsuit over Google's ad-tech business) or come to a conclusion (such as the Federal Trade Commission's case against Meta). These developments will determine whether current rules are sufficient for regulators to reshape the market, or whether the US needs the legislative branch to introduce new rules.

Satellite internet. US-based Starlink and UK-based OneWeb will continue to expand their partnerships with telecoms companies, especially in Asia. In India, there will be strong competition, as Starlink and OneWeb will be joined by two domestic companies, Jio and Tata, as well as Canada's Telesat, in receiving licences to offer satellite services. In Australia, Starlink and OneWeb have partnered with operators to start offering their services outside of the state-run National Broadband Network.

EIU's weather forecast for tech and telecoms businesses in 2024

Source: EIU.

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