

A USED A BBBRC Phase 2 grant will vastly transform the 11-county Detroit region into the **Global Epicenter of Mobility (GEM)**, building on existing automotive expertise to create an inclusive and sustainable advanced-mobility cluster. This grant and the additional investment it will spark will enable the region to launch into a second century of advanced mobility prominence while deeply embedding economic equity into every aspect of industry cluster growth. The multiple facets of our strategy--talent transformation, company support, proving and testing, site readiness, and intelligence--fuel progress in the others, creating a brilliant future for the advanced mobility industry and, in turn, all people living and working in the region.

Advanced mobility includes the multi-dimensional movement of people or goods and the products, materials, processes, and technologies that support it. Advanced mobility supports improved social and economic movement, connection to essential resources, and naturally integrates a focus on inclusion and connectedness within and across communities. Advanced mobility presents a gateway to transformational **economic growth**, security, and regional competitiveness through job creation, talent development, and new capacity that attracts public and private investment. The **GEM coalition's vision** is to leverage the region's automotive, engineering, design, innovation and manufacturing strengths, leadership, and assets as elements of a smart, secure, sustainable, and inclusive *advanced-mobility* cluster.

Advanced mobility's economic opportunity is infinite. The global electric vehicle (EV) market is expected to grow from \$287B in 2021 to \$1,318B in 2028 at a compound annual growth rate of 24% (Fortune Business Insights, 2021). To maximize this potential, GEM will leverage the region's 400+ unique **assets** for job creation and economic opportunity that will extend locally, nationally, and globally, while charting a more sustainable future.

While the region has struggled with diversity, equity, and inclusion (DEI), GEM has adopted a "radical inclusion lens," prioritizing purposeful engagement of historically excluded communities (HEC) and intentional inclusion, **equity**, and accountability strategies to hasten inclusive wealth creation. USED A's investment will ensure that GEM's multi-faceted work allows the region's diverse heritage to shine, supporting one brilliant vision for the future.

Since August 2021, Detroit Regional Partnership Foundation (DRPF) engaged 136 **coalition members** (for a full list, see letters of support and commitment) in steady-state and responsive economic resiliency planning, holding weekly work group sessions and biweekly coalition meetings to elicit a whole-economy response, identify immediate economic needs, and conduct collective visioning and prioritization to guide the region's proposal. Southeast Michigan Grants Coalition (SEMGC)-a DRPF subsidiary, serves as the lead institution. Key coalition members include component project *co-recipients*: SEMGC, University of Michigan Economic Growth Institute (EGI), TechTown, Southeast Michigan Community Alliance (SEMCA), State of Michigan Office of Future Mobility and Electrification (OFME), DRPF, and the City of Detroit/Detroit Brownfield Redevelopment Authority. *Sub-recipients* identified in projects are also coalition members. A 20-member *Regional Advisory Council* (RAC), a subset of the coalition, provided objective, regional perspective for the application. With decades of federal grant experience, RAC serves as a grant development- and administration-oversight committee bringing diverse perspectives and competencies (e.g., talent, economic development, entrepreneurship, urban, rural, suburban, and HEC voice). A 39-member *Industry Advisory Council* (IAC), consisting of the Detroit 3 automakers, Toyota, and representation from such technology areas as electrification, EV range extension/batteries, drones, navigation, defense and cybersecurity, counseled through meetings, surveys, and work groups. See *Private Sector Participation*. This proposal directly aligns with SEMCOG CEDS strategies: 1) Creating and Marketing Quality Places; 2) Anticipating Demands for Land Use; 3) Investing in Critical Infrastructure; 4) Fostering a Competitive Business Climate; 5) Advancing Technology, Innovation, and Entrepreneurship; and 6) Preparing and Connecting Talent with Jobs. For CEDS alignment info, see SEMCOG and R2PC letters. Overarching **metrics of success** and evidence-based benchmarks for phase 2 (P2) include (A) 5% higher-than-projected # of quality (as defined by EDA) mobility- industry sector related **jobs**, with metrics established and tracked for mobility industry sector and by race, gender, and geography (EMSI), (B) 7% increase in mobility-related industry wage growth (EMSI), (C) 7% gain in mobility-related GDP growth (IMPLAN), and (D) 25% increase in mobility-related venture capital (VC) investment in 4 years with 1,100 related **jobs** created from startups in 5 years. **Timeline**: 48-month grant period (Oct '22-Oct '26), with 6 month ramp up & 12 month end-of-grant focus on alternate funding sources and sustainability methods. Construction to be completed within 14 months.

