Detroit Regional Partnership

Prepared testimony of

Maureen Donohue Krauss
President and CEO
Detroit Regional Partnership

Before the

U.S. House of Representatives Committee on Science, Space, and Technology

Subcommittee on Research and Technology

Building Regional Innovation Economies Part II

Wednesday, December 14, 2022

Chairwoman Stevens, Ranking Member Feenstra, and distinguished subcommittee members:

Thank you for this opportunity. I am honored to speak to you today, especially before Chairwoman Stevens who has been such a great champion of our region, state, and automotive industry.

I am here as the President and CEO of the Detroit Regional Partnership. We are a public-private economic development partnership tasked with attracting investment and jobs to create a more prosperous 11-county Detroit Region. Our organization essentially travels the world promoting the region and meeting with companies that are looking to innovate and expand their operations in North America. We then help them locate to, and thrive in, our unique business climate and innovative ecosystem.

With that perspective, I would like to share the Detroit Regional Partnership's experience in being awarded a $52.2 million grant from the U.S. Economic Development Administration through the Build Back Better Regional Challenge. I would also like to highlight how approaching economic development and innovation through a regional lens is so important.

Detroit's Perspective on Regional Innovation Economies Is Critical

As you know the world is experiencing a historic shift as we transition from internal combustion engines to electric, connected, and fully autonomous vehicles. The Detroit Region's experience in maintaining our global leadership in automotive is particularly relevant to your discussion on how best to build regional innovation economies.

In the Detroit Region, we have weathered the economic ups and downs and the global competition for manufacturing for decades. We have often been the hardest hit during times of recession due to the cyclical nature of our signature automotive industry. Yet each time, we have overcome those challenges and re-emerged as a global center of innovation that the country turns to when it needs the best that American ingenuity has to offer.

We also share a border with our nation's largest trade partner, Canada, and at center of one the North America's most important supply chains. Given the challenges throughout the pandemic, we are all painfully aware of the importance of supply chain resiliency, most recently with the semiconductor chip shortages and potential impact of the averted railway strike. When it comes to building a more resilient economy that leverages the strength of local communities, we have important perspective.

Detroit Is Ready to Lead Transformational Shift in Mobility

Building off of our well-documented automotive legacy that put the world on wheels in the 20th century, the Detroit Region is at the forefront of advanced mobility technology as the world phases out the internal combustion engine. Companies that want to lead in automotive and mobility continue to locate in the Detroit Region to create next-generation mobility solutions with the support of our premier ecosystem.

As you may be aware, Michigan is the No. 1 state for automotive R & D and production.[1] From 2017 to 2021 there was $5.2 billion in automotive and mobility investments in the Detroit Region alone, which created 17,000 jobs. Michigan also leads the nation in new mobility and automotive investments, accounting for 41% of all U.S. investment in the sector between 2009-2019[2].

But we understand that our leadership in automotive and mobility comes with no guarantees. Detroit, like our country, faces intense global competition and the world is competing daily to win long-term transformational economic investments in advanced mobility and define how the world moves throughout the 21st century.

The global electric vehicle (EV) market is expected to grow from $287 billion in 2021 to $1.3 trillion in 2028[3]. Given the rate of technological development that will come with that investment, the trajectory of the automotive and mobility sectors for the next 100 years will likely be defined in the next 10. This is a critical juncture for the entire industry.

Advanced Mobility Industry Is More Than Cars

The rapid transition to electrification and advanced mobility by the automotive industry is also having a secondary effect of pulling other industries and companies into these sectors. Ensuring that the automotive industry continues to research, develop, test, and deploy new technologies in the Detroit Region will have a major spillover effect on the overall growth of mobility and this country's ability to maintain its global economic leadership.

Our region and state are leading the push for electrification, but also providing the testing grounds for alternative power sources such as hydrogen and other forms of clean-energy technology. We are also leading mobility innovation that stretches well beyond traditional automotive, such as unmanned ground vehicles for the military, e-bikes, personal aviation, and drones – all which will shape advanced mobility, the workforce, and our society for decades to come.

