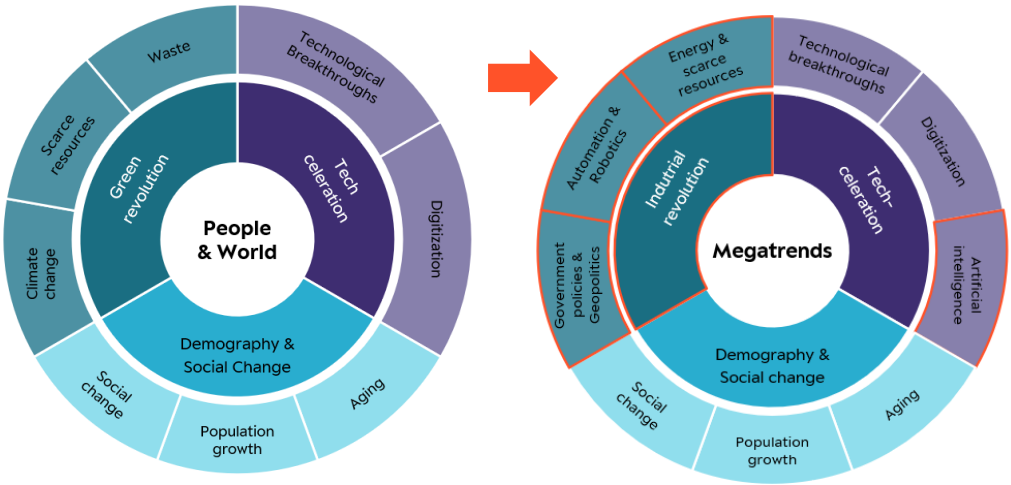
22.09.2025

Megatrends in our portfolios – an update on structural growth drivers

- Megatrends and structural growth trends are a central component of our bottom-up investment approach and, for us, an essential requirement for achieving long-term performance in the stock market.
- As key megatrends have changed in recent years, we are adjusting our framework.
- Artificial intelligence is becoming a separate sub-trend within Techceleration.
- To reflect the reorganization of the global industrial landscape, we have renamed "Green Revolution" to "Industrial Revolution". Government policies & Geopolitics, the future of energy & scarce resources, and automation & robotics will become new sub-trends.

Megatrends and structural growth trends are an important component of our bottom-up investment approach. We believe that a good understanding of structural developments in the underlying end markets is essential for our companies to achieve long-term performance. Emerging profit pools provide some companies with consistent growth tailwinds, while others experience constant headwinds. As quality growth investors, we want to invest in companies that benefit from structural growth and avoid those that are struggling with declining growth.

We highlighted the relevant megatrends in more detail in our paper "*Berenberg Insights – The structural growth tailwinds at our backs*" in May 2021. The fact that Megatrends can persist for long periods of 5-10 years, sometimes even longer, makes them noteworthy. However, the trends are by no means static, which is why we want to describe an adjustment to the megatrends in this issue. We see the most significant changes in the following areas:



Source: Berenberg, left `21 Structural growth trends, new megatrends on the right; changes marked in orange.

Through **Insights**, we provide you with a better understanding of our investment philosophy and thinking.

Techceleration – Artificial Intelligence

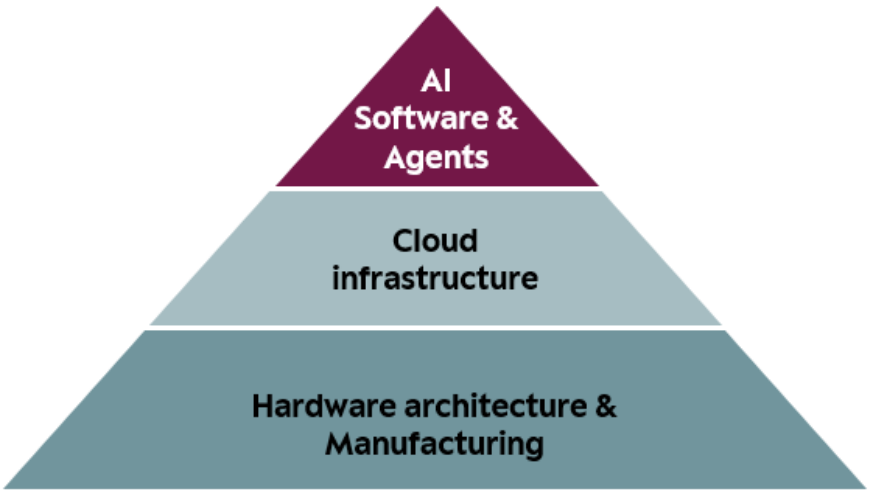
Techceleration has always been an important megatrend for our portfolios, reflected in a number of sectors. Within the subcategory "Technological Breakthroughs", no trend has been more relevant in recent years than artificial intelligence (AI). We have therefore created a separate category for "Artificial Intelligence" within Techceleration.

AI is an important megatrend that is reflected in a large number of stocks in our portfolios.