Project Title and Description:	Co-recipient	CEDS or equivalent	EDA Investment Priority Alignment
MOBILITY TALENT & TRANSITIONING WORKFORCE (Talent)	SEMCA	SEMCOG, Genesee, I-69, and R2PC CEDS, MI New Economy Plan	Recovery and Resilience (R&R), Equity (E), Workforce dev. (w), Exports and FDI (E&F), Manufacturing (M), Tech-based econ. dev. (TBED)
Description: Connects, aligns, and includes existing programs, people, and resources to create a unified approach to advanced mobility talent and workforce development: (1) employer-facing network will provide concierge/on-demand services to manage evolving talent needs, (2) talent-facing network will manage training opportunities, wraparound, and other aligned services for existing and underrepresented workers, (3) service provider network and systems integration will ensure higher education, training funds, and community, non-profit, and economic-development assets and programming are aligned and efficient. Supports success: Provides talent to design, engineer, manufacture, and code solutions that industry needs, replacing retiring workers and removing barriers.			
STARTUP AND EARLY-STAGE COMPANY GROWTH SUPPORT (MAIN)	TechTown	SEMCOG & R2PC CEDS, MMSDC 333 Years to Parity	R&R, E, M, TBED
Description: Support for startup and early-stage mobility businesses leading to a regionally-distributed mobility acceleration network that will raise visibility for and connect these businesses to wrap-around support, including practical assistance, technical consulting, customer matchmaking, software and hardware entrepreneur-in-residence opportunities, capital, and each other, as well as to university-based commercialization services. Supports success: Helps fill current and future gaps in the mobility value chain, fosters ongoing technology advancements, grows jobs/investment in the region			
LEGACY COMPANY SUPPORT - TRANSFORMATION TO EV (Legacy)	UofM EGI	SEMCOG & R2PC CEDS, Industry & State Commit to Electrification	R&R, E, M, TBED, E&F
Description: Creation of an Advanced Mobility Supply Chain Transformation Center to assess small to medium sized manufacturers' unique needs, connect them with the technical assistance needed to stabilize, diversify, & grow, or responsibly succeed in ownership transition as they grapple with rapidly changing technologies and competition. Supports success: Provides region's legacy companies with assessment, coaching and resources to transition to electrification.			
PROVING, TESTING, DEMONSTRATION	OFME	SEMCOG CEDS, RTA Master Plan	R&R, E, TBED
Description: Systematically document HEC mobility pain points, custom-fit technology solutions to address them, and run constrained real-world pilots to gauge business model viability, challenges, barriers, and user feedback. This project will also increase access and capacity of our region's world-class testing and proving assets to support mobility innovators by lowering costs and barriers to entry, resulting in validation of new mobility technologies. Supports success: Test and deploy new solutions to address HEC mobility needs; Increase access to regional testing environment, advancing new mobility technologies.			
INDUSTRIAL SITE READINESS	DRP	SEMCOG CEDS	R&R, M, Environmentally-Sustainable Dev. (ESD)
Description: Address the Detroit region's dearth of industrial sites ready for mobility users, by readying brownfield, greenfield and agricultural sites best positioned to secure and support near and mid-term mobility projects - creating new jobs, investment, and tax base for our communities; prioritizing and readying sites near HEC populations to increase access to mobility companies and jobs and reducing transportation barriers. Supports success: Ensures companies have the space they need to expand and encourages investment and job creation in HECs.			
JUNCTION AVE SITE CONSTRUCTION	Detroit/DBRA	SEMCOG CEDS	R&R, M, ESD
Description: Ready a vacant property, the Junction Avenue site, on Detroit's west side into a multi-tenant facility for mobility innovation through sewer improvements and vacating public right-of-ways for a 26.3-acre, ready industrial site. Supports success: Ensures companies have the space they need to expand and produce essential components and products in an industry dense historically-excluded location.			
CENTRAL CAPACITY (GEM Central)	SEMGC	SEMCOG, R2PC CEDS	R&R, E, TBED
Description: Serves as the unified body responsible for helping the region's existing mobility ecosystem become better connected, smarter, more inclusive, and quickly adapt to change. Acts as the central convener, ensuring alignment across projects, governing councils, industry stakeholders and coalition partners. Creates efficiencies by centralizing technical services, internal and external communications, research and data support, metric tracking, and DEI expertise in support of all six component projects. Supports success: Elevates all projects by creating connective tissue, aggregating grant supports and services, creating a common base of knowledge, and growing an inclusive network of partners and initiatives.			

Complementary initiatives increasing feasibility and regional impact: **Talent:** State of Michigan USED A Good Jobs grant application (mobility/electrification, IT, Broadband)(Pending), MiREV (employer-led knowledge and skills approach to mobility/electrification), Detroit Regional Chamber career pathways initiative with 5 community colleges & support from Ballmer Group & Ralph C Wilson Jr Foundation, MI Central Station digital talent academy, Michigan Mobility Institute, Detroit Workforce Funders Collaborative. **Startup:** UofM/WSU software and transportation commercialization programs, Invest Detroit Venture Fund, St. Clair County EDA incubator construction, Oakland County Revolving Loan Fund, Strategic Outreach and Attraction Reserve Fund legislation, SBDC; UofM-Flint EDA University Center for Community & Economic Development, State Small Business Credit Initiative **Legacy:** State of Michigan EV purchase and charging equipment incentive, Procurement & Technical Assistance Centers, Trade Adjustment Assistance Fund, Industry 4.0 Knowledge Center, MI Manufacturing Tech Center (Manufacturing Extension Partnership); MI and national energy efficiency standards & goals **Proving and Testing:** Michigan Air Mobility Corridor, Michigan Mobility Funding Platform, City of Detroit Transportation Innovation Zone, Wireless EV Road Charging Pilot (first in world), 5- state EV charging compact, 40 mile Detroit to Ann Arbor connected and automated vehicle (CAV) corridor **Site Readiness and Junction Ave Construction:** City of Detroit ARPA funds use for industrial land readiness, Michigan Strategic Site Readiness Fund (\$1B legislation) **GEM Central:** Current DRP research, Michigan Central Station Innovation District, Bedrock Innovation District and World Economic Urban Innovation Center, TechTown Innovation District, University of Michigan Detroit Center for Innovation, 8 of Michigan’s regional Smartzones.

