AI's Industrial Disruption

Power, Infrastructure, and the Future of Manufacturing

The rapid adoption of AI is driving a historic surge in infrastructure investment, igniting demand across industrial and manufacturing sectors. This boom is reshaping how we build, power, and sustain critical systems across the country.

The recent announcement of Stargate, a $500 billion AI infrastructure investment backed by Oracle, Microsoft, Meta, and OpenAI, highlights the scale and urgency of what's unfolding. While in the previous two years, their combined investment in AI infrastructure hovered around $30 billion. This is not merely a tech story—it is a manufacturing story. The ripple effects of AI are transforming the supply chain, requiring everything from precision-fabricated data center components to large-scale power solutions.

The question is now clear.

> **Can the industrial and manufacturing sectors build fast enough to meet this unprecedented demand?**

Three Core Pressure Points

1. Data Center Construction: The Race to Build

The computational demands of AI models sparked a data center construction boom unlike anything seen before. Companies are racing to expand capacity, but the supply chain supporting this buildout is vast and increasingly strained. It extends far beyond semiconductors to encompass metal racking, cooling systems, electrical infrastructure, specialized facility components, and raw materials.

Oracle's recent multibillion-dollar infrastructure commitment reflects the scale of the challenge, but it also underscores the increasing strain placed on manufacturers as they work to scale production quickly enough to meet demand without compromising quality or destabilizing their supply chains.

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2. Power Generation: An Industry Straining to Keep Up

AI-driven demand is putting unprecedented pressure on the U.S. power grid, which has seen limited investment over the past 25 years, despite surging energy needs. For hyperscale data centers—the backbone of AI infrastructure—the question is no longer if energy capacity will be a challenge, but when it becomes a limiting factor. Reports of a planned South Korean data center requiring 3GW of power dwarf today's largest U.S. facilities, which typically draw up to 1GW. This is a glimpse into what the future holds.

To secure the energy they need, tech giants like Meta, Google, and Microsoft are pursuing a multi-pronged approach—acquiring power plants, evaluating small modular reactors (SMRs), and developing microgrid systems with natural gas and hybrid fuel sources to create self-sustaining "power islands." Simultaneously, they are forging new partnerships with utilities and investing in renewable energy projects to stabilize their long-term supply.

For manufacturers of power generation and energy storage systems, this demand presents a dual challenge: rapidly scaling capacity today while also preparing for a future increasingly shaped by hydrogen, fuel cells, and next-generation battery storage.

3. Backup Power Generation: A Critical Safety Net

Data centers—and industries far beyond—are investing heavily in backup power systems to ensure operational resilience. While AI-driven data demand is a major catalyst, it is compounded by climate-driven storm activity, aging infrastructure, and grid instability.

Manufacturers in this space are seeing unprecedented order volumes, with some products—such as generator enclosures—sold out for years. Meeting this demand requires more than just assembling gensets. It involves securing and coordinating a complex supply chain that includes engines, alternators, control panels, batteries, and other key components.

This ecosystem extends well beyond manufacturing. It requires installation, servicing, and long-term maintenance capabilities to ensure these critical backup systems are ready when they are needed most.

The Bigger Picture: Supply Chain Pressures, Capital Investment, and Policy Shifts

The AI-driven infrastructure boom is exposing long-standing vulnerabilities in supply chains. Access to raw materials, specialized components, and scalable manufacturing capacity has become an essential competitive advantage.

Companies that lack robust, diversified supply chains are finding themselves under pressure to invest or risk being left behind. At the same time, tariffs and evolving trade policies may complicate sourcing decisions. While a 10% tariff may be manageable, a potential 25% or more rate shift could push companies to rethink their supplier networks.

Private equity investors are taking notice. Large firms are aggressively moving into the sector, targeting businesses across the infrastructure and power supply chain. Platinum Equity's acquisition of Kohler Generators is just one example of the capital flowing into this high-stakes environment.

Navigating the AI-Driven Industrial Shift

The AI boom is fundamentally reshaping industrial and manufacturing sectors, creating extraordinary opportunities alongside significant challenges. Companies face mounting pressure to scale, source critical inputs, and maintain profitability—all within an environment where demand often outstrips supply.

G2 Capital Advisors is working alongside clients at the center of this transformation, providing strategic guidance, manufacturing expertise, and access to capital. We help businesses navigate the complexities of scaling up, shoring up supply chains, and securing the resources necessary to seize this once-in-a-generation opportunity.

25%+

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The companies that adapt quickly will lead the future of industrial manufacturing. G2 is here to ensure our clients are among them.

Ongoing Projects

The AI boom is already reshaping industrials and manufacturing, and we're seeing it firsthand in our work. From scaling production to securing supply chains and capital, companies are navigating new challenges and opportunities at an unprecedented pace. As demand accelerates across data center infrastructure, power generation, and beyond, G2 is actively advising businesses positioned at the center of this transformation. Below are a few of the projects we're engaged in that highlight the real-world impact of AI on the industry.

Project Guiness

Contract Manufacturer | M&A Sell-Side

G2 is advising a premier business partner for contract manufacturing and sheet metal fabrication with exposure to attractive data center and power generation end markets.

Project Fuse

Generator Manufacturer | M&A Buy-Side

G2 is advising a leading manufacturer and assembler of standby and supplementary generator sets.

Project Gale

Power Transmission | Restructuring

G2 has been engaged by a utility contractor specializing in storm response and emergency services to restore electric grids swiftly and safely.

Project Voltage

Power Transmission | M&A Buy-Side

G2 is supporting a utility services provider offering end-to-end infrastructure solutions for electric, wind, solar, natural gas, and telecommunications customers nationwide.

Featured Project

FINANCIAL ADVISOR

Williams has been refinanced by PNC Bank and Energy Impact Partners

Client

Headqaurtered in Atlanta, GA, Williams offers con-trustction and maintenance services to commercial nuclear power martkets.

Situation

Williams pursued a refinancing to expand its service offerings and carry a hiugher level of working capital.

Engagement

G2 was engaged to secure a refinancing and stayed on to continue supporting financial forecasting and strategic initiatives.

Outcome

G2 successfully supported Williams through multiple refinancings and credit ammendment processes, enabling access to new debt facilities and additional liquidity to support growth and financial stability.