As described in some of our recent publications, we have been investing in AI companies for many years.[1] Our investment covers all levels of value creation that we see with regard to AI. These include:

- New hardware architectures and demand for high-performance chips
- Investments in semiconductor manufacturing
- Growth of cloud infrastructure
- Development of AI-powered software and AI agents

Figure 01: Value creation levels in artificial intelligence (AI)



Source: Berenberg.

New hardware development and demand for high-performance chips

Since the early days of the semiconductor industry, processor performance has been increasing thanks to ever smaller transistors (known as Moore's Law) and specialized architectures. Since the 2010s, specialized processors (known as graphics processing units, or GPUs) have been increasingly used, which are specifically optimized for parallel high-performance computing. **NVIDIA** plays a leading role in this context. The company's latest "Hopper" and "Blackwell" architectures have set new standards in performance over the last few years and made AI training and the wide-scale development of language models possible in the first place.

With its latest Blackwell architecture, Nvidia remains the leading GPU provider.

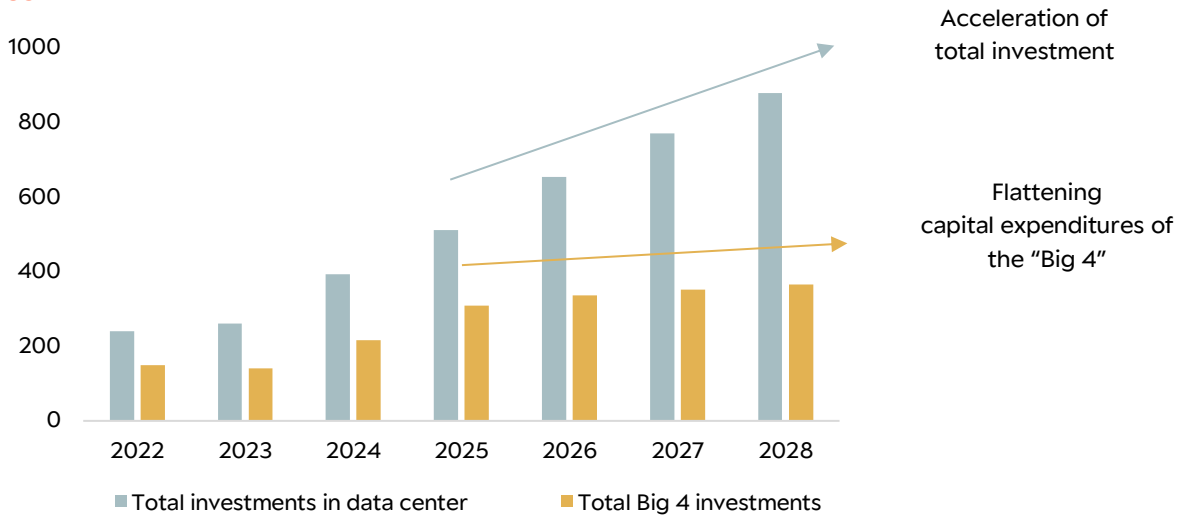
Compared to simple chatbots, modern reasoning AI systems often require hundreds to thousands of times more computing power. In the past, this computing power was primarily provided by large cloud providers. Over the last 24 months, new players have entered the scene. These include large-scale infrastructure projects such as "Stargate" and Elon Musk's "Colossus," as well as various government programs in Europe and

The demand for high-performance chips is diverse, ranging from cloud providers to internet companies and sovereign clouds[2].

[1] See "*Berenberg Spotlight – Investing in AI beyond the hype*" from June 2024 and "Berenberg Spotlight – The next growth phase of artificial intelligence has begun: New applications and agents are the drivers" published in May 2025.
[2] Development and use of artificial intelligence by a sovereign actor, especially in the context of government projects, with a focus on technological autonomy.

Asia, which are driving the global expansion of computing capacity.[3] All leading cloud providers are also working on their own specialized processors (known as "custom silicon"), which are tailored precisely to their use cases and developed in collaboration with co-design partner **Broadcom**. As Figure 02 illustrates, demand for high-performance chips is increasing steadily as a result of the developments described above and is no longer determined solely by the leading cloud providers.

Figure 02: Growth in AI investment is increasingly driven by new players – in billion USD



Source: Total investments in data centers according to Dell'Oro. "Big 4" investments based on Bloomberg consensus (also includes investments outside of data centers), July 2025.

Investments in semiconductor manufacturing

TSMC dominates high-end AI chip manufacturing.

The manufacture of high-performance chips is a complex process that is concentrated among a small number of specialized production and equipment suppliers. **TSMC** has established a de facto monopoly in the manufacture of high-end AI chips and is benefiting from delays at Intel, which are expected to hold up its entry into AI chip manufacturing until at least 2027/28.

TSMC's new N2 technology node accelerates investment in the semiconductor industry.

TSMC's new 2 nm technology node (N2) is scheduled to go into series production at the end of this year. The high capacity-utilization is likely to boost the willingness to invest of semiconductor equipment suppliers **ASML, ASM International (ASMI)**, and **BE Semiconductor Industries (Besi)**; all three have dominant market positions in their segments. **ASML** holds a monopoly in lithography. The switch to N2 requires additional latest-generation extreme ultraviolet (EUV) equipment. **ASMI** is a leader in atomic layer deposition (ALD) systems. ALD is a key technology for gate-all-around (GAA) transistor architecture, which enables lower power consumption, higher performance, and lower heat generation. **Besi** dominates the market for hybrid bonding equipment. This technology connects different chip components in three-dimensional stacks, which creates performance, efficiency, and cost advantages for increasingly larger and more complex AI chips.