Project location and region: **Primary service area:** 11-county area of Genesee (26-049), Lapeer (26-087), Lenawee (26-091), Livingston (26-093), Macomb (26-099), Monroe (26-115), Oakland (26-125), Shiawassee (26-155), St. Clair (26-147), Washtenaw (26-161), and Wayne (including City of Detroit) (26-163). Michigan Congressional Districts that fall within the application boundaries include MI-04, MI-05, MI-07, MI-08, MI-09, MI-10, MI-11, MI-12, MI-13, and MI-14. The region comprises several major urban core areas, including the cities of Flint (64% HEC population), Pontiac (78% HEC population), Detroit (87% HEC population), and numerous other communities (including rural areas in Lenawee, Lapeer, and Monroe counties) facing high poverty concentrations, as well as the Downriver Detroit area (a coal community adversely affected by two plant closures). Funds will serve all communities within the region, including urban, rural and suburban communities, with a focus on “connective tissue” and HECs.

Communities served and target participants include HECs, the region’s workers, startup and early-stage mobility companies, small to medium legacy automotive companies with the need to pivot into the mobility ecosystem, landowners that can be made ready for industrial development and expansion, community-based organizations, entrepreneurship support organizations, innovation providers and supporters like SmartZones, community colleges, universities, and institutions that make decisions about how to assist businesses and people within the region. Some projects (proving and testing, talent, & central capacity project’s DEI team) will directly engage data-identified distressed communities to address equity, gain insight and elevate community voice regarding resident needs. Each project defines DEI efforts and targets HECs.

Regional Assets: Analysis for the P1 application identified 400+ regional assets. The existing auto industry and emerging mobility capabilities are critical assets to the proposed regional growth cluster. The region is home to the Detroit 3 automakers: Ford Motor Company, General Motors, and Stellantis. Additionally, 23 other automakers (e.g., Toyota, Nissan, VW) and 96 of the top 100 original equipment manufacturer (OEM) suppliers have major operations in the region, including a high concentration of R&D. These assets give the region a unique capability to lead the nation in advanced mobility compared to other regions of the country. The region can support the entire lifecycle of a mobility products, but there is need for assistance in navigating and coordinating these resources. While it is the place the assembly line was created, the region is now a proven location for brain power, specializing in the engineering, design, and development of advanced technologies. Strengthening our ability to involve others and sustain the cluster post-award, the region has already begun transitioning to advanced mobility, with ongoing mobility assets and projects, including the American Center for Mobility, MCity, Detroit-Ann Arbor Connected and Automated Vehicle Corridor, Detroit Wireless Charging Corridor, Ford/Michigan Central Station Public-Private partnership, Council of Future Mobility

and Electrification, MiREV, 5-state Charging infrastructure MOU, Detroit Smart Parking Lab, and Michigan-Ontario Smart border initiative. All of these projects have significant public and private investment and partnerships. See “work conducted between P1-P2” for more information.

