AUTOMOTIVE INDUSTRY

CED.KY.GOV

IN KENTUCKY



TEAM-KENTUCKY

CABINET FOR ECONOMIC DEVELOPMENT



The Kentucky Effect

Kentucky—land of the thoroughbred—is widely known as the horse capital of the world. But Kentucky is also home to another type of horsepower. The commonwealth is a driving force in today's auto industry. Companies have built vehicles in the Bluegrass State for generations, and they continue to succeed and grow to this day.

How large is the automotive industry in Kentucky? Its size and impact is dramatic. The commonwealth is among the national leaders in motor-vehicle production, and the sector employs over 100,000 people statewide.

From assembling the most innovative cars and trucks on the planet to designing next generation engines and parts, it's clear Kentucky horses aren't alone in being ahead of the competition.

1 OUT OF EVERY 18

workers in the U.S. automotive industry are located in Kentucky Since 2020, KY's auto industry has announced more than

\$12.5 B IN INVESTMENTS

More than **550** automotive-related facilities in Kentucky

#1 PER CAPITA

in the U.S. in automotive production

1 OUT OF EVERY \$11

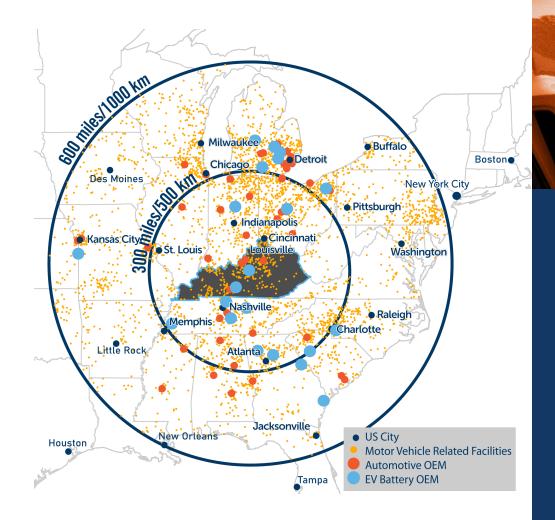
in Kentucky's economy s tied to the automotive industry Since 2020, Kentucky's auto industry has announced approximately

13.900 NEW JOBS

The Center of Auto Alley

One of Kentucky's most undeniable assets is its location. Whether it's to another state or another continent, Kentucky has the capability to move products efficiently.

Located within a day's drive of more than two-thirds of the U.S. population, Kentucky provides businesses with superb access to markets and suppliers. Kentucky-made products can travel along 20 interstates and parkways, running through the heart of "Auto Alley."



"The Corvette's iconic status owes so much to the men and women of Bowling Green, where it has been built exclusively for more than 40 years."

Mary Barra Chairman and CEO, General Motors

Kentucky Leading the Charge

Kentucky has a longstanding history as a leader in the U.S. automotive market. But leaders in the commonwealth have an even greater vision for the sector's future in the Bluegrass State.

As automotive companies transition to an electric future, Kentucky has been ahead of the curve in preparing its existing businesses and workforce for this burgeoning market. In fact, Kentucky has already staked its claim as the electric-vehicle battery production capital in the United States.

Two EV battery gigafactories totaling 116 GWh of capacity have been announced in the commonwealth. Ford Motor Co. and SK On's BlueOval SK Battery Park in Glendale and Envision AESC's operation in Bowling Green position Kentucky as the ideal destination for other EV-related business.

Since June 2020, new and existing companies in Kentucky have announced nearly \$11.6 billion in EV-related investments which are creating well over 10,000 full-time jobs for residents across the state





Kentucky Leading the Charge

In September 2021, Ford Motor Co. and SK On, the battery division of Korea-based SK Innovation, announced plans to invest \$5.8 billion and create 5,000 full-time jobs with a new battery plant in Central Kentucky. The BlueOval SK Battery Park will be located in the Glendale community of Hardin County and will supply Ford's North American assembly plants with batteries to power the next generation of Ford and Lincoln electric vehicles. The 86 GWh operation, expected to open in 2025, will be located on a more than 1,500-acre site along Interstate Highway 65 and ensures Kentucky will continue to be a major player in the U.S. automotive market for decades to come.





