# McKinsey Global Institute

# McKinsey Global Institute: 2024 in charts

Here are some of the McKinsey Global Institute's favorite data visualizations from 2024.



In 2024, MGI delved into the defining components of the new era sweeping our world. We analyzed the changing geometry of global trade and provided a reality check on the physical challenges of the energy transition. We examined global productivity growth, the imperative to raise investment, and opportunities to close the productivity gap between large and small businesses. We also explored the evolving future of work, the race to deploy AI and adjust skills, and the challenges of tight labor markets. Building on our research on economic empowerment, we mapped out a broad "affordability agenda" that could alleviate some of the burden for lowincome households. Finally, we identified 18 industries likely to become arenas of competition that drive economies, well-being, and prosperity around the globe. The following data visualizations, grouped into our five core research themes, encapsulate some of our key findings over the past year.

# Global Connections

Exploring how flows of goods, services, people, capital, and ideas shape economies

#### The geometry of global trade is changing. Our

analysis of the geopolitical distance of trade found wide variation. From 2017 to 2023, China, Germany, and the United States reduced the geopolitical distance of their trade by 4 to 10 percent each. Over the same period, Brazil and India have traded more broadly across the geopolitical spectrum. However, the decline in the geopolitical distance of trade among major economies does not eliminate the possibility of a fragmentation scenario, in which trade between geopolitically distant economies collapses. Nearly 40 percent of trade in globally concentrated products-those for which three or fewer nations account for more than 90 percent of global exports-still occurs between geopolitically distant economies. These products are difficult to substitute, at least in the short to medium term.

#### Many large economies have trade relationships with partners that are relatively different from them in geopolitical terms.



#### Goods trade relationships, 2021, and UN General Assembly voting patterns, 2005-22

Source: Geopolitics and the Geometry of Global Trade, McKinsey Global Institute, January 2024

# Resources of the World

Building, powering, and feeding the world sustainably

Creating a low-emissions energy system while expanding energy access globally requires solving "the hard stuff." Today, about 10 percent of the technologies needed to meet global commitments to reduce emissions by 2050 have been deployed. For the remaining 90 percent, we identified 25 physical challenges, "the hard stuff," linked to the development and deployment of low-emissions technologies and the infrastructure and supply chains they need to operate and accelerate deployment. Abating about half of the energyrelated emissions depends on addressing the most demanding physical challenges, such as managing variable renewables like wind and solar in a low-emissions power system and developing new low-emissions processes to produce industrial materials such as steel and cement. CEOs and policy makers can navigate these tough challenges by playing offense to capture viable opportunities today, anticipating and addressing bottlenecks, through a blend of innovation and system reconfiguration.

### Twenty-five physical challenges would need to be addressed for the energy transition to succeed.



Source: The hard stuff: Navigating the physical realities of the energy transition, McKinsey Global Institute, August 2024

# Productivity & Prosperity

Creating and harnessing the world's assets most productively

### Investing in productivity growth can spur the economic growth that supports higher

living standards. Productivity in the median economy has jumped sixfold in the past guarter century, but there is variation. Thirty emerging economies, home to 3.6 billion people, are in the "fast lane" of improvement. If they maintained their pace, they would converge to advancedeconomy productivity levels within roughly the next guarter century. "Middle lane" economies would take more than a hundred years, while "slow lane" ones would never converge. At the same time, advanced-economy productivity has slowed by about one percentage point since the global financial crisis. Directed investment in areas such as digitization, automation, and artificial intelligence could fuel new waves of productivity growth in advanced and emerging economies, which is the best way to continue improving well-being and prosperity around the globe.

#### Fast-lane regions carve the path of the productivity frontier.

Productivity level and productivity growth per employee



Source: Investing in productivity growth, McKinsey Global Institute, March 2024

### A microscope on small businesses reveals opportunities to enhance productivity.

Micro-, small and medium-size enterprises, or MSMEs, are the lifeblood of the global economy. They account for two-thirds of business employment in advanced economies and almost four-fifths in emerging economies, as well as half of all value added. Improving MSME productivity to match top-quartile levels relative to large companies is equivalent to 5 percent of GDP in advanced economies and 10 percent in emerging economies.

