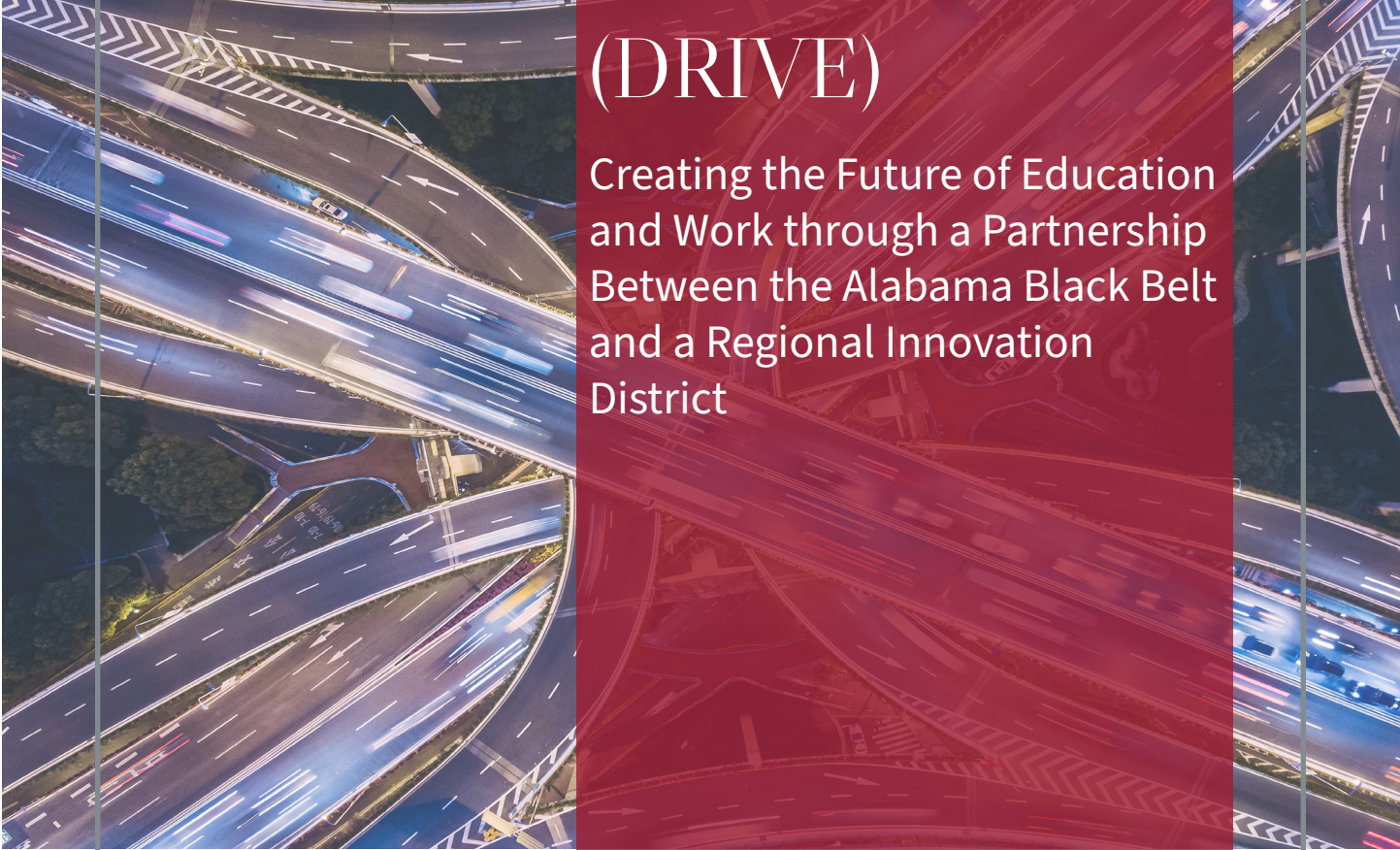




Driving Regional Innovation through Vehicle Electrification (DRIVE)

Creating the Future of Education
and Work through a Partnership
Between the Alabama Black Belt
and a Regional Innovation
District

A partnership between The University
of Alabama, West AlabamaWorks,
Tuscaloosa County Economic Development
Authority, and Shelton State Community
College.