Overall, the closely linked technological advances at TSMC and the equipment oligopolies of ASML and Besi are likely to reinforce each other until at least 2027/28.

[3] For details, see our publication "*The next phase of growth for artificial intelligence has begun*" from July 2025.

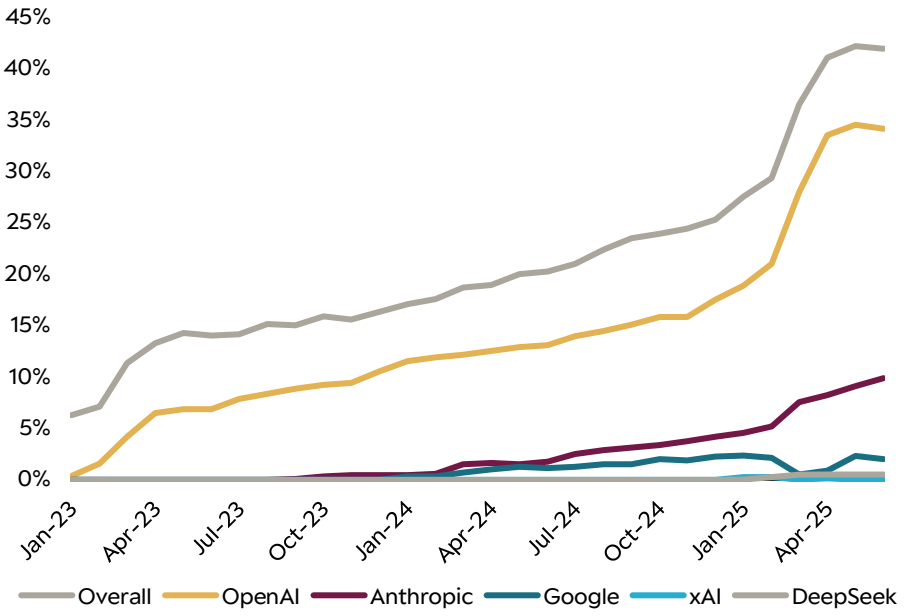
Growth in cloud infrastructure

Cloud providers are among the main beneficiaries of the increasing use of AI applications.

The computing power for AI applications is largely situated in the cloud. The reasons for this are faster scalability, lower upfront costs, easier access to high-performance chips, and a wide range of developer tools by cloud providers. Most AI applications are also based on leading large language models (LLMs), which can be accessed via browsers and interfaces (APIs). According to Gartner, by 2026, over 80% of companies will use GenAI APIs/models or run GenAI apps productively. Based on these estimates, the proportion of companies using GenAI applications should increase more than 15-fold over a period of just three years.[4]

Additional cloud growth drivers include AI applications for consumers, for example in the form of AI chatbots such as ChatGPT, Claude, and Gemini. In summary, leading cloud providers like **Microsoft Azure, Amazon AWS** and **Alphabet Google Cloud**, as well as software infrastructure providers such as **Datadog**, could benefit from the above-mentioned growth trends in AI computing power.

Figure 03: Increase in US companies offering paid subscriptions for AI models, including platforms and tools – OpenAI benefits the most



Source: Credit card data from US companies according to Ramp.com, July 2025.

Development of AI-powered software and adoption of AI agents

For software companies, AI is both an opportunity and a risk - strong differentiation is essential for investment success.

For software companies, AI is both an opportunity and a risk, as it lowers the barriers to entry for new competitors. We favor software companies that are riding the wave of demand for computing power from infrastructure providers. We also want to see a unique data set, strong distribution power, and ideally a strong position in industry-specific application areas. We consider **ServiceNow** and **Pegasystems** to be strongly positioned in AI-powered workflow and productivity solutions. **SAP** has an extremely strong position in the data layer of large companies and expects accelerated growth as in the AI era, companies increasingly need to migrate their ERP (enterprise resource planning) systems to the cloud.

[4] Perri, L. (2023, October 17). *Generative AI can democratize access to knowledge and skills*. Gartner. https://www.gartner.com/en/articles/generative-ai-can-democratize-access-to-knowledge-and-skill.

AI agents represent the next evolutionary stage of classic chatbots: they independently manage goals, create multi-level plans, and execute actions in external tools, from code execution and API calls to robotic process automation. Open frameworks (i.e., AutoGPT, LangChain) and deeply integrated product features (Microsoft Copilot, Salesforce Agentforce, ServiceNow AI Agent) mark the range of solutions.