## MSME productivity lags behind that of larger firms across countries, with a wider gap in emerging economies.

Productivity, value added per worker, \$ thousand (PPP), countries ordered by overall MSME productivity



Source: A microscope on small businesses: Spotting opportunities to boost productivity, McKinsey Global Institute, May 2024

#### Accelerating competitiveness can close Europe's prosperity gap in the new era.

Shoring up the region's competitiveness across seven arenas ranging from energy to technology and supply chains could increase value added by €500 billion to €1 trillion by 2030, which is three to six times the incremental annual investment needed to achieve net zero. Closing this gap will enable Europe to grow and thrive while preserving its unrivaled model for sustainability and inclusion.

#### European corporations lag on scale and performance.

#### Public companies with revenue of >\$1 billion in Europe 30 vs US

Europe 30 🔳 US



Note: Europe 30 includes the European Union plus Norway, Switzerland, and the United Kingdom. Source: "Accelerating Europe: Competitiveness for a new era," McKinsey Global Institute, January 2024

Achieving economic empowerment would allow a quarter billion people around the world to live better lives. In wealthier countries, higher costs and inequality prevent about 20 percent of the population on average from crossing the "empowerment line," the threshold above the international poverty line at which people can afford a standard basket of essential goods and services and begin to save. Essentials generally become more expensive as countries become wealthier, and these cost increases tend to match or exceed income gains. While affordability is influenced by policy and the delivery of public services, the private sector has scope to act by easing cost burdens for its own workforces and across its value chains and by developing affordable offerings in housing, energy, food, healthcare, and communication.

#### Better empowerment outcomes and higher incomes tend to go hand in hand, but the effect plateaus after a certain point.



Source: "A better life everyone can afford: Lifting a quarter billion people to economic empowerment," McKinsey Global Institute, May 2024

We used investment to take Europe's pulse and found it low. Insufficient investment compromises Europe's competitiveness, way of life, and standing in the world. US investment in intellectual property and equipment is double that of Europe per capita, and Europe's pool of venture capital assets is just one-quarter of the US total. Today, returns on invested capital are four percentage points higher in the United States than in Europe. Reducing barriers to investment, such as energy costs, talent shortages, business and labor market regulation, and geo- and macroeconomic uncertainty, can give Europe a pulse on its competitiveness and help attract capital.

## Large European companies spend less than US counterparts, and the gap has grown from about 35 percent to about 80 percent in just seven years.

Capital expenditure and R&D spending of large European and US corporates, 2010-22 (2022 prices)



Note: Europe 30 includes the European Union plus Norway, Switzerland, and the United Kingdom. Source: "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 2024

# Human Potential

Maximizing and achieving the potential of human talent

#### Charting the challenge of tight labor markets in advanced economies reveals a long-term trend. Labor markets in advanced economies today are among the tightest in two decades,

a long-term trend that may continue as workforces age. We estimate that GDP in 2023 could have been 0.5 to 1.5 percent higher across the world's eight largest economies if employers had been able to fill their excess job vacancies. Companies and economies need to find new ways to expand the workforce if productivity is to continue to grow, with steps like more flexible work, tailored migration programs, and initiatives to keep seniors at work longer and attract more women into the workforce.

#### The excess supply of labor has dwindled.

#### Surplus workers as a share of labor demand, %







Source: "Help wanted: Charting the challenge of tight labor markets in advanced economies," McKinsey Global Institute, June 2024

#### A race is on to deploy AI and new skills in Europe and beyond, portending a new future

of work. Al can address changes in employment demand linked to efforts to achieve net-zero emissions, an aging workforce, and growth in e-commerce, but it also will require new skills. In a midpoint adoption scenario accelerated by generative AI, up to 30 percent of current hours worked could be automated by 2030. Accelerated technology adoption coupled with proactive worker redeployment could help Europe increase productivity by as much as 3.0 percent annually to 2030, compared to the rate of about 0.3 percent each year at present. Europe and the United States could require roughly 12 million occupational transitions. Surveyed executives in those regions expressed a need for skills they report are in short supply, such as advanced IT and data analytics, as well as for critical thinking, creativity, and teaching and training.

#### Europe may need faster occupational transitions relative to the past, while the United States could return to its prepandemic pace.