Table of Contents

DRIVE Concept Proposal	•	1
DRIVE Regional Assets	•	7
DRIVE Industry Leadership	•	13
DRIVE Sustainability	•	51
DRIVE Equity	•	53
DRIVE Coalition Members	•	56
DRIVE Letters of Support	•	76
DRIVE Budget	•	95
DRIVE Forms	•	98

Driving Regional Innovation through Vehicle Electrification (DRIVE)

Creating the Future of Education and Work through a Partnership Between the Alabama Black Belt and a Regional Innovation District

1 VISION

The *Driving Regional Innovation through Vehicle Electrification (DRIVE)* coalition's vision is to create a dynamic center of sustainable job creation, innovation and competitiveness in Wider West Alabama that will position the region to *lead* the state and the nation into the future of mobility. The fusion of education, economic and workforce development, and technology, facilitated and sustained in perpetuity by an innovation district (the Tuscaloosa Innovation District), will foster a broader web of smart and connected resources that will diversify and create industry and workforce opportunities across the region, particularly the rural *Black Belt*^[1] – an area named for the dark color of its soil. DRIVE will stimulate long-term recovery from the Covid-19 pandemic and contribute to a larger and more sustainable economy. With momentum building for vehicle electrification (EV) at both the national and state level – President Biden calling for 50% EV's by 2030 and Governor Ivey assembling the *Alabama Innovation Commission* – the time to act is now.

DRIVE catalyzes on this momentum and the persistent revitalization efforts of established entities from the education sector and state by aligning them with a transformative investment strategy responsive to the needs of the region's evolving industry and historically under-served rural communities. The result will be a robust network of resources and a sustainable workforce pipeline, as well as a workforce development system poised for the future. DRIVE will deploy resources to develop the career pathways and supportive services required by today's advanced manufacturing industry. Coalition members have designed a cooperative set of component projects that are aligned with existing state initiatives (the Alabama Innovation Commission) and CEDS, and

will make strategic investments in four interconnected domains: *Innovation and R&D, Company Creation & Recruitment, Talent Development, and Community Development & Sustainability.*

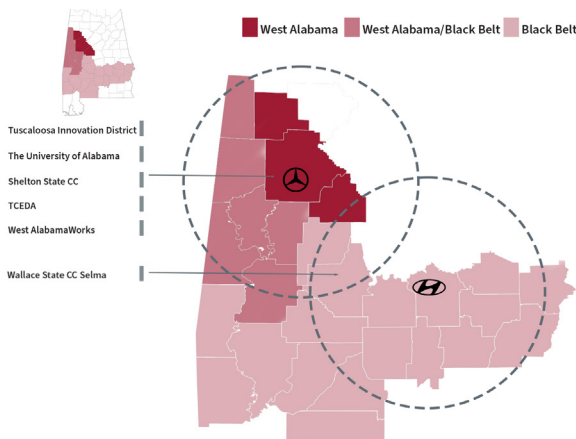


Figure 1 — Snapshot of Wider West Alabama

2 ECONOMIC BACKGROUND

Wider West Alabama (WWA) is well positioned for the opportune time. The electrification of the region's automotive industry is accelerating and companies are enhancing their commitment to this new manufacturing with regional expansions and investments. Mercedes Benz U.S. International (MBUSI), the region's largest original equipment manufacturer (OEM), which started the modern auto industry era in Alabama in 1993, is investing over \$1 billion in the region and is set to begin producing luxury electric SUVs next year^[2]. A vast net of suppliers, including battery producers and recyclers, are currently settling in WWA to facilitate MBUSI's move toward electric vehicle production^[3]. The University of Alabama (UA) and the state are providing support with investments into UA's Alabama Mobility and Power (AMP) Initiative, as announced by Governor Ivey on July 23, 2021^[4].

Statewide, the automotive industry is projected to add over 6,000 workers to its labor force in the next two years alone^[5]. This is in addition to the 40,000 jobs that are part of Alabama's continuously expanding automotive supplier network of more than 150 major companies^[6].

As *the* engine of the Southeast's automotive sector, WWA is poised to catalyze growth and use the industry's momentum to expand opportunities into the Black Belt. This will help add over 18,000 credentialed WWA residents to the labor force by 2025.

Acknowledging that the move toward electrification is accompanied by the need for a robust, sustainable pipeline of high-skilled workers responsive to changing industry demands, scientific support for the advancement of new vehicle technologies, and coordination of efforts to foster partnerships, DRIVE will build a capacity for expanding intellectual and geographic boundaries.

