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The Artificial Intelligence Ownership Gap

Europe's AI dependence runs deep and could limit productivity gains.

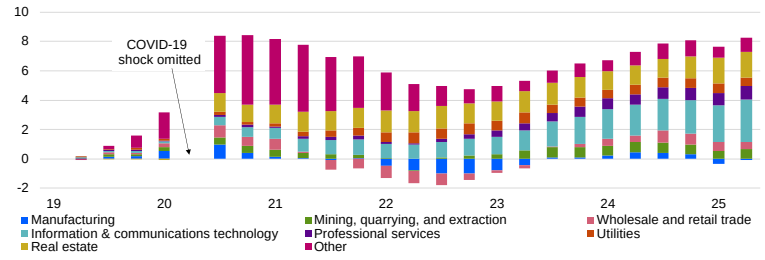
- Europe's AI sector is dependent on U.S. funding and frontier tools, and increasingly on Chinese open-source models, as well as the Asian hardware to run them all.
- Adoption determines whether productivity increases, while ownership determines how much of that increase Europe actually keeps. On both counts, European capital dominates only the smallest funding rounds, ceding the ownership of scaled-up firms to U.S. funds.
- The risks to this outlook are not symmetric. Gains could outperform if intensive use spreads faster, but downside risks are larger, and access itself is not assured, given the precedent for unilateral suspension.

The introduction of artificial intelligence in Europe was seen as a chance to reenergise European competitiveness. AI research and adoption in the region are increasing, yet the companies driving AI growth and building the infrastructure are located almost entirely outside Europe. No European firm ranks among the world's top 20 AI developers. This leaves Europe's AI sector dependent on U.S. funding and frontier tools, and increasingly on Chinese open-source models, as well as the Asian hardware to run them all.

Most prominently, Europe faces a building gap. The main actor in the field, Paris-based Mistral, is valued at around €20 billion and targets about $1 billion in revenue in 2026, compared with OpenAI's valuation of approximately $850 billion. The dependence extends to the physical layer. The data centers and advanced chips that train and run these models are concentrated in the U.S. and East Asia, leaving Europe reliant on foreign infrastructure and foreign models.

ICT Is the Key Reason Behind the Divergence in Productivity

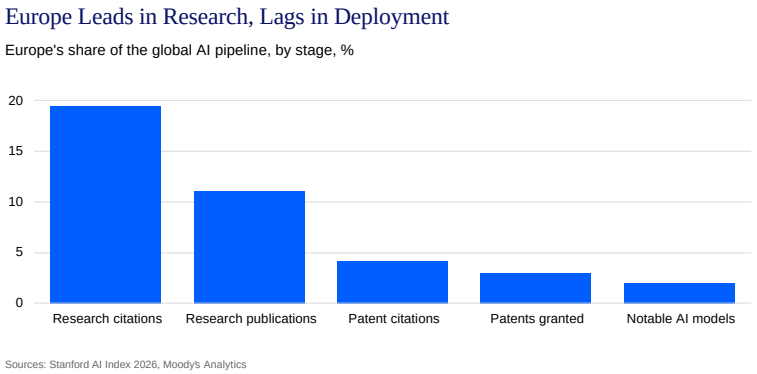
U.S. overperformance vs. euro zone, contributions to productivity, ppts and 2019Q1=0



Sources: Eurostat, BEA, Moody's Analytics

Europe's strength lies in research and consumption. The region produces close to 20% of the world's AI research citations, second only to China, but it accounts for just 2% of the models actually deployed. Europe is also a heavy consumer. According to the latest Eurostat enterprise survey, the share of EU firms using at least one AI technology has roughly doubled in two years, to about 20% in 2025. However, adoption is starkly uneven, ranging from 42% of firms in Denmark to 5% in Romania.

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What's more, it is depth of adoption, rather than breadth, that really moves the needle on productivity. Firms that embed generative AI in a single business function report around 25% higher total factor productivity, while those using it across two or more functions report gains close to 30%. The increase comes from integration into core processes rather than occasional use. On that measure, Europe lags. The European Central Bank finds that more than two-thirds of firms in the euro area report employees using AI in some form, yet only about 7% use it intensively. That shallow adoption gap is where Europe's productivity shortfall begins.

Owning less, depending more

Funding also falls short. European capital dominates the small early rounds, about three-quarters of deals below €500,000. But this share falls to only around a quarter of rounds above €25 million, leading to an ownership gap as U.S. funds do the scaling. Late-stage capital ultimately determines who owns a company once it matters, and by that stage, the decisive payments are U.S. payments. Control changes hands precisely at the point where value is created.

This creates a dependence problem. European firms are forced to rely on frontier models they didn't build and don't control. That reliance was highlighted when a U.S. export-control directive forced Anthropic to withdraw its most advanced models from users outside the U.S., cutting off European firms overnight. European firms had no say in a decision made entirely abroad, a reminder that access to frontier AI can be pulled unilaterally and that the companies providing it can be treated as strategic assets by their home governments. That gap between how much Europe uses AI and how little it controls is the real exposure. The dependence extends beyond models to the infrastructure and chips underneath them, and to the trade and export policies that the U.S. and China set for both, leaving Europe vulnerable.