"Ford is very excited to make this historic investment in the great state of Kentucky.

Kentucky has been an incredible partner to Ford for more than 100

years and is home to Louisville Assembly Plant and Kentucky Truck Plant. With this announcement, Kentucky will play an essential role as Ford fulfills its commitment to lead the electric vehicle revolution and create thousands of jobs in the commonwealth, and we look forward to working with Kentuckians to create the future together."

Lisa Drake,
Chief Operating Officer at
Ford North America

"The new plant will produce batteries for a growing number of electric vehicle manufacturers and create 2,000 new high-value jobs in the region when at full capacity. The Bowling Green area has an outstanding automotive workforce today, as well as the future pipeline of talent needed, and we are excited to support this with new jobs in the high growth electrification segment. The addition of this new facility will make Kentucky the new gigafactory capital of the U.S., well positioned to meet the forecasted growth of EVs and attract future investment."

Jeff Deaton
U.S. Managing Director of AESC

Leading the Charge

In April 2022, Japan-based AESC announced plans to invest \$2 billion and create 2,000 full-time jobs with an investment in a Gigafactory in the South Central Kentucky community of Bowling Green. The state-of-the-art operation, which company leaders broke ground on in August 2022, will include capacity of 30 GWh, with potential to expand to 40 GWh in the future. Once fully operational in 2027, the facility will produce new generation battery cells with 30% more energy density than the current generation, reducing charge time and increasing range and efficiency for EVs. The plant will power up to 300,000 vehicles annually.





Leading the Charge

A number of new and existing Kentucky suppliers have announced major investments and job creation within the EV sector, as the commonwealth establishes a diverse supply chain to meet the needs of the rapidly growing industry. From battery recycling to motors and everything in between, Kentucky businesses are prepared to serve the automotive industry of the future.



Kentucky Horsepower

Kentucky is home to four automotive production facilities representing three OEMs. Ford operates two plants in Louisville, Toyota's largest production facility is located in Georgetown and General Motors constructs the world-famous Corvette in Bowling Green. In total, no state in the U.S. produces more vehicles per capita than Kentucky.



Ford F-Series Super Duty Made in Kentucky since 2006



Ford Expedition Made in Kentucky since 2009



Ford Escape Made in Kentucky since 2011



Lincoln Navigator Made in Kentucky since 2009



Lincoln Corsair Made in Kentucky since 2019



Made in Kentucky since 1988



Toyota Camry Hybrid Made in Kentucky since 2006



Chevrolet Corvette Made in Kentucky since 1981



Toyota RAV4 Hybrid Made in Kentucky since 2020



Lexus ES 300h Made in Kentucky since 2019

5.7 MILLION+ VEHICLES

were produced in Kentucky over the past five years (2018-2022)

"In a way, for manufacturing, **Kentucky** is Toyota's home. It also has some of the most experienced Toyota team members in

> Akio Toyoda Chairman Toyota

the world."



A Global Automotive Force

Kentucky has been making cars for more than a century, since Ford first rolled its Model T down a Louisville assembly line back in 1913. Henry Ford discovered what countless others would soon learn-Kentucky is a great place to build the world's best vehicles.

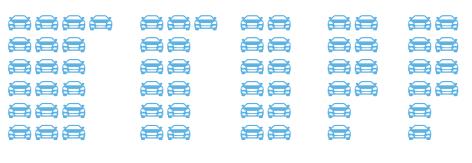
Today, Kentucky is at the center of advanced automotive manufacturing. Its four major assembly plants—Ford (two plants), General Motors and Toyota—have invested billions of dollars into their Kentucky operations and are designing, engineering and assembling the next generation of vehicles.

In fact, the commonwealth produced more than 1 million cars and trucks in 2022, making Kentucky the largest automotive-producing state per capita.

- Approximately 37% of all investment and 24% of jobs announced in the past 5 years are a result of automotive-related projects.
- ✓ More than 100,000 directly employed in auto-related manufacturing and service & technology facilities.
- More than 215 international motor vehicle-related facilities employ nearly 60,000 people.