Distress: The region is home to 5.4M people (54% of Michigan’s population) and covers 7,104 square miles (13% of the State’s land mass). Using data from STATS America’s Economic **distressed** database, it qualifies as a **distressed** community with economic injury from the coronavirus pandemic that constitutes a “special need.” City of Detroit had the highest unemployment rate of the 50 largest U.S. cities at 22.4% in 2020 (NERDE). The region shed nearly 224,000 jobs, 9% of total jobs (EMSI). Despite a lull in infections, the pandemic continues to wreak havoc on the regional economy: In February 2022, Canadians protesting mask mandates shut down the region’s two international bridge crossings, causing an estimated \$145M in lost direct wages (most in Michigan and Ontario), with an additional \$155M in losses to automakers (Anderson Economic Group Analysis, 2/14/2022). Beyond COVID, examining health, poverty, and social mobility indicators, GEM is home to two of the most deeply disadvantaged communities in the United States. A ranking of the nation’s 100 most disadvantaged counties and cities ranked Flint and Detroit as the 15th and 18th most disadvantaged respectively, but 1st and 2nd looking at city-level data only. (UofM Poverty Solutions, Princeton) Economic forecasts estimate that the region could lose 25,000+ jobs in the auto sector. As a result, the Detroit region economy, as a whole, could lose 100,000+ jobs (\$8B payroll losses and \$38B in lost GDP output). This could cause a ripple effect across the nation resulting in 513,814 jobs lost (\$39B payroll losses and \$170B in lost GDP output) (IMPLAN). Most of this decline is attributed to the transition from internal combustion engines (ICE) to electric vehicles (EV) and automation. Moreover, DTE and Consumers Power are transitioning away from coal-fired plants, with closure of River Rouge, and anticipated shuttering of Trenton Channel, Monroe, and Belle River power plants, which will mean another 1,300 regional jobs lost. Despite its challenges, GEM proposes to support and elevate the Detroit region’s emerging mobility cluster to capture future business growth and job creation. The Detroit region’s advanced mobility cluster can be a catalyst to an inclusive global mobility hub, as approximately 30% of the current mobility related occupations (SOC) are filled by a person of color (POC). However, this concentration is primarily in production occupations that often lack meaningful advancement and are most at risk of automation. GEM presents an opportunity to set the standard for both employing and advancing HECs through career-pathways, coordinated barrier removal, new business formation and expansion, and other innovation with potential to reverse decades of economic decline exacerbated by the pandemic.

Private sector participation: As evidenced in **industry leadership** letters, private sector participants have committed to hiring 17,389 individuals and \$5,429,810,000 of investments within the region, increasing the overall **feasibility** of the GEM initiative. Countless outreach efforts engaged industry through the P1 and P2 application development to allow the DRP team and coalition members to gain insight into industry needs and trends and receive feedback regarding grant direction. Legacy and newer-mobility companies were actively involved in further shaping the vision, goals and projects included in this application through individual conversations, an industry survey, representation on a 39-member GEM Industry Advisory Council (IAC), participation in a MICHauto listening session (~20 industry participants), and a December 2021 workforce project headed by the Michigan Energy Innovation Business Council (22 participants). These partners will remain engaged during P2 through an industry-led GEM Advisory Council and in research and DEI committees. The DRP also convenes a Public-Private partnership and a leadership circle, which has been and will continue to be engaged.

Jobs & Economic Growth: From 2010-2020, firms have invested \$10.6B+ in EV & CAV-projects in Michigan, nine times more than Texas and 25 times more than Illinois (CAR data/DRP analysis, 2022). The below table confirms that the GEM region will be home to an imminent wave of mobility-related electrification and autonomous technologies that ultimately will further transform the region and world.

Organization	Direct commitments
Ford Motor Company	\$20B investment to convert factories worldwide to EV production over the next 5-10 years
Stellantis	\$35.5B through 2025 to support EVs and new software/technologies (\$4.5B in Michigan plants, 6,500 new jobs); \$900M retooling for energy efficiency of Jefferson North (Detroit) plant, 1,100 jobs

<i>General Motors</i>	\$4B Orion Township assembly plant expansion to build EVs, 1000 retained-UAW union jobs (2,350 jobs anticipated, \$27/hour), \$2.2B in Detroit and Hamtramck to retool Factory Zero to build EVs
<i>Toyota</i>	Toyota Research Institute – a \$1B partnership launched in 2016 with University of Michigan and Massachusetts Institute of Technology (MIT); 38 research projects, 69 patents; \$15M in 2022 to continue work with UM; \$2.6M for closed-site testing at American Center for Mobility.
<i>DTE Energy</i>	DTE is part of a 50-member utility company coalition committed to building a coast-to-coast, fast charging network along major travel corridors.
<i>Our Next Energy</i>	Grew from 1 to 85 people in 18 months (will double in one year). Planning a 10+GwH factory -looking at a new disruptive model that is more equitable and net zero carbon – will come with 1,000+ jobs, exploring site selection
<i>May Mobility</i>	\$83M regional investment for rapid deployment of Toyota’s autonomous-ready platforms, increase in engineering staff, expanding global customers
<i>Magna</i>	\$70M in an electric vehicle-structures facility and battery plant in St. Clair County creating a new 345,000 sq. f. facility and 300 new jobs.
<i>Google/ MI Central Station</i>	\$726M invested to date w/union construction; 5,000 jobs anticipated; \$126 M innovation district; accessibility public-private partnership with State and City of Detroit for transportation opportunity zone
<i>Philanthropy</i>	William Davidson Foundation (Executive-on-loan, ~\$500,000 in aligned funding for entrepreneurship grantees); Ballmer Foundation (up to \$6.75M for mobility career pathways support, 4- year institutions); Ralph C Wilson Jr. Foundation (\$5M for career pathways support, community colleges); Kresge Foundation (EDA cash-flow assistance reimbursement fund)

Italics indicates a commitment to participate in an industry-led GEM Advisory Council meeting. See *Letters of Commitment attachment* in the table of contents for additional commitments.