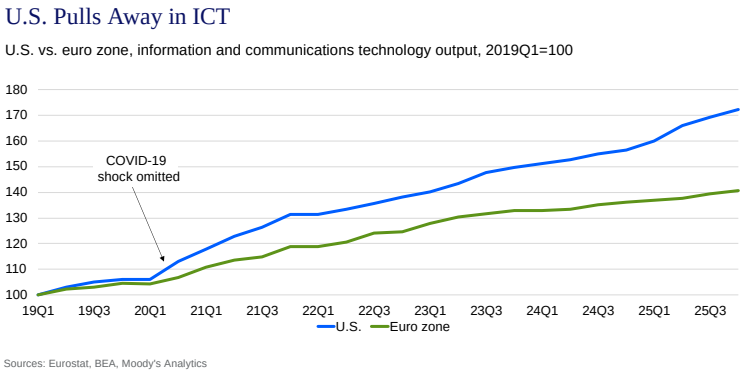
To an extent, this dependence runs both ways. Through the Digital Markets Act and Digital Services Act—EU rules imposing competition and content obligations on large online platforms—Europe retains some leverage over firms like Google, Meta, and Microsoft. And the sheer size of the European market gives that leverage teeth. Decoupling from the U.S. is not costless for either side. The harder constraint for Europe is that it can't pull away from both the U.S. and China simultaneously, making full independence unaffordable and selective decoupling the only realistic path: thoroughly building sovereign capacity, diversifying inputs, and using regulatory weight over foreign providers operating at scale. Although none of these ends the dependence, each makes that dependence harder to use as leverage.

Two constraints to productivity

How much productivity Europe gains from AI depends on both adoption and ownership. According to the European Investment Bank, AI has added an estimated 0.2 percentage point to 0.34 percentage point per year to European productivity growth from 2019 to 2025, a figure held down by the fact that adoption is occasional and rarely intense. But even if adoption does deepen, productivity gains would disproportionately flow to those who own the models and the infrastructure behind them. As a result, adoption determines whether productivity increases, while ownership determines how much of that increase Europe actually keeps.

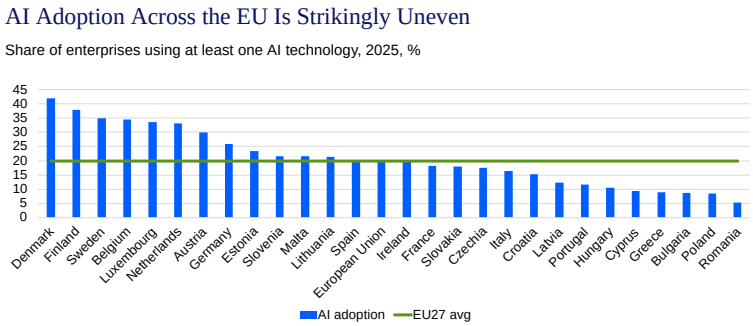
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How this plays out depends on three main aspects. First, how fast adoption deepens beyond today's 7% intensive-use tier, since productivity estimates depend on adoption speed. Second, whether Europe's sectoral mix shifts towards the industries estimated to deliver the largest productivity gains: finance, professional services, and information and communications technology. Because these sectors account for a larger share of value added in the U.S. than in the EU, modelled U.S. gains run higher for the same technology. That divergence is already visible. In ICT, real output has grown by 72% in the U.S. since 2019, compared with 41% in the euro area, a gap that has widened steadily.



Sources: Eurostat, BEA, Moody's Analytics

The third consideration is whether there is a shift towards European-owned models, infrastructure, and firms, so that the value AI creates accrues to European balance sheets rather than flowing out as licensing fees and cloud spend to foreign owners.



Sources: Eurostat, Moody's Analytics

Our baseline assumes none of these shifts occur quickly. Adoption depth tracks the 2019-2025 trend rather than faster-adoption cases, sectoral composition remains broadly as is, and ownership remains concentrated outside Europe.

Europe's structural ceiling

Given the sectoral divergence, productivity gains that do occur wouldn't be evenly distributed. OECD modelling puts the largest gains—0.4 percentage point to 1.3 percentage points a year—in the economies most specialised in AI-exposed services such as finance and ICT, mainly the U.S. and U.K. For other advanced economies, including the euro area's largest, projected gains are up to 50% smaller, reflecting weaker specialisation in those sectors.

Europe's disadvantage, in other words, is structural rather than behavioural. The sectoral mix sets the ceiling on productivity gains. Capturing the gains depends on which firms can integrate AI deeply. This favours larger firms that can afford the data infrastructure, training, and reorganisation required for deep usage. Given that Europe's economy is more heavily populated by small and micro firms, a larger share of the economy will fall below the threshold for gains. Adoption also runs deeper where capital and skills are more readily available, which is part of why adoption varies so drastically across the Continent. The economies best placed to benefit are those that combine the right sectors with the depth to use AI intensively, not just widely.

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On that basis, we expect AI's contribution to European productivity growth to sit at the low end of the predicted range, closer to 0.3 percentage point per year than to the 1.2-percentage point ceiling some sectoral models call for under faster adoption. Closing either constraint alone would not be enough. Faster adoption without ownership would mean larger payments abroad, and ownership without deeper adoption has nothing to capture. Until both move together, Europe's AI economy will keep generating returns it largely doesn't receive.

Downside risks dominate

The risks to this outlook are not symmetric. Gains could outperform if intensive use spreads faster than the realised trend implies, rising towards the upper end of the range. However, the downside risks are larger. The ownership gap could widen rather than close, so that stronger adoption merely raises the payments flowing abroad. Access itself is not assured, given the precedent for unilateral suspension. And Europe's structural constraints—a base dominated by small firms and limited skilled labour—could restrain adoption.

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