While the cartoon the Jetsons may have looked like an outlandish fantasy during many of our childhoods, the days of flying taxis are nearly upon us. Innovators in our region are mapping lower altitude highways in the sky that will dictate the next era of aerial mobility.[4] As a country, we cannot be left out of that type of innovation. Investing in the Detroit Region's automotive and mobility industry cluster will ensure that we are not.

---

[1] National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2019.

[2] Center for Automotive Research American Communities Partnership Data.

[3] The global electric vehicle market was USD 246.70 billion in 2020. The market is projected to grow from USD 287.36 billion in 2021 to USD 1,318.22 billion in 2028 at a CAGR of 24.3%. "Electric Vehicle Market Size, Share & Covid 19 Impact Analysis, By Vehicle Type (Passenger Car and Commercial Vehicle), By Type (BEV, PHEV or HEV and Regional Forecasts, 2021-2028. Report ID FBI101678." Published September 2021.
Read More at:-
https://www.fortunebusinessinsights.com/industry-reports/electric-vehicle-market-101678

[4] "Detroit Region Aerotropolis: Establishes Low Altitude Drone Transporation Infrastructure." Airspace Link Inc., August 2020. Read more here: https://www.detroitaero.org/wp-content/uploads/2020/08/AerotropolisCaseStudy.pdf

Detroit Is the Best Bet to Extend U.S. Mobility Leadership

In the Detroit Region's application to the Build Back Better Regional Challenge, we made the case to the EDA that there is no better bet than Detroit to help the U.S. lead the world in mobility.

Building on more than 100 years of industry leadership, this grant will further entrench our region as the Global Epicenter of Mobility and usher in the next century of mobility leadership. The Global Epicenter of Mobility, or GEM as we call it, will create an inclusive and sustainable advanced-mobility cluster and ensure our workers, companies, and communities are not left behind.

We will accomplish this by building around the world's densest automotive industry cluster. Our signature industry is anchored by household brands that continue to make transformational investments. GM's first fully dedicated EV assembly plant known as Factory Zero, Stellantis' Detroit Assembly Complex Mack facility, the first new assembly plant in the city in 30 years, and Ford's hub of innovation and mobility, the Michigan Central Station — are just a few recent highlights. While these companies are well known to the members of this committee, the rest of the region's automotive and mobility cluster is also driving innovation.

Michigan is home to 29 Original Equipment Manufacturers and 96 of the top 100 automotive suppliers – most of which are in the Detroit Region[5]. We have over 2,200 facilities with engineering, R &D, testing, and validation centers[6]. We have top research universities and community colleges and our region's talent pool is deep – we are 1st in the nation in mechanical engineering talent and 1st in industrial engineers[7].

Collectively, this is one of the most innovative ecosystems in the world. From 2010 to 2020 there was $41 billion in mobility investment in our region.[8] The Detroit Region continues to design, engineer, test, build, and ship the latest cutting-edge mobility and automotive technology and vehicles.

- Electric vehicle production in the U.S. is centered in the Midwest, and Michigan ranks #1 for number of EV Supply Chain Plants in 2022[9].
- 1/3 of U.S. battery production and development facilities are in Michigan[10].
- Michigan is the #1 state for connected vehicles with U.S. DOT-Funded Operational Deployments and more than 6,000 ITS devices deployed by the Michigan Department of Transportation.[11]

[5] "Michigan is Automobility." MICHauto, 2021.
[6] "Michigan is Automobility." MICHauto, 2021. Read report here: https://michauto.org/michigan-is-automobility/
[7] "Mobility and Automotive." Detroit Regional Partnership, 2022; Lightcast (formerly EMSI)
[8] Center for Automotive Research American Communities Partnership Data.
[9] "Mobility and Automotive." Detroit Regional Partnership, 2022. Read more here: https://www.detroitregionalpartnership.com/mobility-automotive/
[10] "Mobility and Automotive." Detroit Regional Partnership, 2022.
[11] Michigan is Automobility." MICHauto, 2021.