Additional P2 industry engagement strategies: (1) GEM will engage the leaders of existing mobility industry councils and associations such as Michigan Minority Suppliers Development Council, MICHauto, OFME, Michigan Manufacturing Technology Center, Center for Automotive Research (CAR), MBEIC, and Original Equipment Suppliers Association (OESA), to quickly collect information on industry needs, gaps, trends, threats, activities underway, areas for alignment, etc. (2) DRP, through this P2 EDA grant, will continue to collect a diverse set of industry input, including information on mobility-adjacent industries. The work will engage small and medium employers, minority owned firms, and urban, suburban, and rural suppliers.

Sustainability: The GEM coalition’s proposed **sustainability** plan begins with creation of a sound governance and convening structure that enables long-term communication and alignment of stakeholders, while infusing diverse voices. Shared ownership and outcomes will be fostered. Component projects promote cultural shifts, integration of activities into existing, strong organizations, a focus on revenue generation, and increasing policy alignment. USED A dollars will align and address the more critical, emerging, and equitable elements of the advanced mobility ecosystem, supporting a transformative effect that could not happen but for these funds. GEM Central will function as a repository, sharing both the failures and success of all projects, so this work can iteratively grow beyond the grant funding. With GEM’s current alignment with the mobility industry, philanthropic community, Governor’s administration, state and federal legislators and regional economic development agencies, the right formula is in place to deliver a sustainable, long-term program. The following are project-specific sustainability measures:

Talent: Employer-facing services will require phased employer-funding support and cost-share models. Identified employer champions are expected to carry this work forward, while systems change in postsecondary institutions, once developed and adopted, can persist indefinitely. Philanthropic support and integration into government and institutional policy and practice are already key features of this effort and will be further explored. **Startup and Growth:** This model project will build and align the startup and early-stage system, create shared tools and processes, build deeper expertise and capacity relevant to mobility companies, and aid the co-recipient and partners in managing and measuring outcomes. These program elements, once developed, tested, and refined, can last well beyond this grant. Partners will explore fee generation from investments and service offerings. **Legacy and Transition – Mobility Supply Chain Transformation Center (MSTC):** The primary partners in this effort have deep longevity in

the community, including a University of Michigan-based institute and MMTTC, a state MEP program. Both are accustomed to sustaining and constantly reinventing programs through a combination of public and private-finance models. Partners anticipate that the next four years will be pivotal for legacy companies needing to shift in new directions, allowing MSTC to address a meaningful portion of transition needs during the award timeframe. **Testing, Proving, Demonstration:** Proving/testing support and real-world demonstration projects that meet residents' mobility needs. The testing/proving track is a demand-based model that inherently creates incentive for repeat use over time of a vast network of regional testing/proving capacity. Many testing and proving sites already generate customer revenue, sustaining them over time. However, this project also introduces earlier-stage companies to these services, improving access and affordability. It also will help mobility-companies align their offerings with community-demand and improve their products and services based on the results of real-world deployment. With proven success, both approaches could be integrated into local/state policy efforts and/or supported through philanthropy, with a lens on social impact and charitable purpose. As a state office, OFME will be able to leverage automotive industry relationships and other private sector efforts to scale successful pilots. Upon demonstrating success, these initiatives may be integrated into state policy and budgeting. **Site Readiness:** The DRP will continue to fund and staff the VIP Program post award with internal dollars but will also seek additional private capital, grant dollars and in-kind support to operate and evolve the program, as the industrial sites landscape evolves. Further, the State of Michigan continues to appreciate the need to support site development (hence a recent \$1B legislative action to support two crucial development projects). We anticipate that the successful implementation of the VIP Program during the grant period will set the foundation for robust and sustaining fundraising and policy support. **City of Detroit/DBRA Junction Avenue Site Construction:** Sustained construction activities are not needed beyond the deliverables of this project for this site. **GEM Central Capacity:** Project leads will explore an agreement with co-recipients to include GEM Central as a part of future, cluster-related grant awards. Engagement with the philanthropic community will identify core GEM Central activities, such as DEI and inclusion of HECs, that best align with their funding priorities. Partners also will explore engagement with local, state, and other governments, a membership model, and a revenue-generation model related to research and cluster-intelligence activities.

Engagement with community-based organization and labor unions: Engagement with community-based organizations (CBOs): CBOs are built into the fabric of several component projects and GEM governance. The talent project places a heavy emphasis on barrier removal/success support for individuals participating in post-secondary career pathways, workforce training, and new mobility employment. BBBRC will allow GEM's workforce partners to leverage other state and federal funds for training and career-pathways participants to CBO-provided services, such as housing, transportation, childcare, or basic skills remediation. For example, Upwardly Global will work directly with CBOs that provide refugee and immigrant resettlement support. Testing and Proving *Community Pilots* will work with CBOs to engage residents to identify community, mobility pain points. GEM Central will hire a centrally available DEI officer, who will help extend related technical assistance and support to partner-projects, including engagement of HECs, leveraging inclusive-design methodology, community conversations, focus groups, surveys, etc. CBOs will be a crucial part of informing and implementing this work. A strong CBO presence is expected on the DEI committee that is part of the GEM Central project. An initial meeting of DEI stakeholders during phase 1 included 21 organizations with 6 CBOs. GEM will assess integration of CBOs and labor organizations, using a social network analysis to benchmark and measure improved connectedness over time.