#### Occupational shifts, 2016–19 and 2019–22, and anticipated occupational transitions, 2022–30, slower, faster/midpoint, yearly average



<ul> <li>Agriculture</li> </ul>	<ul> <li>Agriculture</li> </ul>	<ul> <li>Office support</li> </ul>	<ul> <li>Office support</li> </ul>	<ul> <li>Food services</li> </ul>	<ul> <li>Office support</li> </ul>	
Property     maintenance	Property     maintenance	Customer service and sales	<ul> <li>Production work</li> </ul>	Customer service	Customer service	
			<ul> <li>Customer service</li> </ul>	and sales	and sales	
<ul> <li>Community services</li> </ul>	Community services	<ul> <li>Production work</li> </ul>	and sales	<ul> <li>Office support</li> </ul>	<ul> <li>Production work</li> </ul>	
		<ul> <li>Food services</li> </ul>	<ul> <li>Mechanical installation and repair</li> </ul>	<ul> <li>Production work</li> </ul>	<ul> <li>Food services</li> </ul>	
<ul> <li>Production work</li> </ul>	<ul> <li>Production work</li> </ul>	<ul> <li>Mechanical</li> </ul>		<ul> <li>STEM professionals</li> </ul>	<ul> <li>Business or legal professionals</li> </ul>	
<ul> <li>Office support</li> </ul>	<ul> <li>Customer service and sales</li> </ul>	installation and repair				
			<ul> <li>Builders</li> </ul>			

Source: A new future of work: The race to deploy Al and raise skills in Europe and beyond, McKinsey Global Institute, May 2024

# Technology & Markets of the Future

Exploring the next big arenas of value and competition

We've identified the next big arenas of competition that will drive economic growth in the new era. These 18 arenas, unique categories of industries distinguished by high growth and dynamism, could reshape the global economy, generating \$29 trillion to \$48 trillion in revenues by 2040. These arenas, which include AI software and services, cybersecurity, air mobility, obesity drugs, and industrial and consumer biotechnology, could increase as a share of global GDP from 4 percent today to 10 to 16 percent by 2040. Companies in these arenas exhibit three characteristics that escalate competition: cutting-edge technologies, large investments, and large, growing markets. In combination, these characteristics lead to market share gains and a product quality edge that further set these arenas apart.

# The 18 potential arenas of tomorrow could generate \$29 trillion to \$48 trillion in revenues and \$2 trillion to \$6 trillion in profits.

18 potential arenas of tomorrow, by 2040 revenue estimate, \$ billion	Revenue, 2022 •	2040 estimate	(CAGR, Pro 2022-40, %) es (pr		o <b>fit, 2040</b> timate, \$ billion ofit margin, %)	
E-commerce	4,000		← 14,000- ← 20,000 (7-9) ←		280– 1,000 (2–5)	
Al software and services	• 85	1,5	00–4,600 –25)	• 2 (1	30–920 5–20)	
Cloud services	• 220	1,6 (12	00–3,400 –17)	• 10 (1	60-510 0-15)	
Electric vehicles	450	2,5	500–3,200 1–12)	• 10 (4	00-320 I-10)	
Digital advertisements	520	2,1	00–2,900 -10)	) (1	20–580 5–20)	
Semiconductors	630	1,7 (6-	00–2,400 -8)	<b>)</b> 3 (2	40–600 20–25)	
Shared autonomous vehicles	n/a	610	0–2,300	• 2 (4	0–460 1–20)	
Space	300	96	0–1,600 (7–10)	• 5	0–160 (5–10)	
Cybersecurity	• 160	59	0-1,200 (8-12)	۰ (	0–240 (15–20	
Batteries	• 98	810	0–1,100 (12–14)	• 4	0–110 (5–10)	
Modular construction	180	54	0–1,100 (6–10)	• 2	0-220 (4-20)	
Streaming video	• 160	510	0–1,000 (6–11)	• 5	0–150 (10–15)	
Video games	230	55	0-910 (5-8)	. 8	0–180 (15–20)	
Robotics	• 21	190	0–910 (13–23)	• 2	0–180 (10–20)	
Industrial and consumer biotech	• 140	34	0-900 (5-11)	• 10	0-270 (4-30)	
Future air mobility	n/a	• 75	-340	• 10	0-70 (10-20)	
Drugs for obesity and related conditio	<b>ns</b> • 24	120	0–280 (9–15)	• 3	0–100 (25–35	
Nuclear fission power plants	• 18	• 65	-150 (7-13)	• 5	-50 (5-30)	
Total	7,250	)+ 29	,000–48,000 (8–11)	1,	900-6,100	

Source: The next big arenas of competition, McKinsey Global Institute, October 2024

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