Kentucky's Automotive Strength

Ranked 3rd in U.S. in 2022 for car and truck production



MICHIGAN 2.167.116

INDIANA 1.109.186

1.085.308

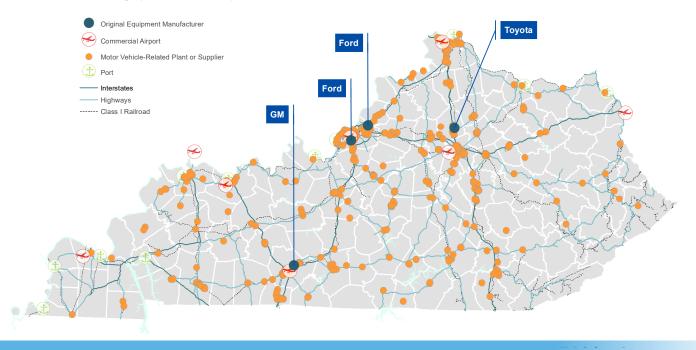
KENTUCKY OHIO

ALABAMA 911.568 830.709

Motor Vehicle-Related Facilities in Kentucky

Motor Vehicle-Related Facilities in Kentucky

Total number of motor vehicle related facilities: 567 Total full-time employment as of January 2023: 103,153



MANUFACTURING FACTS

Original Equipment Manufacturer investments (2016-2022

FORD MOTOR COMPANY | \$7.2 Billion

TOYOTA | \$2.1 Billion

GENERAL MOTORS | \$290 Million

Supply Chain Central

Not only does Kentucky know how to manufacture vehicles; it can supply virtually every component needed to build them. As the nation's OEMs continue to grow, more parts suppliers are locating and expanding in the state. Kentucky's supply chain is one of the reasons the state's auto industry is so successful. More than 550 automotive related facilities call Kentucky home. They make everything from bumpers to engine components to windshields to frames. These parts are shipped throughout the country and around the world.

Top 10 Automotive Employers

Based on full-time, statewide employment

1.	Ford Motor Company	13,120
2.	Toyota Motor Manufacturing Corp.	9,425
3.	Metalsa Structural Products Inc.	2,762
4.	Magna International Inc.	2,455
5.	Hitachi Ltd.	1,800
6.	Toyoda Iron Works Co Ltd.	1,782
7.	Akebono Brake Industry Co Ltd	1,606
8.	Toyota Tsusho Corporation	1,558
9.	Dana Incorporated	1,263
10.	General Motors Corp	1,212

Source: Kentucky Cabinet for Economic Development, 2022

Top 10 Motor Vehicle Component Exports

Parts and Accessories of Motor Vehicle Bodies

- . Parts & Accessories*
- 2. Brakes
- 3. Steering Wheels, Columns, & Boxes
- 4. Road Wheels
- 5. Suspension Shock Absorbers
- 6. Drive Axles
- 7. Gear Boxes
- 8. Safety Airbags
- 9. Clutches
- 10. Radiators
- * Not elsewhere specified or classified (2022) Source: WISER Trade, U.S. Census Bureau



59 plastics facilities supply parts or services to the motor vehicle industry



Kentucky has 12 motor vehicle brake system manufacturers



18 manufacturers of electrical + electronic equipment for motor vehicles



Kentucky is home to 33 motor vehicle-related stamping facilities



21 Kentucky companies make seating and interior trim

State of Resources KENTUCKY'S ABUNDANCE OF RAW MATERIALS

As manufacturers implement such innovations as lightweighting, digital manufacturing techniques and fuel efficiency breakthroughs, Kentucky offers the resources to implement these technologies and to create the innovative practices of the future. Here are just a few of the examples that make Kentucky the place to put innovation into practice.







Aluminum

- More than 180 aluminumrelated facilities with more than 21,000 full-time employees.
- Kentucky exported \$342 million worth of aluminum in 2022.

Steel

- Steel in Kentucky is becoming lighter and stronger, expanding to include a lighter and high-strength variety.
- ✓ Kentucky has 45 steel and iron production companies, employing more than 6,400 full-time workers.
- Kentucky exported nearly \$504 million worth of iron and steel in 2022.