Labor organizations and labor standards: A representative of the United Automobile, Aerospace, and Agricultural Implement Workers of America (UAW), has actively participated in and will continue to engage as a member of the Regional Advisory Council. The UAW is the most prevalent labor organization in the region with over 200,000 active members in their corresponding regions (1, 1A, 1D) representing members from Ford, GM, Stellantis, engineering and design firms in the auto and defense industries, skilled tradespersons, Michigan health care facilities, academics at Wayne State University and Macomb Community College, state and county offices and facilities among others. UAW plans to participate in the Research Committee for the GEM Central project. This labor union is actively working with OEMs to address training

needs and identify positions that will be needed in the mobility economy. It is anticipated that UAW involvement in this initiative will contribute to further incorporation of strong **labor standards and practices** affiliated with GEM projects. Partners conducted outreach to UAW, International Brotherhood of Electrical Workers, Michigan Education Association, and American Federation of Teachers. Under Phase 2, DRPF will deepen this engagement. For the City of Detroit Junction Avenue Site, the selection of contractors will follow City of Detroit procurement guidelines mandating companies offer prevailing wage positions to workers and that minority and disadvantaged-businesses are meaningfully engaged throughout the vetting process. In 2018, DRPF engaged Brookings Institution to advance its principle of providing “deep prosperity and **jobs** for all.” The work identified occupations paying at or above regional sustaining wages with health care benefits but not requiring a bachelor's degree – pathway jobs. The DRPF has committed to working with companies that create both high-wage and/or pathway jobs and want to expand into the region, with a goal of creating 12,000 pathway jobs by 2030. Through the *talent transformation* component project, GEM intends to deepen outreach to and engagement with labor organizations to ensure representation of worker voice and support talent pipeline development and creation of quality jobs (as defined by EDA).

Equitable distribution of cluster benefits: The adoption of mobility as the region’s cluster focus represents an intentional commitment to **equity** and inclusion: mobility is an essential ingredient for connecting to resources, services, jobs, and other people within and across communities. Too often, HECs lack effective mobility solutions or the proper voice to inform development of this essential need. GEM partners deliberately defined mobility to include both the advanced technology and social and economic mobility aspects of the word. Equitable impact is fully integrated into the pillars, themes, and projects of this proposal. This, along with a mobility-related focus on clean tech and electrification, aligns with Justice40 principles.

The cluster’s benefits will be shared across all affected communities—urban, suburban, and rural—and provide benefits to existing residents, with special emphasis on HECs, including different race/ethnic groups, LBGTQ+, veterans, women, the elderly, and the differently-abled. While this application and grant cannot erase decades, and even centuries, of systems-based oppression, it can explore **equity** and inclusion topics, seek input from **distressed** communities, and strive deliberately and with great authenticity to create a much-needed space and opportunity and belonging within the advanced- mobility economy for those who have been systematically denied a full opportunity to participate in aspects of economic prosperity.

GEM partners commit to “radical inclusion” principles, including a trauma-informed approach and deliberate recruitment, development, and support of HECs. GEM Central will hire a DEI champion, who will lead an advisory body and support diverse resident engagement and inclusive design for all projects. A DEI Council will also be formed, with the chair a voting member of the SEMGC Board, to inform and challenge all facets of DEI work and outcomes.

Overall, five principles and systems will drive P2 **equity** strategy: (1) Decision-making bodies will provide seats at the table to diverse stakeholders. (2) Co-recipients will prioritize outreach and engagement towards HECs leveraging inclusive design and engagement models. (3) Partners will prioritize DEI in hiring consultants and staff through the selection and procurement processes. (4) All component projects have and will track DEI metrics and outcomes. (5) All projects will incorporate and share DEI successes and lessons learned.

GEM Central will convene a DEI Council both prior to the P2 award notice and throughout the P2 grant period. This work group will assist in the development and implementation of a comprehensive DEI strategy. The GEM Central project will ensure **equity** by dedicating staff and consultants to assist each project team with the integration of “radical inclusion” strategies, host a centralized DEI library, and supply mobility-related data and mapping services to specific HECs. Examples of project specific equitable distribution measures include: **Talent Transformation:** Enables the retention and growth of an upskilled, advanced, and diverse talent workforce that is distributed across every county of the Detroit region. **Startup & Growth and Legacy & Transition:** Efforts will be built and targeted towards business owners from and within HECs, and procurement of vendors will prioritize HEC businesses; **Proving & Testing:** Community Pilots program will leverage an ‘innovation lab’ model to systematically document HEC mobility pain points and address via custom technology solutions; **Site Readiness:** Leverages HEC-population density as a key factor in selecting sites for follow on support – reducing physical distance to jobs for diverse candidates.