- The state also has the largest deployment of Vehicle-2-Infrastructure (V2I) in the country with 500 miles of V2I technology roadway and 120 miles of technology-enabled smart corridors[12].

In fact, next year Detroit is poised to have the first road to charge EVs as they drive, a critical step needed to foster widespread adoption of EVs[13].

Michigan's Homegrown Companies Are Driving Global Innovation
Let me share two recent examples of the companies that are driving this type of innovation. Our Next Energy is a homegrown startup founded in 2020 that is poised to deliver cutting-edge energy storage technology that will allow electric vehicles to drive 600 miles on a single charge, doubling their range.

It recently announced a $1.6-billion investment to build a gigafactory that will employ more than 2,100 people and deliver cutting-edge battery technology developed in the Detroit Region[14]. Less than three years ago, Our Next Energy did not even exist and now employs nearly 150[15]. There are not many places in the world that can develop and produce this level of transformational innovation that quickly.

Another company, Dunamis Clean Energy Partners, is the first Black woman-owned EV charger manufacturer that we are aware of in the world. Dunamis is building high-tech, high-efficiency chargers for residential, business, and commercial fleets. Based in Detroit, Dunamis is also committed to ensuring that historically excluded communities (HECs) are included in the once-in-a-generation wealth transfer that electrification and advanced mobility will bring.

Up and down the supply chain, the Detroit Region is home to pioneers who continue to push the envelope on cutting-edge battery, EV, and advanced mobility technologies. This grant will help the region marshal all of its resources to support the next Our Next Energy and the next Dunamis Energy.

GEM: Building a Secure, Sustainable, and Inclusive Advanced Mobility Industry
The Global Epicenter of Mobility (GEM) initiative includes six projects that will create a smart, secure, sustainable, and inclusive advanced-mobility industry. Overall, GEM has received commitments from our partners to create more than 17,000 jobs with regional investment commitments totaling more than $5.4 billion.[16]

[12] "Mobility and Automotive." Detroit Regional Partnership, 2022.
[13] "Michigan plans 1st U.S. electric vehicle charging road in Detroit by 2023." Detroit News, Feb. 1, 2022.
[14] Michigan Economic Development Corporation. "Gov. Whitmer Announces 2,000 New Jobs, Investment of $1.6 Billion as Michigan-Based Our Next Energy Builds New Battery Manufacturing Facility in Wayne County." October 5, 2022.
[15] "Mobility Tech Stars." Detroiter Magazine, Sept. 2022.
[16] Global Epicenter of Mobility Detroit Region: Build Back Better Regional Challenge, Phase II Application, March 15, 2022.

The beauty of GEM is that we are not starting from scratch. We are building around more than 400 existing mobility assets that have been assembled over the past 100 plus years. The Detroit Region has the world-class research universities, testing facilities, supply chain, talent, and infrastructure to deliver even more innovation and to do so in a way that maximizes the EDA's investment. Grants like the one we received from the EDA will only increase the amount of innovation this region provides.

GEM also recognizes how a regional innovation economy requires our workforce and training centers, universities, and community colleges working together to deliver the high-tech talent needed by advanced mobility companies today and into the future. That is why we built a strong coalition that includes industry leaders, local governments, institutions of higher education, nonprofits, labor unions, and community-based organizations from every corner of our region.