The Tuscaloosa Innovation District (TID), located in the northern part of WWA, is a microcosm representation of DRIVE's vision for the entire region as it is built on a unique quadripartite partnership between higher education (UA), community, industry, and the state. TID will promote innovation, R&D, commercialization, and talent and economic development beyond its physical boundaries and into the Black Belt through public-private partnerships.

In its southern region, through high-quality career and technical education pathways and a web of wrap-around services, DRIVE will invest in career training, outreach and recruiting, as well as support services programs that will prepare thousands of workers for high-quality jobs and connect them with career opportunities in the automotive sector that provide family supporting wages.

This strategic expansion of these efforts into the Black Belt is beneficial for two reasons. First, for the automotive sector to sustain its economic growth trajectory in the future, the industry's pool of qualified workers must grow with it. Second,

for WWA to ensure long-term, sustainable and equitable economic growth, actions must be taken to revitalize the Black Belt - an area historically under-served, notoriously rural, and home to *all* of the state's 19 persistent poverty counties.

3 COALITION MEMBERS

DRIVE's coalition members and their networks are strategically positioned to bring DRIVE's vision to life. With a proven record of making and facilitating investments into the domains of *Innovation and R&D*, *Company Creation & Recruitment*, *Talent Development*, and *Community Development & Sustainability*, each member and their unique set of skills are quintessential to the successful implementation of DRIVE's projects.

3.1 The University of Alabama (UA)

Based on its research growth rate, UA is the state's lead research university: it is ranked 1st for all 14 universities in the SEC, and 9th in the nation. UA's commitment to quality education, its partnerships with entities across industry, state, and community, and its proximity to the region's largest OEM, has made UA the driving force for innovation and workforce development. The TID, its AMP Center and Alabama IMaDE (Initiative on Manufacturing Development and Education) are the latest examples of UA's investments and partnership efforts into the future of mobility. UA's departments and centers (Education Policy Center, Office for Research & Economic Development, Alabama Transportation Institute, the AMP Center, College of Engineering and Alabama IMaDE, and the School of Social Work, and VitAL) are uniquely positioned to spearhead DRIVE.

3.2 West AlabamaWorks

West AlabamaWorks is a network of interconnected providers of workforce services, including governmental, educational, and private sector components that train, prepare and match job

seekers with employers. Currently, it services nine counties in WWA. Through DRIVE, West AlabamaWorks will capitalize its network with extensive connections to the automotive sector to expand short-term credentialing and support services to additional counties in the Black Belt. This will increase and diversify career pathway opportunities for the automotive sector (i.e., entry-to-employment and entry-to-postsecondary education) within the region.

3.3 Tuscaloosa County Economic Development Authority (TCEDA)

The TCEDA is one of West Alabama's job creation engines, bringing over \$9 billion dollars of new investment and nearly 3,500 jobs to Tuscaloosa County. For nearly 30 years, the TCEDA has played a pivotal role in the recruitment of respected automotive brands such as MBUSI, Brose, Lear, and SMP^[7]. TCEDA will use its expertise in industrial site development, recruitment, expansion, and retention to enhance equitable economic investments in the region tailored to the needs of the automotive industry.

3.4 Community Colleges Shelton State, Bevill State & Wallace Selma

Shelton, Bevill State and Wallace Selma cover a combined area of over twelve counties and are part of the Alabama Community College System (ACCS), which includes a total 24 two-year colleges. Each college is a key education and workforce training provider in WWA. Shelton State is one of the largest two-year colleges in Alabama. All three colleges have extensive partnerships to industry and work closely together with companies in the region to offer apprenticeships and customized education programs (e.g., Shelton State Mercedes-Benz Mechatronics program). They will work with other colleges to expand additional advanced manufacturing training programs across WWA and especially the Black Belt.

4 PROJECTS

Representing an incredible opportunity to create transformative economic prosperity and growth, DRIVE's cooperatively designed set of eight component projects makes strategic investments across WWA.

4.1 Innovation and R&D, and Company Creation & Recruitment

DRIVE's investment in *Innovation and R&D* and *Company Creation & Recruitment* will amplify local and regional economic competitiveness through the translation of research to commercialization, enhances by the support of private and public partnerships.