Outcomes: GEM’s overarching goal is to leverage the region’s automotive, engineering, design, and manufacturing strengths, leadership, and assets as elements of a smart, sustainable, and *inclusive* advanced mobility cluster. Overarching proposed specific metrics and evidence-based benchmarks for P2-proposed projects include **(A)** a 5% higher-than-projected number of quality mobility industry sector related jobs (EMSI data), with metrics established and tracked for mobility industry sector and by race, gender, and geography, **(B)** a 7% increase in mobility related industry wage growth (EMSI data), and **(C)** a 7% gain in mobility related GDP growth (IMPLAN). Benchmarks will be determined at the time of award using EMSI and IMPLAN projection data. Partners also will measure success by examining growth in mobility-related degrees and credentials, # of mobility technologies commercialized, new companies launched, and new mobility-related investment in firms and distressed communities. This GEM logic model indicates an overview of the inputs, outputs and outcomes leading a successful regional growth cluster:

Initial Baseline Conditions	Inputs	Outputs and Capacity Outcomes (Short term)	Realized Outcomes (Long term)
<p>Regional automotive cluster/globally competitive automotive concentration</p> <p>Shifting market demand-switch from ICE to EV</p> <p>Emerging technologies, adaption, and market for multi-modal advanced mobility</p> <p>Limited ready industrial sites</p> <p>High levels of economic distress/segregation</p> <p>Existing but siloed support systems for innovation, mobility entrepreneurs, startup and early-stage companies, legacy companies, and talent</p> <p>Existing mobility-related facilities, including testing and proving</p> <p>Over 400 regional assets identified</p> <p>Aging workforce/declining workforce participation and increasingly high-tech skill demands with a substantial portion of the working population lacking relevant skills</p>	<p>GEM coalition (100+)</p> <p>GEM component projects</p> <p>EDA funding</p> <p>Cash match</p> <p>In-kind contribution from co-recipients and subrecipients</p> <p>Complementary initiatives including Michigan Central station, GM battery production facilities, Factory Zero</p> <p>Substantial philanthropic investment in DEI and career pathways initiatives</p>	<p>16 ready sites (including City of Detroit construction) for near and mid-term mobility projects</p> <p>800 credentials conferred; 40 postsecondary education programs articulated</p> <p>~450 (duplicated) companies served, 7,000 workers served</p> <p>10,000 individuals engaged</p> <p>10% increase in regional test site utilization</p> <p>5% increase in meaningful mobility services (through scaling of successful demonstrations) provided to HECs</p> <p>Increase in regional mobility cluster connectedness by 50% in 4 years</p> <p>25% increase in mobility-related VC investment with substantial-related job growth</p> <p>Movement of 1,000 HECs into career pathways that connect them to future mobility opportunities and related career advancement in 4 years in engineering, information, and other advanced mobility jobs,</p>	<p>4,190 new quality jobs; 10,800 retained jobs</p> <p>\$585 Million company investment</p> <p>\$97.5M in wages retained, \$21M+ in existing worker wage growth (especially for HEC production workers)</p> <p>15% positive change in advanced mobility sales from legacy companies served</p> <p>5% increase in technology commercialization conversion rate</p> <p>Burgeoning and diverse Detroit region with mobility-led economic opportunity—a magnet for inclusive mobility innovation</p> <p>More easily navigated and well-connected resources and supports for aspiring and seasoned mobility business owners</p> <p>Decreased poverty in urban core areas where new mobility investments are concentrating (e.g., Detroit, Pontiac, Flint, etc.)</p> <p>Increased visibility of and value from the mobility cluster resulting in ongoing investment and greater concentration of assets</p>

Work conducted by the coalition between Phase 1 award (P1) and Phase 2 submittal (P2):

New information: GEM partners continued to gather new information from P1 to P2 through ongoing engagement of 136 coalition partners. To ensure better inclusion of key voices at the strategic level, the GEM team doubled the original Advisory Council (AC) from 9 to 20, ensuring better intelligence around ecosystem resources and needs, labor/union priorities, and incorporating additional geographic and HEC representation. AC membership comprised 11 women and people of color (POC) and involved 3 meetings. Direct input from the mobility industry substantially increased in P2, including surveys, interviews, and the formation of a 39-member Industry Advisory Council (IAC) consisting of 14 women/people of color, and various experts on mobility, enabling technologies, and company growth stages. All of this served to provide a much broader and practical view of both the cluster and communities’ needs. GEM also intentionally strived to understand and address the priorities of HECs, engaging a DEI consultant and forming a DEI committee to review and provide feedback on all component submissions. Within component-project work groups (3 meetings each), participants undertook visioning, ideation, and prioritization exercises, rounding out intelligence around the cluster’s many opportunities and challenges and developing solutions. Involvement from private industry has significantly increased through this phase of planning, with industry involvement activities and **regional investment** announcements described on page 4. The coalition was also able to pull together a group of 10 major foundations to discuss complementary initiatives, match potential, support for cash flow, and **sustainability**.