Rubber & Plastics

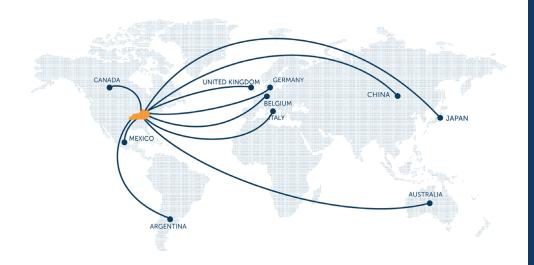
- Kentucky is home to 260 rubber and plastics manufacturers with nearly 31,000 full-time employees.
- Kentucky exported more than \$564 million in rubber and plastics in 2022.

Exports

In addition to Kentucky's central U.S. location, part of our logistics success lies in our ability to ship products anywhere in the world virtually overnight. Kentucky hosts global shipping hubs for three logistics giants — DHL, UPS and Amazon Air – plus several FedEx ground facilities. In addition, our extensive shipping network of interstates, rail and waterways guarantee fast shipping anywhere in the U.S.

Top 10 export destinations

Kentucky-made motor vehicle and parts products



In 2022, Kentucky exported:

\$2.9 BILLION | motor vehicles

\$1.2 BILLION | motor vehicle parts

\$367 MILLION | motor vehicle bodies and trailers

EXPORT FACTS

Vehicle and parts exports in 2022 were

OVER
\$4.5 BILLION

By dollar value, motor vehicles are the state's 3RD LARGEST EXPORT

Motor vehicle-related products in 2022 were shipped to at least

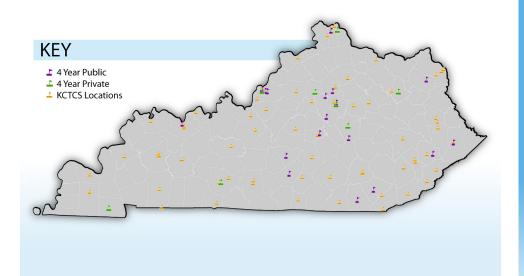
105 COUNTRIES

Revving up the Workforce

A highly skilled and available workforce is the engine that drives Kentucky's economy. Our statewide system of colleges and universities educates and trains our young people to enter the workforce more prepared than ever.

An abundance of engineering degree programs are available at Kentucky's colleges and universities, including specialized chemical, electrical, industrial, mechanical and materials engineering bachelor's and master's programs, as well as an engineering physics bachelor's program. Nine colleges and universities in Kentucky offer undergraduate engineering degrees and three also provide graduate programs, including an individualized engineering program. The University of Kentucky and University of Louisville also offer doctorate programs.

8	18	16	56
PUBLIC	PRIVATE COLLEGES	COMMUNITY &	COMMUNITY &
UNIVERSITIES	& UNIVERSITIES	TECHNICAL COLLEGES	TECHNICAL COLLEGE
126,826	44,489	77,680	BRANCHES
Total enrollment	Total enrollment	Total enrollment	



SKILLED WORKERS IN KENTUCKY

Title	Jobs
Assemblers and Fabricators	44,986
General and Operations Managers	40,746
Supervisors of Production Workers	12,345
Inspectors, Testers, etc.	10,052
Electricians	9,663
Welders, Cutters, Solderers, and Brazers	8,660
Machinists	5,152
Production Workers/All other	4,379
Mechanical Engineers	3,671
Industrial Production Managers	4,195
Tool and Die Makers	1,879

Source: JobsEQ, Employment Data as of Fourth Quarter of 3Q 2022

Engineering Education at Kentucky's Public Universities

- University of Kentucky College of Engineering
- University of Louisville J.B. Speed School of Engineering
- Western Kentucky University School of Engineering and Applied Sciences
- Murray State University School of Engineering
- Eastern Kentucky University Department of Applied Engineering and Technology
- Kentucky State University School of Science, Technology, Engineering and Mathematics
- Northern Kentucky University Mechanical, Mechatronics, Electronics and Manufacturing Engineering Technology
- Morehead State University School of Engineering and Computer Science