The first measurable revenue opportunity lies in the coding segment: there are around 40 million software developers worldwide. The market for developer and productivity software will already be worth over USD 90 billion in 2025 and is growing at double-digit rates.[5] Code agents now generate a significant portion of this. At large tech companies, roughly one-quarter to one-third of newly written code already derives from AI-powered code agents.[6]

However, code agents are only the beginning: agentic systems promise to automate entire end-to-end processes in companies, drastically reduce costs, and enable new business models – for instance, automated customer service workflows or supply chain optimizations. We believe that the benefits and market potential are underestimated in the long term. Companies like **ServiceNow, Pegasystems**, and **Microsoft** are well positioned in these areas.

Agentic systems are a game changer for cost reduction and business automation.

Industrial Revolution

We are witnessing a realignment of the global industrial landscape and have therefore renamed the megatrend "Green Revolution" to "Industrial Revolution". The main drivers continue to be sustainability and environmental aspects, but we consider the restructuring of global value chains to be the crucial driver.

The restructuring of the global industrial landscape is a key factor in the coming "Industrial Revolution".

Geopolitical fragmentation, technological innovations, and the pursuit of resilience in supply chains are leading to a new phase of industrial value creation. Capital flows are increasingly being redirected to strategic sectors such as renewable energies, semiconductors, automation, defense, and infrastructure. This opens up a structural growth area for institutional investors that not only offers opportunities for attractive returns but could also contribute to the long-term stability of portfolios.

We see the following sub-drivers of the Industrial Revolution:

1. Government Policies & Geopolitics
   - Fiscal policy and government investment (infrastructure, defense)
   - Industrial policy: nearshoring / reshoring (supply chains, strategic autonomy)
2. The Future of Energy & Scarce Resources
   - Global energy demand & changes in energy demand (EVs, batteries, power grids, storage technologies)
   - Changes in the energy mix (gas, solar, wind, nuclear)
   - Shortage of critical resources (precious metals, water, waste management)
3. Automation & Robotics
   - Industrial automation & digital factories (smart manufacturing, process optimization)
   - Robotics (logistics, industrial manufacturing)

[5] Business Research Insights „*Productivity Software Market Overview*", June 2025.
[6] Techcrunch.com, 2025, June 5, & SaaSTR.com, 2025, July 14.

Government policies and Geopolitics

Industrial policy: Nearshoring / Reshoring

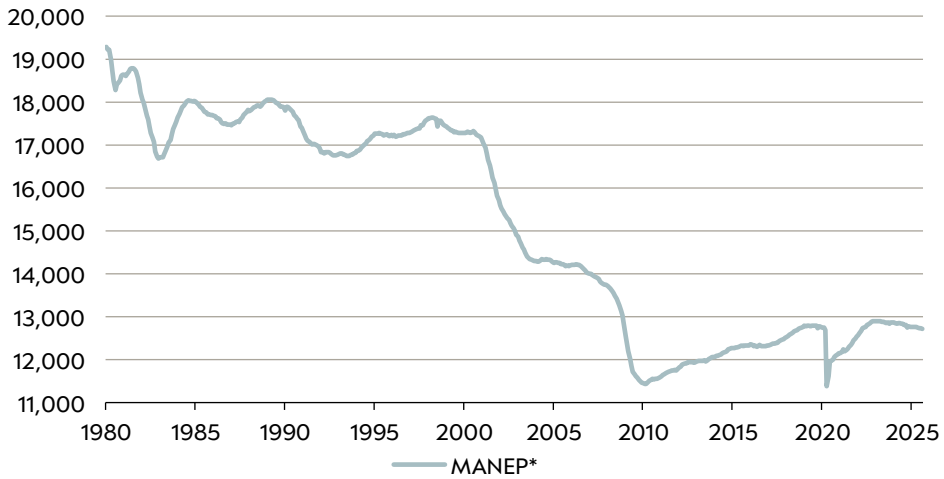
If we had written an analysis of megatrends more than 25 years ago, globalization would have played a central role with the increasing division of labor in industrial supply chains. It shifted the production of intermediate products and industrial goods to emerging markets in order to reduce costs, while developed economies focused on higher-value processes and services. Due to low labor costs, Southeast Asia became the "workbench" of the Western world.[7]

As a result, industrial investment declined in Western countries. In the US, investment in manufacturing rose by an average of just under 3.8% per year between 1952 and 2000, the year China joined the WTO; since 2000, annual growth has been only around 0.7% per year.[8]

Globalization has resulted in the loss of more than seven million jobs in the US manufacturing sector.

At the same time, more than seven million manufacturing jobs have been lost in the US over the past 40 years, while the population has grown by almost 100 million to over 320 million during the same period.[9] [10]

Figure 04: Manufacturing (MANEP) in the US, thousands of persons, monthly, seasonally adjusted



Source: Berenberg, Federal Reserve Bank of St. Louis, January 1, 1980 - August 1, 2025. *Manufacturing, all employees.

Another long-term effect is a creeping dependence on certain goods. In principle, this is only a minor problem if these goods can also be sourced from other regions of the world. In recent years, however, it has become clear that the US is increasingly dependent on Asia - especially China - for key technologies. According to MERICS, the US imports over 90% of its (permanent) magnets from China – a key component for batteries and electric drives. More than 92% of the graphite-based anode material for batteries produced worldwide comes from China. The US is currently around 70-80% dependent on China for rare earths; for some elements, it is even completely dependent.[11] These raw materials are indispensable for energy supply, electronics, and

The US continues to be heavily dependent on China for key technologies and important raw materials.

