Case Study
MP Materials' 10X Rare Earth Magnet Manufacturing
Reshoring Critical Supply Chains

Executive Summary / Elevator Story

In February 2026, MP (Mountain Pass) Materials Corp. (NYSE: MP) selected a 120-acre site in Northlake, Texas, less than 10 miles from its existing Independence facility in Fort Worth, for "10X," a next-generation rare earth magnet manufacturing campus. The Project represents a company investment of more than $1.25 billion and is expected to create over 1,500 direct manufacturing and engineering jobs. Once operational, 10X will help scale MP's total U.S. NdFeB (neodymium-iron-boron) magnet production capacity to approximately 10,000 metric tons per year, *establishing North Texas as the hub of America's rare earth magnet supply chain.*

This initiative is a cornerstone of MP's July 2025 public-private partnership with the U.S. Department of Defense (DoD), which provides long-term offtake commitments and financing certainty to accelerate domestic production of magnets essential for defense systems, electric vehicles (EVs), semiconductors, AI data centers, robotics, wind turbines, and consumer electronics. Backed by roughly $200 million in Texas State and Local incentives (including Texas Enterprise Fund and Texas Semiconductor Innovation Fund grants), 10X advances U.S. supply chain independence from China, which currently dominates ~92% of global rare earth magnet production. Commissioning is targeted for 2028, with groundbreaking imminent as of mid-2026. The Project exemplifies how strategic public-private collaboration, combined with existing U.S. mining assets, can rebuild critical materials capabilities at unprecedented scale

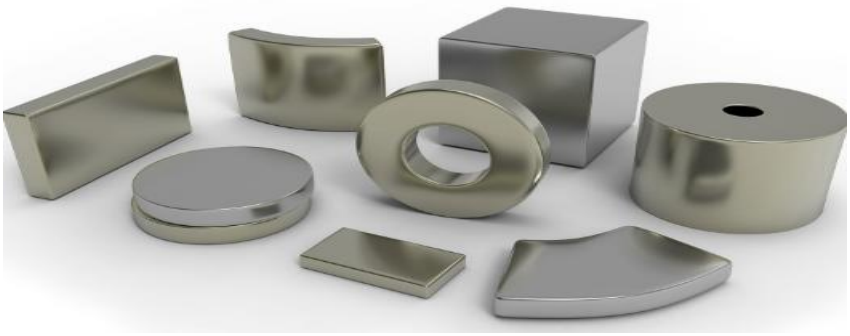
Ted J. Pappas, Director of Operations

Introduction / Background

MP Materials Overview

MP Materials is America's only fully integrated rare earth producer, spanning the entire supply chain from mining and processing to advanced metallization and magnet manufacturing. The company operates the Mountain Pass mine in California, one of the world's richest rare earth deposits, where high-grade ore is extracted and processed into rare earth concentrate, then separated and refined into high-purity compounds and metals. Downstream operations occur at the Independence facility in Fort Worth, Texas, which began commercial metal production in 2024 and alloy/magnet production in 2025. Independence restored end-to-end U.S. rare earth magnet capabilities for the first time in decades.

Rare earth magnets, particularly NdFeB, are the world's strongest and most efficient permanent magnets. They enable high-performance applications across transportation (EVs and EV motors), defense (drones, fighter jets), robotics, medical devices, and advanced semiconductors. Global demand is surging due to electrification and technological innovation, yet the U.S. has long been dependent on foreign suppliers, primarily China, for processed rare earths and finished magnets.



Industry Context
China's dominance in rare earth processing and magnet manufacturing creates strategic vulnerabilities for U.S. national security and economic competitiveness. MP's vertically integrated model, from Mountain Pass ore to finished Texas magnets, addresses this gap, with closed-loop recycling further enhancing circularity and cost efficiency.