3,600 Engineering and Engineering-related Technologies degrees awarded during the 2021-2022 academic year (Source: JobsEQ)

In addition, the Kentucky Community & Technical College System (KCTCS) offers a variety of manufacturing-specific academic programs that combine classroom instruction with practical experience. These include:

- Advanced Manufacturing Technician
- Computerized Manufacturing Machining
- Computer Engineering Technology
- Engineering and Electronics Technology
- Integrated Engineering Technology
- Welding Technology
- Industrial Maintenance Technology
- Manufacturing Industrial Technology
- Additive Manufacturing
- Manufacturing Electrical Technology



Work Ready COMMUNITIES

44Work Ready
Communities

51Work Ready in Progress

25Communities with letter of intent or in formative stage



Bluegrass State Skills Corporation

The Bluegrass State Skills Corporation (BSSC) was established in 1984 to stimulate economic development through customized business and industry-specific skills upgrade and occupational upgrade training. The BSSC approves incentives for qualified companies through a Grant-in-Aid (GIA) program and a Skills Training Investment Credit (STIC). The GIA provides reimbursement dollars to applicants and the STIC provides a tax credit against Kentucky income taxes to companies for approved training activities.

Certifying the Workforce

Kentucky's communities are stepping up to the plate when it comes to demonstrating the quality of their workforce. The state's Work Ready Communities program – the most rigorous workforce certification program in the nation – is inspiring meaningful dialogue and action by community, education, government and business leaders across the commonwealth.

A Kentucky Work Ready Community certification is a measure of a county's workforce quality. It is an assurance to business and industry that the community is committed to providing the highly skilled workforce required in today's competitive global economy. There are two levels of certification – counties can apply to be a Kentucky Work Ready Community or a Kentucky Work Ready Community in Progress.

The certification measures high school graduation rates, National Career Readiness Certification completion, community commitment to workforce development, educational attainment, soft skills development, and internet accessibility. This initiative encourages counties to take a credible inventory of the current and future workforce, identify gaps and carry out strategies to achieve a more knowledgeable, trained workforce.

Three-fourths of Kentucky's counties are already certified as either Work Ready or Work Ready in Progress, and the remainder of the state's counties are in some stage of the journey. Kentucky is proving workforce preparedness is not just lip service.

Source: Kentucky Education & Workforce Development Cabinet

Workforce Training: A Program for Industry, by Industry

Imagine being able to train your future workforce while they're still in school. That's the KY FAME model.

The Kentucky Federation for Advanced Manufacturing Education (KY FAME) is an industry-led partnership that includes manufacturers, educational and workforce institutions and the Cabinet for Economic Development to create a pipeline of skilled workers.

KY FAME offers a dual-track, apprenticeship-style training program. Students attend classes two days per week at their local community and technical college and work three days a week for a sponsoring employer. Students completing the program receive an associate degree in applied science and real-world work experience. Armed with this unique skillset, they have the option of choosing to pursue a four-year degree, enter the workforce or continue down both paths.







Kentucky's Global Reach

Kentucky also provides an alternative for international shippers that have limited access to overly crowded ports on the east and west coasts. Bordered by three important commercially navigable rivers (the Ohio, Mississippi, and Big Sandy), and providing access to seven active/developing public riverport facilities, Kentucky offers an expedient two-way route between the inland markets of America's heartland and major ports on the Gulf of Mexico.

The bottom line is this. A product made in Kentucky can get anywhere in the world in a matter of hours.

②

Kentucky is located within a

DAY'S DRIVE OF 2/3 OF THE U.S. POPULATION Many of the nation's LARGEST CITIES are located within a TWO-HOUR FLIGHT

of Kentucky

Kentucky is located at the

CENTER OF A 34-STATE DISTRIBUTION AREA

in the Eastern U.S.