[7] KPMG LLP und The Manufacturing Institute. *Cost of Manufacturing Operations Around the Globe. Whitepaper*, October 2020. KPMG LLP.
[8] Federal Reserve Bank of St. Louis, 2025, September 9, https://fred.stlouisfed.org.
[9] US Census Bureau, https://www.census.gov/about/history/historical-censuses-and-surveys/decade-facts.1980.html.
[10] US Bureau of labour statistics, https://www.bls.gov/opub/btn/volume-9/forty-years-of-falling-manufacturing-employment.htm.
[11] Chimits, F. (2024, October 1). Growing asymmetry: *Mapping the import dependencies in EU and US trade with China*. MERICS – Mercator Institute for China Studies. https://merics.org/en/report/growing-asymmetry-mapping-import-dependencies-eu-and-us-trade-china.

defense. Similar concentration risks exist in chip production in Taiwan and in pharmaceutical products - especially generics - from India.
These critical dependencies, evident in the example of the US, and the loss of American manufacturing jobs are a key reason for the reorientation of US policy toward the so-called "reshoring" of production capacities. Donald Trump put it this way: 'You see these empty, old, beautiful steel mills and factories that are standing empty and decaying. We are going to bring the companies back. We are going to cut taxes for companies that manufacture their products in the US. And we are going to protect these companies with strong tariffs.'[12]

Reshoring is a central pillar of US economic policy in response to dependencies and job losses.

Since taking office for his second term, Trump has swiftly implemented this promise and made tariffs one of the pillars of his trade policy to stimulate investment in the US. From the beginning of the year, average US import tariffs have risen significantly from around 2.5% to currently around 18%.

In the course of these tariff negotiations, strategic investment and trade commitments were also agreed upon - particularly extensive ones with the EU and Japan.

Origin of the commitment[13]	**Investment amount (USD)**
EU (investments)	USD 600 billion
EU (energy purchases)	USD 750 billion
Japan	USD 550 billion
Global commitment area	approx. USD 1.9 trillion
US government information (identified)	approx. USD 2.8 trillion

Source: The White House paper "*TRUMP EFFECT: A running list of new U.S. investment in President Trump's second term*", August 15, 2025.

In addition, since Trump took office, individual companies have pledged a total of around $1.9 trillion in investments in the US.[14] These include prominent names such as SoftBank, TSMC, Apple, Hyundai, and many more. According to the Trump administration, identified investment plans since taking office have totaled approximately USD 2.8 trillion; and the "potential" total volume of companies that could return to the US has been estimated at up to USD 4 trillion.[15]

The 100% immediate depreciation increases returns on industrial projects by around 50%.

In addition, the US government has significantly improved depreciation options as part of the One Big Beautiful Bill (OBBB). The reintroduction of 100% immediate depreciation for qualified investments (including machinery, equipment, and fixtures) makes it significantly more attractive to expand industrial capacity. A typical project with a return of 8.9% under straight-line depreciation would see its return rise to 13.1% under immediate depreciation – an increase of 420 basis points or around 50% according to our calculations. For the real economy, this means that industrial construction could trigger around USD 50 billion in additional investment (+20% compared to 2024), with non-residential construction accounting for a further USD 35 billion. Companies with

[12] SupplyChainToday. (o. J.). *Best trade war and tariff quotes*. SupplyChainToday. https://www.supplychaintoday.com/best-trade-war-and-tariff-quotes/.
[13] The White House. (2025, August 15). *TRUMP EFFECT: A running list of new U.S. investment in President Trump's second term*. Accessed on 2025, September 11, from https://www.whitehouse.gov/articles/2025/08/trump-effect-a-running-list-of-new-u-s-investment-in-president-trumps-second-term/.
[14] The White House. (2025, August 15). *TRUMP EFFECT: A running list of new U.S. investment in President Trump's second term*. Accessed on 2025, September 11, from https://www.whitehouse.gov/articles/2025/08/trump-effect-a-running-list-of-new-u-s-investment-in-president-trumps-second-term/.
[15] DeMatteo, F. (2025, March 24). *Investment commitments in U.S. nears $3 trillion since Trump took office*. *Investing.com*. Accessed on 2025, September 11, from https://www.investing.com/news/politics-news/investment-commitments-in-us-nears-3-trillion-since-trump-took-office-3945050.

high exposure to these investment cycles in the US could benefit, such as the German industrial group **Siemens** and the automation specialist **Lincoln Electric**.

Fiscal policy and government investment

Europe's fiscal policy is focusing on infrastructure and defense.

In Europe, a structural realignment of government investment can be observed, with a stronger focus on infrastructure and defense, not least due to the backdrop of the war in Ukraine. This change is particularly evident in Germany. The "Zeitenwende" ("turning point") has triggered a rethink in this country – and potentially in other European countries as well: if defense spending were to rise to 3 to 3.5% of GDP over the next five to ten years, this would correspond to additional spending of up to €985 billion, according to our calculations.