Creating GEM is a truly collaborative process of organizations working together to build out this new advanced mobility cluster, including co-recipients (below) and many more sub-recipients throughout the region. As part of GEM:

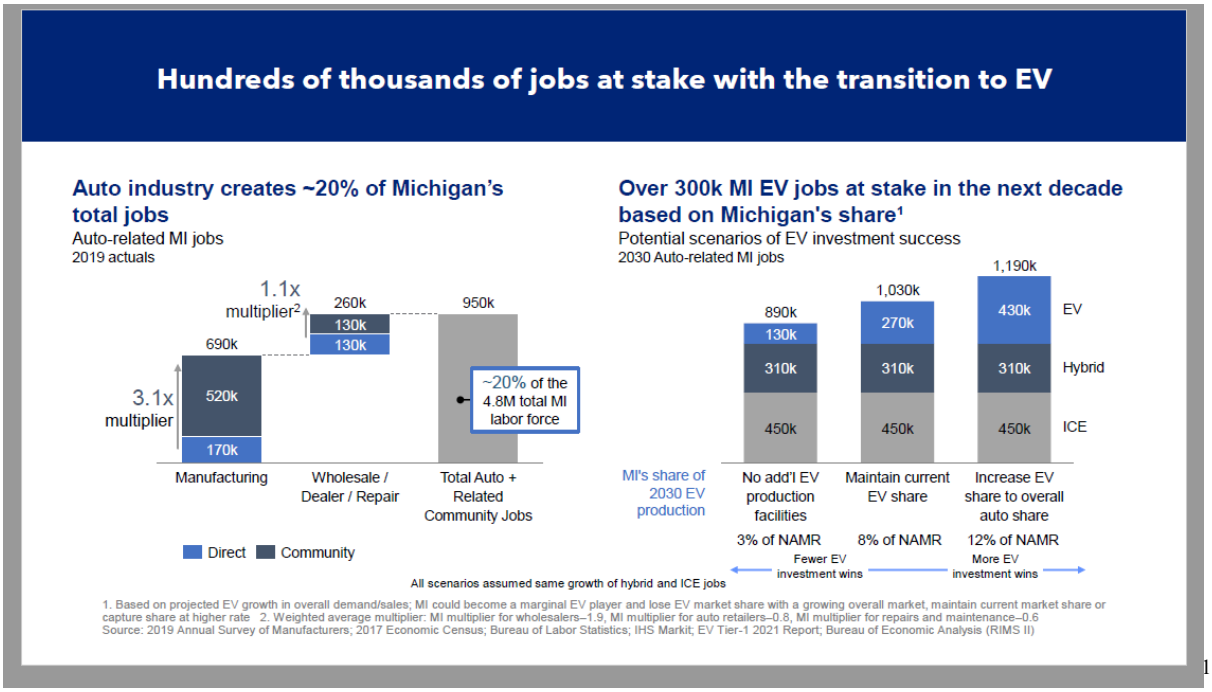
- The **Detroit Regional Partnership** will increase site readiness to attract major mobility projects.
- The **State of Michigan's Office of Future Mobility and Electrification** will increase equitable access to the state's world-class testing and proving assets.
- The **Southeast Michigan Community Alliance** (SEMCA), in coordination with **MichiganWorks!**: will help existing companies meet evolving high-tech talent needs, offset retirement losses, and support career pathway advancement for historically excluded communities.
- Entrepreneurship hub **TechTown Detroit** will accelerate the growth of mobility startups that drive innovation to fill gaps in the mobility value chain.
- The **University of Michigan Economic Growth Institute** will help existing small- to medium-size manufacturers transition to the electric vehicle market through a new Advanced Mobility Supply Chain Transformation Center.

'All Hands On Deck' Needed to Support Workers, Companies and Communities Through Mobility Transition

Companies around the world are in the midst of a major effort to design, develop, and build electric, connected, and automated vehicles and other mobility-related technologies. As a result, a myriad of new skills such as software and systems engineers, testing technicians, electricians and electrical engineers, systems administrators, user experience designers, and others are redefining the automotive job market and are in high demand.

Traditional automotive has 200,000 manufacturing jobs and impacts 20% of Michigan's labor force, which is at risk during this transition. With EV sales in the U.S. expected to increase from 2% to 30% of production in the next decade, the Michigan Economic Development Corporation estimates there are over 300,000 Michigan EV jobs at stake based on Michigan's current share of auto-related jobs (see chart). Many legacy companies will need help through this transition to stay competitive as will many workers who suddenly find their skillsets outdated. This is truly an

"all-hands-on-deck" situation to ensure our domestic automotive and mobility industry remains competitive, our workers remain employed, and our communities that rely on the industry remain prosperous.