The Strategic Imperative

The 10X Project directly supports U.S. goals of economic resilience and National Security. NdFeB magnets are critical components in technologies underpinning AI, electrification, and defense. The DoD partnership, announced in July 2025, includes a 10-year magnet offtake agreement (100% purchase of 10X output for defense and commercial needs), a NdPr (neodymium-praseodymium) products price floor, equity investment, and financing to de-risk the buildout. This public-private model provides demand certainty while keeping the facility wholly owned and operated by MP.

Project Details

- Location and Scale: 120-acre campus in Northlake, Texas, within the AllianceTexas development (land acquired from Hillwood). Proximity to Independence allows shared expertise, talent, and ecosystem benefits.
- Capacity and Technology: Expands MP's magnet platform to ~10,000 metric tons of NdFeB magnets annually. Incorporates next-generation innovations, including MP-developed Grain Boundary Diffusion (GBD) processes that reduce or eliminate heavy rare earth usage while maintaining performance. Raw materials sourced from Mountain Pass; scrap recycled via short- and long-loop circuits in Texas and California.
- Timeline: Engineering and equipment procurement underway as of February 2026. Construction breaking ground imminently; commissioning targeted for 2028.
- Integration: Builds directly on Independence (**America's first integrated NdFeB magnet facility**), leveraging its metallization, alloying, powder metallurgy, and finishing capabilities.

Site Selection Factors

North Texas was chosen after a national evaluation for its world-class workforce, manufacturing expertise, logistics infrastructure, and proximity to Independence. The AllianceTexas location offers rail, highway, and airport access. Strong local and State support, including incentives and collaboration with Denton County, the City of Northlake, and Hillwood, sealed the decision.

Economic and Community Impact

The Project is projected to generate over 1,500 high-quality corporate, manufacturing, and engineering jobs, with significant multiplier effects in North Texas' advanced manufacturing sector. It diversifies the regional economy, strengthens supply chains, and positions the area as a magnetics hub. State and local incentives totaling ~$200 million (including $12.88 million TEF (Texas Enterprise Fund) grant for operations and $53.46 million TSIF (Texas Semiconductor Innovation Fund) grant for manufacturing) reflect Texas' commitment to next-generation industry.

Government and Partnership Support

- DoD Partnership (July 2025): Multibillion-dollar package including equity, loans, price supports, and offtake to accelerate independence.
- Texas Leadership: Governor Greg Abbott, Senators John Cornyn and Ted Cruz, and local officials highlighted job creation, semiconductor support, and reduced foreign dependence.

- Private Partners: Hillwood (Ross Perot Jr.) and customers like General Motors (long-term magnet supply) and Apple (recycling collaboration) underscore commercial viability.

Innovations and Sustainability

10X emphasizes MP's focus on responsible production: closed-loop recycling, reduced heavy rare earth dependency via GBD technology, and industry-leading environmental and safety standards at Mountain Pass. The project tightens circularity across the platform.

Challenges

Rare Earth Magnet manufacturing is technically complex, requiring precision chemistry and metallurgy. Market price volatility, global competition, permitting timelines, and workforce scaling present risks. Environmental stewardship and community engagement will be critical for long-term success. As of May 2026, the project remains in pre-construction/engineering phase.

Outlook and Implications

Upon commissioning in 2028, 10X will represent **one of the largest Rare Earth Magnet facilities globally and a generational leap in U.S. industrial capacity**. It strengthens MP's position, catalyzes broader critical minerals reshoring, and sets a precedent for public-private partnerships in strategic sectors. Long-term, it supports domestic EV, defense, and tech supply chains while reducing geopolitical risks.

Conclusion and Lessons Learned

MP Materials' 10X Project demonstrates that restoring critical supply chains requires vertical integration, technological innovation, and aligned government-industry partnerships. By leveraging Mountain Pass resources, Texas infrastructure, and DoD demand certainty, MP is delivering industrial-scale impact at a pace not seen in generations. The initiative underscores a key lesson: strategic investments in domestic critical materials not only create jobs and economic growth but also enhance national security and technological leadership for decades to come.