The German infrastructure package will drive investment spending for more than a decade.

The German infrastructure package provides for a special fund of €500 billion over twelve years: €100 billion for states and municipalities, €100 billion for the Climate and Transformation Fund, and €300 billion for the federal government. The aim is to reduce the investment backlog, strengthen competitiveness, and drive forward the modernization of the country. The focus is on expanding roads, bridges, railways, and waterways, as well as investing in digitalization, education, health, and research.[16] Over the stated timeframe, this corresponds to approximately 3–3.5% of German GDP per year. The aim is not only to renew the infrastructure, but also to lay the foundation for more growth, climate neutrality, and long-term stability.

As the market leader for braking systems in the rail and commercial vehicle industry, **Knorr-Bremse** could benefit from rising infrastructure spending in the long term. Another key factor is the modernization of the public sector's IT infrastructure, which could benefit companies such as **Bechtle** as an IT equipment supplier and **Secunet** as a specialist in cybersecurity, for example for the German Armed Forces.

Future of energy and scarce resources

The global energy mix is undergoing profound structural change

The global energy landscape is undergoing fundamental change. Growth drivers such as artificial intelligence, electromobility, and digitalization are causing a sharp rise in energy demand - and posing enormous challenges for existing infrastructure. At the same time, geopolitical and regulatory pressure is driving a profound change in the energy mix. In addition to power grid modernization, storage solutions, and the expansion of renewable energies, nuclear technologies are also regaining importance. At the same time, the availability of critical resources such as water, rare earths, and metals is coming into focus - as both a constraint and an investment opportunity. Companies that offer solutions for increasing efficiency, recycling, or infrastructure modernization are benefiting from structural tailwinds.

Global energy demand & changes in energy demand

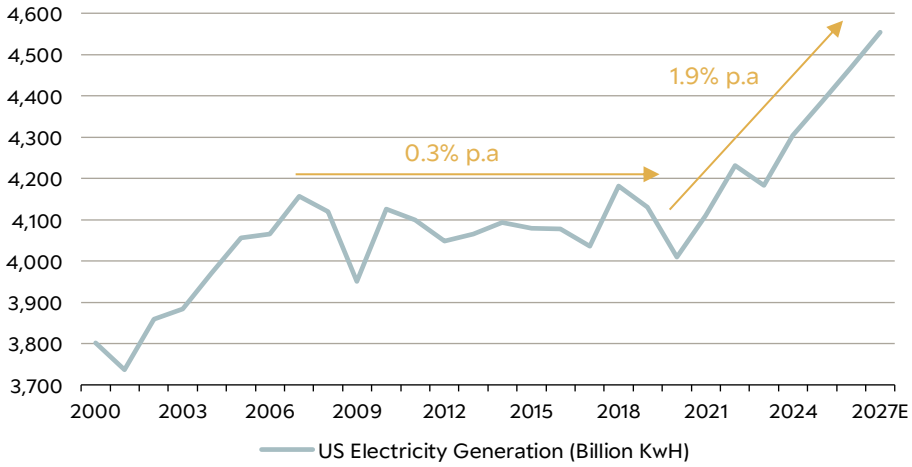
Electricity demand in the US will grow by the equivalent of 20 nuclear power plants by 2027.

Global demand for electricity is experiencing a dramatic upswing due to new structural drivers. For decades, electricity consumption in developed countries largely stagnated as efficiency gains offset rising demand. Now, the digital revolution in particular is causing a trend reversal. Since 2023, powerful AI data centers have been considered the biggest catalyst for accelerated load growth, overshadowing other drivers such as electric cars and crypto mining. Shehabi et al. estimate that data centers will account for 12% of total electricity demand in the US by 2028[17]. Modern data centers often have power requirements in excess of 100 MW, which is already leading to bottlenecks in

[16] Bundesregierung. (2025, June 24). *Investitionsoffensive für das ganze Land: Sondervermögen für Infrastruktur und Klimaneutralität*. Accessed on 2025, September 11, from https://www.bundesregierung.de/breg-de/aktuelles/sondervermoegen-2356240.
[17] Shehabi, A., Smith, S. J., Hubbard, A., Newkirk, A., Lei, N., Siddik, M. A., Holecek, B., Koomey, J. G., Masanet, E. R., & Sartor, D. A. (2024, December 19). *2024 United States Data Center Energy Usage Report* (Lawrence Berkeley National Laboratory, Energy Technologies Area, Report). https://doi.org/10.71468/P1WC7Q.

many regions. In the US and Europe, data center operators currently have to wait more than four years for grid connection in some cases, as the power grids are struggling to keep pace with the rapid expansion. After electricity production in the US grew by only 0.3% per year between 2000 and 2020, or a total of approximately 208 billion kWh, an increase of 1.9% per year between 2024 and 2027 is expected, which corresponds to approximately 250 billion kWh of additional demand and the output of about 20 medium-sized nuclear power plants.[18]

Figure 05: Electricity generation in the USA (billion kWh)



Source: Berenberg, UBS, 2000-2027E, accessed on July 6, 2025.