[17]

By bringing together our regional partners, GEM will support workers, startups, and existing companies so they can adapt to, and succeed in, the new rapidly evolving advanced mobility industry. It will be essential to ensuring we have the workforce and supply chain that can support the automotive and advanced mobility industries moving forward.

Amid this historic shift, we must ensure that all talent has the ability to acquire the right skills for jobs of the future; and all smaller sized companies can have access to the resources to compete in this new sector of mobility. Through inclusiveness and sustainable practices, we have the opportunity to further transform the industry creating more large scale and future mobility supply chain companies.

Advanced Mobility Offers Opportunities to Drive Innovation, Equitable Growth
Amidst this remarkable mobility transition, we also recognize the opportunity to make our communities and regional economy more resilient through inclusive and equitable economic

[17] "Improving Michigan's EV Competitiveness." Michigan Economic Development Corporation, October 2021.

growth. Too often, historically excluded communities (HECs) are left out of traditional economic development as they face additional barriers — such as lack of access to capital — that prevent their success. HECs also often lack effective mobility solutions or the opportunity to inform the development of essential mobility projects that have such an impact on communities and neighborhoods. GEM can help change that.

Each GEM project defines diversity, equity, and inclusion efforts and directly engages data-identified distressed communities to address equity, gain insight, and elevate community voices regarding resident needs. It can help create more pathways for entrepreneurs from HECs to test their innovations and bring their ideas to market. This is essential to our region's ability to reach its full productivity and potential.

Diversity provides a series of tangible and strategic benefits that allow a business, an industry, and a region, to adapt to changing circumstances more adequately. It is essential to expanding into new markets, cultivating new avenues of doing business and responding to adversity. Increasing diversity and inclusion in economic development strategies will increase innovation and resiliency by bringing more talent and small businesses into the fold.

I commend the EDA for including equity and diversity in these grants and forcing regions across the country to work together to apply for them. Economies are regional. Talent, workforce, and supply chains are regional. Businesses, commerce, and people do not stop at city or county lines and neither does innovation. As importantly, talent and ingenuity are not limited to any specific race, gender, or culture – but too often, opportunity is. Those realities should dictate the way we approach economic development.

A few years ago, the EDA might have received five different applications from our region – and very likely those applications would have missed out. Or the EDA would have awarded a grant to an entity that might have had to allocate portions of the money to services or resources already present somewhere else within our region, reducing its overall impact.

Instead, via the Build Back Better Regional Challenge, the EDA received one comprehensive application that harnesses the resources of 11 counties that make up one of the most innovative regional economies in the world. It will provide much better value to the taxpayers who ultimately fund these grants.

Keys to Building Regional Innovation Economies

Before I close, I have a few recommendations about how to build regional innovation economies.

- Require and incentivize regions to collaborate in order to qualify for transformational economic development grants. It will deliver the best return on your investment by forcing regions to maximize their collective assets. Starting from scratch is so much more expensive than building on what you have.
- Make inclusion and equity a continued focus in economic development. Regions across this country have so much untapped or underutilized talent. Inclusive economic development increases productivity and innovation.
- Create a more inclusive grant-making process by providing forward funding. The current

reimbursement model tends to sustain or exacerbate inequities between grant applicants and puts this process out of reach for many potential applicants, particularly historically excluded communities.

- Seek out the regions in this nation that do something better than anywhere else. Innovative regions, like Detroit, are worth investing in, and doing so will allow for a more resilient, competitive, and prosperous country.

Thank you for the opportunity to testify today. Chairwoman Stevens, thank you for all you do for the Detroit Region, for Michigan, and for the automotive and mobility industry.

I also thank this entire committee for your leadership and efforts to drive innovation and regional economic development. I look forward to your questions.