PROJECT 1: TUSCALOOSA INNOVATION DISTRICT (TID)

DRIVE will enhance the TID as the region's central innovation hub. This includes: the creation of the Mobility & Power Campus, including the AMP Center and its related National Training Center for Electric Vehicle Infrastructure and Technology (NCT), to amplify industry and state efforts to establish an electric vehicle economy in WWA; the founding of the Alabama Learning and Workforce Research Institute (ALWRI) and its related data center to sustain the outcomes of DRIVE in perpetuity by better linking and aligning the needs of employers with the training and educational programs at the K-12 and post-secondary levels through research, partnerships, consortiums and implementation science; and the construction of a 100,000 SF building pad for company recruitment and planning.

TID and DRIVE will create 5,000 jobs directly from innovation, entrepreneurship and economic development activity and an additional 50,000 jobs in the WWA regional cluster during the next 10 years. DRIVE will increase the Black Belt's labor participation rate of 37% to the state's average of 57%^[8].

4.2 Talent Development

DRIVE's investments in *Talent Development* will cultivate the expertise needed to drive cutting-edge research and diversify the talent pipeline of local workers and students.

PROJECT 2: CREDENTIALING ALABAMA

DRIVE will scale short-term credentialing initiatives to implement career technical education (CTE) programs with modern manufacturing curriculum in high schools; to administer entry-level skills training for citizens ("Ready to Work") with limited education and work experience in community colleges; and expand advanced manufacturing apprenticeship programs region wide. This will create sustainable pathways to employment and education in the automotive field.

This will add CTE programs in 20 high schools enrolling 5,000 students; scale Ready to Work programs to a minimum of 5 community colleges (and 8 campuses); and add 15 apprenticeship programs training 100 students yearly.

PROJECT 3: SMART AND CONNECTED RURAL MANUFACTURING (SCRM)

Through the University of Alabama's Initiative on Manufacturing Development and Education (Alabama IMaDE), DRIVE will develop a new, smart and connected paradigm that empowers rural manufacturers and allows them to stay competitive in the new era of Industry 4.0 (I 4.0) and beyond. This includes the development of educational activities around innovative technologies such as I 4.0 and Industrial Internet of Things; providing recruitment for trained individuals; and designing a prototype of rural manufacturing units (RMUs) to create a platform for people in rural areas to access and learn about high-tech equipment.

SCRM will establish a RMU in all 28 counties in WWA; four RMUs will launch in the 1st year with a target enrollment of 250 students.

PROJECT 4: PIPELINE TO POSTSECONDARY

Create a robust postsecondary pipeline by scaling the Alabama College Transfer Advising Corps (ACTAC) to make transfer opportunities from 2-to-4-year institutions accessible to students in rural communities, and (2) by increasing funding opportunities for community colleges in the Black Belt to provide workforce training and affordable education through the scaling of the Trade Adjustment Assistance Community College Career Grants (TAACCC) program and the launch of a Rural Grants Boot Camp (RGBC), that equips colleges with grant writing skills.

This will add one transfer advisor each to a minimum of 5 community colleges over the project period; and increase transfer success rates in the region by 15%.

PROJECT 5: RECRUITMENT & OUTREACH (R&O)

DRIVE will launch the R&O initiative that expands employment opportunities by scaling Career Connect & Job Connect (career exploration/linking tools) and employment bridge programs into the Black Belt; and introduces youth to employment and postsecondary opportunities in the automotive sectors through career and college fairs in high schools.

R&O will connect 800 citizens to job opportunities and add career fairs in each 2-year college in the 1st year. It will conduct 60 outreach events, engage and follow-up with 10,000 citizens, and connect 4,000 citizens over 5 years.

4.3 Community Development & Sustainability

DRIVE's investment in *Community Development & Sustainability* will provide the robust physical environments and supportive services necessary for innovation economies to thrive.

PROJECT 6: REVOLVING LOAN PROGRAM

DRIVE will partner with regional Community Development Financial Institutions (CDFIs) and employers to create a revolving loan fund for low-income citizens to purchase used cars to address the issue of affordable transportation access and its impact on finding and retaining employment in rural communities.

This will provide 100 used cars to eligible citizens in the 1st year; and a total of 800 over the project period.

PROJECT 7: CHILDCARE

DRIVE will launch a childcare training program that increases the number of childcare workers trained by local community colleges; opens more facilities led by entrepreneurs in rural areas; and assists in providing affordable childcare to under-served populations, to mitigate the impact of limited childcare access to employment and retention.

This will increase graduates of childcare programs by 15% and open a minimum of 4 childcare facilities in each WWA county (28) over the project period.