At first glance, this increase does not seem significant, but according to the IEA (International Energy Agency), almost 80% of networks are well over 20 years old and the expansion must be carried out in tandem with a renewal.[19] In addition, storage solutions are needed for utility companies, who now have to increase their capital investments by 12% annually, twice as fast as in the last decade.[20] Companies such as **Quanta Services** could benefit from this trend as a service provider in the field of network infrastructure.

Change in the energy mix

Geopolitics, climate targets, and rising demand are driving capacity expansion across many energy sources.

While demand for electricity is skyrocketing, the supply side is also undergoing fundamental change. In addition to rising demand, issues such as geopolitics (energy sovereignty) and climate targets are playing a role. This makes it necessary to expand capacity across various energy sources. Investments in nuclear energy are also being made by American cloud providers themselves, and commercial use of small modular reactors (SMRs) is expected within the next decade.[21] Apart from this, capacity expansion in the Western world is focusing primarily on renewable energies such as wind and solar power and on gas-fired power plants. Capacity for the construction of the latter is already fully booked for several years, which is why combined solutions consisting of solar power plants, battery storage, and modular gas-fired power plants as backup are becoming increasingly attractive. The renaissance of nuclear energy could have a positive impact on companies such as **Sprott** and **Flowserve**.

Thanks to its deep value chain in the US, **First Solar** is well positioned to benefit from a potential boom in commercial solar installations, while **Primoris Services** is active as a

[18] UBS Research. (2025). *GE Vernova – Watt's not to love?*.
[19] IEA. (2025). Energy Efficiency. https://www.iea.org/.
[20] UBS Research. (2025). *GE Vernova – Watt's not to love?*.
[21] Panerali, K., & Gogan, K. (November 7, 2024). *Accelerating new nuclear and small modular reactor deployment*. *World Economic Forum*. Accessed on 2025, September 11, from https://www.weforum.org/stories/2024/11/accelerating-new-nuclear-and-small-modular-reactor-deployment/.

specialist service provider for (energy) infrastructure in relevant niches. Due to limited access to energy, solar installations in particular, have come into focus. The first electrons often flow within 2-3 years, while gas-fired power plants require 5-7 years and conventional nuclear power plants only produce electricity after a decade. The long waiting times for gas turbines are due to high demand and the currently limited capacities of companies such as **GE Vernova** and **Siemens Energy**. **Grenergy**, one of the leading providers of energy storage solutions, is currently benefiting from the electricity shortage.

Shortage of critical resources

The accelerated energy transition and digitalization are driving enormous consumption of raw materials. Critical resources - from water to special metals to rare earths - are therefore also at the heart of strategic efforts and open up attractive opportunities for companies specializing in solutions for greater efficiency, substitution, or recycling.

By 2027, AI applications will consume 4-6 times as much water as the entire country of Denmark.

Water is becoming an increasingly scarce resource worldwide, and by 2030, global demand for fresh water could exceed supply by 40%.[22] The traditional drivers of urbanization, climate change, and industrialization are now being supplemented by the AI sector. By 2027, this sector will consume 4-6 times as much water globally as the entire country of Denmark.[23] At the same time, the relevant infrastructure is suffering from decades of underinvestment. Crumbling pipe systems in the US, for example, cause a 20% loss of water during transport to households.[24] **Xylem** provides various solutions to better monitor infrastructure, operate facilities more efficiently, and reduce water loss.

Scarce resources require a circular economy.

Limited resources are increasing the pressure to establish a circular economy, and ambitious ESG and CO2 targets at the state and corporate level are reinforcing the trend toward recycling. Meanwhile, the amount of electronic waste, used batteries, and industrial waste is growing with the boom in new technologies. **GFL Environmental** and **Waste Connections** are among the largest integrated waste management companies in North America, covering the entire waste management value chain and thus able to offer integrated solutions for the circular economy. They manage to recover valuable materials, thereby reducing primary demand. They also invest in the production of biogas from waste, which is fed into the grid as fuel, generating additional revenue.

Automation and Robotics

Automation and robotics increase efficiency in all sectors.

Automation and robotics are transforming production processes worldwide while increasing efficiency and productivity. Driven by a shortage of skilled workers, rising labor costs, and technological advances, demand is growing rapidly. Robots are used in industrial, logistics, healthcare, and increasingly in the consumer sector. Artificial intelligence and sensor technology enable flexible, autonomous systems with high value-adding potential. Opportunities are opening up for investors in robotics manufacturers, supply chains, and software solutions.

Industrial Automation & Digital Factories

Siemens is a leading global provider of industrial automation and is driving the development of smart factories with its Digital Industries division. With hardware and

[22] Hemingway Jaynes, C. (2023, March 22). *Global freshwater demand will exceed supply 40% by 2030, experts warn*. World Economic Forum. Accessed on 2025, September 11, from https://www.weforum.org/stories/2023/03/global-freshwater-demand-will-exceed-supply-40-by-2030-experts-warn/.
[23] Spindler, W., Hahn-Petersen, L. A., & Hosseini, S. (2024, November 7). *Why circular water solutions are key to sustainable data centres*. World Economic Forum. Accessed on 2025, September 11, from https://www.weforum.org/stories/2024/11/circular-water-solutions-sustainable-data-centres/.
[24] Bluefield Research. (2025, April 28). *Water losses cost U.S. utilities US$6.4 billion annually* [Press release]. Accessed on 2025, September 11, https://www.bluefieldresearch.com/ns/water-losses-cost-us-utilities-us6-4-billion-annually/.

software solutions ranging from automation controls and industrial sensor technology to digital twin technologies, Siemens enables the end-to-end integration of production processes.