DRP Staff and Consultants	GEM Lead Institution: SEMGC (a DRP subsidiary) & RECO						
	Regional Advisory Council 3 meetings held-12 participants			Industry Advisory Council 2 meetings held-28 participants			
	GEM Coalition: 5 meetings held-136 participants						
	GEM Co-Recipients: SEMCA, OFME, DRP/SEMG, TechTown, UofM EGI, City of Detroit						
	Work Groups:						
	Talent Transformation 3 meetings 42 participants	Proving & Testing 3 meetings 17 participants	Innovation Hub 3 meetings 26 participants	Startup & growth 4 meetings 36 participants	Legacy & transition 4 meetings 18 participants	Site readiness 3 meetings 20 participants	GEM Central All work groups and Coalition topic

At least one GEM core team member has participated or viewed every EDA-led, BBBRC finalist engagement. Regular meetings (typically weekly or more) have occurred with Lee Shirey (EDR), as well as legal counsel and a construction specialist, to discuss allowability, **feasibility**, and fit with **EDA priorities**.

P1 risks mitigated: (1) The reimbursement-based cash flow issue for component projects identified in the P1 application has been mitigated through support from a committed social impact investment from the Kresge Foundation, which intends to make up-front payments to partners with later reimbursement. (2) As identified in P1, the region’s automotive and private-culture, which is highly proprietary and confidential, will likely continue, but the GEM Industry Advisory Council has served as a platform for frank discussion and problem-solving. By painting a picture of improved workforce system functionality, startup support to feed supply chains, and the potential to assist companies with the pivot from ICE to EV, the Council openly discussed the issues in front of them, provided feedback both within the meeting parameters and through several 1:1 conversations with DRP staff. (3) Some anticipated losses in regional jobs and investments during the shift from ICE to EV are unavoidable. To mitigate skewed metrics, outcomes will be measured specific to advanced mobility and/or be measured from the projected metrics rather than assessed as net gains. See *outcomes section* for more information.

Changes to the vision and proposal reflect lessons learned: The coalition vision established in P1 was reinforced in this P2 application, but with the following changes:

1. The radical inclusion accelerator has been eliminated as a stand-alone project. Instead, all projects have prioritized DEI as a primary lens through which to view activities and

- outcomes. GEM has established a standalone DEI Council as part of its governance to both inform and challenge component projects' DEI priorities, and GEM Central has allocated an FTE and consulting resources to provide a DEI-focused, shared services support model.
2. Work groups met, discussed, strategized, and developed every component project, and co-recipients were selected through an application process.
 3. Startup and growth work reaffirmed the need for a regionally-distributed incubator/accelerator network (the industry survey confirmed the need for better navigability of startup resources), but the group identified additional need for capacity building around mobility-related hardware and software competencies. The group uncovered the need for additional early-stage supports, including an aligned mobility-funders network with deeper industry expertise. They also developed better opportunities to create "stickiness" in the ecosystem (less drain to the coasts) through better founder-to-founder and founder-to-supply chain interactions and improved access to experienced talent.
 4. The workforce referral network project has been folded under "Talent Transformation" and is now one portion of a larger initiative. Industry provided constant and profound feedback around the need to address current and future talent shortages within the mobility cluster.
 5. A focus on "Innovation Districts" broadened from centering on support for a few geographically based innovation hubs in the city of Detroit, to a need to better connect the region's larger innovation ecosystem to the GEM component projects and mobility sector, creating a network of inclusive innovation resources. As part of this revised strategy, GEM will intentionally engage and align with both the Detroit innovation hubs, as well as the region's eight SmartZones - technology clusters that promote resource collaboration to grow technology-based businesses and jobs. By creating more connectivity between our mobility and innovation resources, we expect to see enhanced communication, coordination and alignment that results in new technologies, companies, and jobs. Expanding this project ensures that GEM efforts will serve both urban, suburban, and rural communities.
 6. Innovation hub, research, governance, and RECO are now combined into the GEM Central project (along with the above-mentioned centralized DEI support), serving as the center for mobility inclusion, communications, intelligence, and innovation benefiting all the other projects. This ensures that GEM is one unified, multifaceted effort that maximizes the ability to align, communicate, collaborate, share best practices and maximize outcomes.

New commitments received are reflected in the letters of commitment/support attachment. Overall, GEM has received commitments for 17,389 jobs created and 47 individuals hired as a direct result of GEM activities. **Regional investment** commitments total \$5,429,810,000 dollars. Federal share request is \$93,262,588 and non-federal share committed is \$27,994,891 for a total budget of \$121,257,479 (30% match).

USED A support for the Detroit region will serve as the catalyst to transforming the nation, and even the world. This once-in-a lifetime opportunity will launch the region into a second century of advanced mobility prominence while deeply embedding economic equity into every aspect of industry cluster growth. This cumulative economic effect will have multi-generational impact and will support innovation for a more prosperous, equitable, and sustainable world.