PROJECT 8: VITAL

DRIVE will launch a behavioral health program that identifies citizens engaging in alcohol, nicotine and other drug use and with co-occurring mental health needs; and provide care coordination and related intervention and treatment to address the mental health issues that keep citizens from getting and retaining employment. VitAL will add 200 participants in the 1st year.

5 MATCHING FUNDS

For the implementation phase, several sources of matching funding will be available through coalition members and industry partners. The partners' commitment to the projects are illustrated

by their Letters of Support.

- Expansion of the TID is supported by the state with \$16.5 million; and MBUSI and Alabama Power Company (APC) with \$1.5 million in form of in-kind contributions.
- DRIVE's talent development projects are supported by WAW with \$2 million.
- DRIVE's community development projects are expected to be financially supported by employers and education providers (i.e., ACCS). Additionally, APC and the state will allocate over \$129 million to broadband expansion, from which the project will benefit, which will facilitate the success of DRIVE.

6 BARRIERS TO IMPLEMENTATION

DRIVE's success will accelerate collaboration among coalition members and industry partners from the region's automotive sector to mitigate longstanding barriers to entering and staying in the workforce. Effective communication through a thoughtful, culturally sensitive approach capitalizes on regional strengths. The trust and good communication gained in one program area in these small communities infuse throughout other initiatives, as we increase opportunities for skill development needed for sustainable employment.

7 TIMELINE

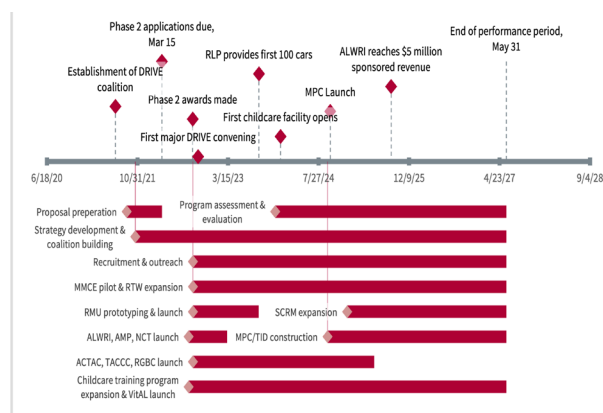


Figure 2 — Project timeline

8 NOTES & REFERENCES

- [1] The Alabama Black Belt has no formal regional boundaries. DRIVE follows the definition of The University of Alabama Education Policy Center that includes 24 counties. See Figure 1.
- [2] Azok, D. (2021, January 20). Alabama's auto industry primes for growth milestones in 2021. Made in Alabama. Retrieved October 15, 2021, from <https://www.madeinalabama.com/2021/01/alabamas-auto-industry-primers-for-growth-milestones-in-2021/>.
- [3] The Tuscaloosa News. (2021, September 14). Electric Vehicle Battery Recycler announces New Plant for Tuscaloosa County. Tuscaloosa News. Retrieved October 15, 2021, from <https://www.tuscaloosanews.com/story/news/2021/09/14/li-cycle-electric-vehicle-battery-recycler-announces-plant-tuscaloosa-county/8315422002/>.
- [4] Jones, A. (2021, July 23). Transformative UA, Alabama Power, Mercedes Initiative Moving Forward with State Support. University of Alabama News. Retrieved October 15, 2021, from <https://news.ua.edu/2021/07/transformative-ua-alabama-power-mercedes-initiative-moving-forward-with-state-support/>
- [5] Azok, D. (2021, January 20). Alabama's auto industry primes for growth milestones in 2021. Made in Alabama. Retrieved October 15, 2021, from <https://www.madeinalabama.com/2021/01/alabamas-auto-industry-primers-for-growth-milestones-in-2021/>.
- [6] Automotive. Amazing Alabama. (2019, September 16). Retrieved October 15, 2021, from https://amazingalabama.com/industries/automotive/?doing_wp_cron=1634258406.4332280158996582031250.
- [7] Advanced manufacturing. Tuscaloosa County EDA. (2021, July 12). Retrieved October 15, 2021, from <https://tcoeda.com/target-industries/advanced-manufacturing/>
- [8] Archibald, R. (2020, September 15). Black Belt far behind rest of nation in work force participation. al. Retrieved October 15, 2021, from <https://www.al.com/news/2020/09/black-belt-far-behind-rest-of-nation-in-work-force-participation-black-belt-2020.html>.