

Mississippi-Alabama-Georgia Network for Evolving Transportation (MAGNET)

Securing U.S. leadership in the global automotive industry demands urgent investment in advanced manufacturing, energy infrastructure, and resilient supply chains to keep pace with the accelerating momentum of this sector. Success in advanced mobility will hinge on cutting-edge research, robust domestic electric vehicle (EV), advanced mobility, and charging infrastructure value chains, and rapid infrastructure deployment to overcome key barriers, including limited public charging, OEM and supplier hesitancy, and consumer adoption challenges. The Mississippi-Alabama-Georgia Network for Evolving Transportation (MAGNET) is a tri-state research and innovation hub led by **The University of Alabama**, in partnership with **Mississippi State University**, the **University of Georgia**, **Southern Company** and a coalition of more than **110 cross-sector partners from industry, academia, and government**.

Enabled by a groundbreaking MOU signed by all three Governors and backed by catalytic leadership from Southern Company, MAGNET is coordinating across differing government policies, workforce

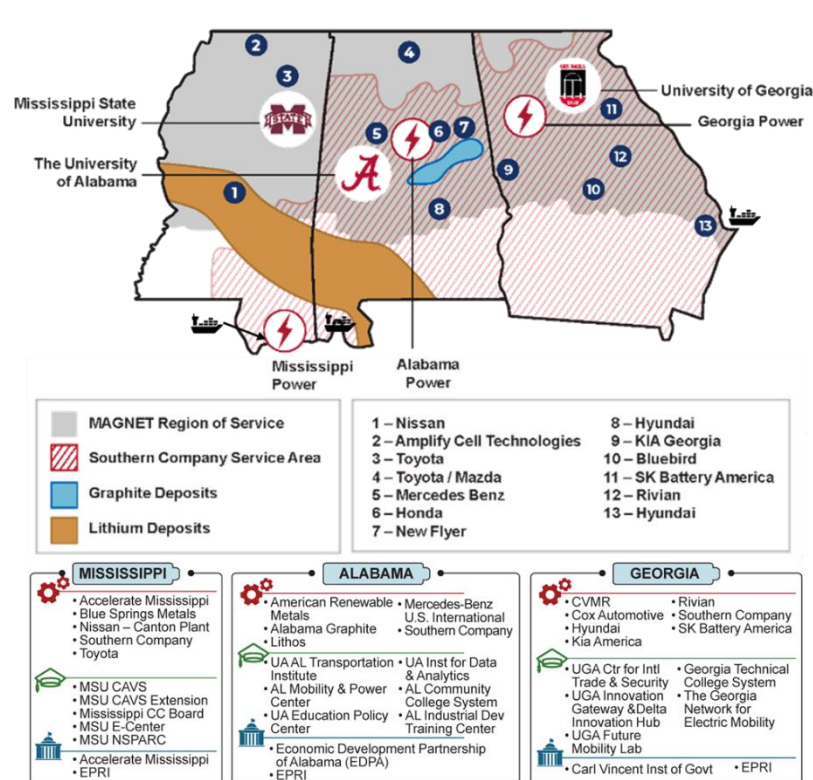


Figure 1 The MAGNET Region of Service (RoS) includes a significant automotive OEM footprint, critical mineral resources, and access to ports to support necessary supply chains. Show is a small subset of the >110 partners.

systems, and industrial strategies to build a resilient supply chain and innovation ecosystem. Southern Company and its subsidiaries (AL Power, GA Power, MS Power) serve as both implementers and conveners, supporting tri-state automotive manufacturing readiness and infrastructure through collaborations with DOTs and public service commissions.

Initially funded through a National Science Foundation Regional Innovation Engines (NSF Engines) Development award, MAGNET and its partners are now competing for a \$160 million NSF Engines Type-2 award to expand this work and **formalize MAGNET as a tri-state research and innovation hub**. Following successful pre- and full proposal submissions, MAGNET has been

selected as **one of 29 finalists** invited to a virtual site visit interview. If awarded, the Southeast stands to capitalize on this momentum, amplifying existing OEM investments and accelerating the region's emergence as a national powerhouse in advanced mobility. With a projected ROI of up to 25x, MAGNET will catalyze over \$4 billion in new advanced mobility and EV investments across Alabama, Mississippi, and Georgia, supporting more than **32,000 direct jobs** and up to 122,000 total jobs when indirect and induced effects are included. These outcomes will help secure the \$37 billion already committed in the



region and reinforce the long-term global competitiveness of U.S. advanced automotive manufacturing. **Federal support via NSF through MAGNET is critical** to stabilizing this strategic corridor and positioning it as a global leader in the electrified transportation economy.

MAGNET will leverage industry partners' manufacturing and research facilities to support the increase in commercialization opportunities. MAGNET will build upon the ongoing and successful initiatives of these research facilities, as well as its accelerator and entrepreneurship programs, to grow and strengthen the regional innovation ecosystem.

An NSF Engine award will allow MAGNET to expand considerably upon its current successes, including:

- Use of a **consumer-based EV adoption tool**, the Electric Vehicle Outlook and Leads Verification Engine (EVOLVE), which is able to forecast workforce needs in the emerging EV market. This tool may also inform workforce curriculum development and training, making sure that the Southeast is best suited for forecasted capital investment.
- Investing in **use-inspired research**, i.e., focusing on what is needed to support and accelerate a domestic advanced automotive manufacturing supply chain. MAGNET unites the abilities of three universities, and other partners, to tackle critical transportation-related research in order to accelerate innovations in battery technology, charging infrastructure, and sustainable materials, overall strengthening the U.S. position in the global automotive and advanced manufacturing market.
- Using input from academia, industry, and government to **inform policy makers** on strategies and methods to not only improve consumer-driven future mobility adoptions but also attract significant growth forecasted in this sector in the short term. CAPx investment in the battery industry is expected to hit \$1.6 trillion by 2040, and investment in infrastructure is expected to hit \$2.1 trillion by the same year.

Further, the MAGNET region of AL, MS, and GA aims to seize this moment by leveraging its existing momentum and competitive advantages including:

- **An embedded industry network and manufacturing infrastructure:** The Southeastern U.S. produces about 2.5 million vehicles a year and has attracted automakers such as Mercedes-Benz, Toyota, Nissan, Honda, Hyundai, and Kia. Meanwhile, the presence of critical materials needed for advanced automotive manufacturing in the MAGNET region, such as graphite, lithium, and aluminum, offers potential for the Southeast to emerge as the "Battery Belt" of the U.S.
- **A premier location and potential for continued economic and workforce development:** MAGNET's Region of Service is experiencing an automotive-driven economic shift, bringing jobs, infrastructure, and training to historically underleveraged rural and low-income communities. This region offers untapped talent critical to closing the advanced mobility skills gap.

MAGNET presents the lighthouse investment necessary to synthesize necessary expertise from industrial, academic, and governmental sectors, enabling the Southeastern U.S. to emerge as a global leader in the critical advanced automotive manufacturing industry over the next decade.

MAGNET is uniting the Southeast to lead the future of advanced automotive manufacturing and catalyze long-term economic transformation.