Networking machines and systems is an important area. **HMS Networks** focuses on industrial communication and enables the networking of machines, systems, and robotics in digital factories. With its solutions for fieldbus and industrial Ethernet protocols as well as industrial IoT (Internet of Things), **HMS** contributes significantly to data integration and process optimization in the smart manufacturing environment. **Addtech** is a technology trading and service group that supplies specialized components and subsystems for industrial automation. Through its network of niche companies, **Addtech** supports customers in setting up efficient and digitally networked production environments.

Robotics

Robotics is considered a key technology for Industry 4.0.

Robotics is a central component of the Industry 4.0, as it significantly expands automation potential in manufacturing, logistics, and services. Its applications range from collaborative robots (cobots) in production to autonomous mobile robots in warehouse logistics, enabling greater efficiency, flexibility, and productivity. **Zebra Technologies** has established itself as a provider in the field of autonomous mobile robots (AMRs) through its acquisition of Fetch Robotics. In addition to its core solutions for data capture and automation, Zebra is driving the digital transformation of logistics and manufacturing processes, thereby further strengthening its position in the market for smart factories and intralogistics.

Summary and conclusion

Megatrends open up sustainable growth and return opportunities.

Megatrends reflect profound structural changes in the economy, society, and technology. Companies that emerge as winners in this context could achieve above-average and sustainable growth. This opens attractive, long-term return opportunities for investors if they focus on these developments at an early stage. At the same time, megatrends enable a strategic portfolio alignment that reduces risks from obsolete business models and strengthens the future viability of investments.

The megatrend of AI is influencing a wide range of economic sectors and is a self-reinforcing cycle.

Hardly any other megatrend is having such a profound impact on so many sectors as AI. The developments reinforce each other: demand for AI-powered software is fueling investment in semiconductors and hardware, more powerful models, cloud infrastructure, and the energy value chain. More powerful models, in turn, increase the usefulness of the software and stimulate demand - a self-reinforcing cycle. Accelerated growth is already visible in many subsegments, while in others we are only at the beginning of the growth curve. In industry in particular, the use of AI is still in its infancy. However, the potential is enormous once AI moves from pure software to real-world applications, such as robotics.

From globalization back to reshoring and government industrial policy.

After decades of global division of labor, reshoring, government industrial policy, and security policy investments are increasingly setting the agenda. Supply chains are being reorganized, while infrastructure and defense spending is being greatly expanded. This creates opportunities for companies that benefit from government programs, infrastructure measures, or regional autonomy. At the same time, investors are under increasing pressure to factor geopolitical risks and political conditions more heavily into their decisions.

AI drives energy and resource demand.

The rising energy demand caused by AI, electromobility, and digitalization is facing outdated network infrastructures and limited resources. Electricity and water shortages are therefore becoming just as much a focus as investments in renewable energies, gas-fired power plants, nuclear technologies, and storage solutions. At the same

time, the shortage of critical raw materials is forcing the construction of a circular economy. Companies that modernize infrastructure, increase efficiency, or offer recycling solutions are benefiting from long-term structural tailwinds.

Automation and robotics are drivers for efficiency, cost reductions, and new business models. AI-powered systems automate entire processes and open potential in industry, logistics, and services. With smart factories and flexible robotics solutions, companies worldwide are transforming production processes. Providers of industrial automation, digital networking, and autonomous robot systems in particular, can benefit from this development in the long term.

Automation, robotics, and AI go hand in hand.

Our aspiration is to identify megatrends early on, anticipate them, and consistently reflect them in our portfolio allocation.

Publishing Information

Publisher

Dejan Djukic
Head of Portfolio Management
Wealth & Asset Management
T.: +49 69 91 30 90–233
E.: dejan.djukic@berenberg.com

Author

Martin Hermann, CFA
Portfolio Manager
Wealth & Asset Management

T.: +49 69 91 30 90 – 522
E.: Martin.Hermann@berenberg.de

Co-Author

Tim Gottschalk, CFA
Portfolio Manager
Wealth & Asset Management

T.: +49 69 91 30 90 – 468
E.: Tim.Gottschalk@berenberg.com

Co-Author

Bernd Deeken, CFA, CAIA
Portfolio Manager
Wealth & Asset Management

T.: +49 40 350 60 – 3157
E.: bernd.deeken@berenberg.de

Co-Author

Marco Solleder, CFA
Portfolio Manager
Wealth & Asset Management

T.: +49 69 91 30 90 – 1130
E.: marco.solleder@berenberg.com

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Joh. Berenberg, Gossler & Co. KG
Neuer Jungfernstieg 20
20354 Hamburg
Phone: +49 40 350 60-0
www.berenberg.de/