LOGISTICS FACTS

HIGHWAYS & BYWAYS

28 highways and state parkways

GLOBAL SHIPPING HUBS

UPS, DHL and Amazon Air

AIRPORTS

6 commercial, including 2 international and 50+ general aviation

WATERWAYS

Over 1,000 miles of commercially navigable waterways 10 active/developing riverports

RAILROADS

Over 2,400 miles of freight rai

PUBLIC ROADS

80,000 miles of public road



Logistics Leads the Way

Did you know Kentucky ranks No. 2 nationally for air cargo weight? Kentucky hosts global shipping hubs for three logistics giants – DHL, UPS and Amazon Air – plus several FedEx ground facilities. In addition, our extensive shipping network of interstates, rail and waterways guarantees fast shipping anywhere in the U.S.

Amazon



100 daily flights



1.5Mpackages
delivered daily

DHL



flights arrive &



90% of DHL shipments entering the U.S. are handled in Northern Kentucky

UPS



flights arrive & land daily



2M packages processed daily



Manufacturing Strengths

Kentucky's expertise, workforce and personalized service are major factors in our ability to maintain and grow a prominent position in the manufacturing industry. In addition, our low business costs can help a company's profits skyrocket.

Global companies have discovered the value of locating in Kentucky. Currently, more than 500 Kentucky manufacturing, service and technology-related businesses are internationally owned, representing 33 countries.

Kentucky ranks among the leading manufacturing states with 12.5% of its workforce in manufacturing, versus 8.1% nationally. A recent nationwide state-by-state comparison by Ball State University gives Kentucky an "A" ranking for both manufacturing and logistics industry health.



RANKED 5TH

as a share of total



\$8.28 BILLION



250.000

employed at **5,000**







Lowering the Cost of Doing Business

The commonwealth has consistently offered one of the lowest overall costs of doing business in the Eastern United States.

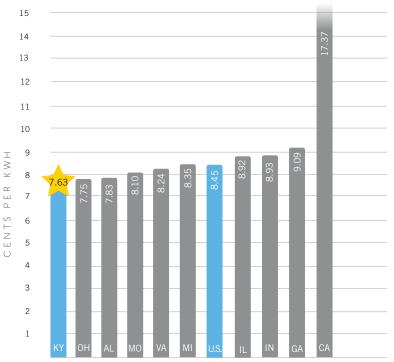
- Ranked sixth in the U.S. in cost of doing business (CNBC's Top States for Business, 2022)
- Kentucky's central location advantage facilitates the distribution of goods and materials to a massive industrial and consumer market
- Labor costs are 20% below the U.S. average (JobsEQ, Data as of 2022 Q3)

A Powerful Comparison

Kentucky's power costs also play a significant role in corporate growth. Our industrial electricity rates are among the lowest in the country. (See attachment on industrial electricity rates by state as of 2022)

INDUSTRIAL ELECTRICITY AVERAGE PRICE

Energy Information Admin., average price by state, released 2022



BUSINESS CLIMATE FACTS

"A" GRADE

Kentucky gets an "A" grade in manufacturing and logistics health Center for Business and Economic Research

TOP 20

State Business Tax Climate Ranking (Source: Tax Foundation, 2022)

9.8% **LOWER**

Kentucky's cost of living is 9.8% lower than the

U.S. average





Finding the perfect location in Kentucky to start, relocate or grow a business is easy. From existing buildings to greenfield sites to megasites, we can accommodate companies of all shapes and sizes—and on any timetable. Need a pad, spec building or an existing facility? Kentucky has plenty of options all across the state from which to choose. Here are a few of Kentucky's special features:

Select Kentucky

Kentucky has a simple tool that allows site selectors to search for a building, a site or more detailed information about potential locations. Select Kentucky, powered by Zoom Prospector, provides community profiles, workforce patterns, demographic information and other data for any area in Kentucky. Check out all of Kentucky's available properties at SelectKentucky.com.

Kentucky Product Development Initiative (KPDI)

KPDI is a statewide effort to support upgrades at industrial sites throughout the commonwealth and position Kentucky for continued economic growth. This collaboration between the Kentucky Cabinet for Economic Development and Kentucky Association for Economic Development (KAED) includes \$100 million in state funding toward upgrades of sites and buildings across the state.

KPDI applicants, such as local governments and economic development organizations, may seek funding assistance for transformative site and infrastructure improvement projects that will generate increased economic development opportunities throughout the state.

Build-Ready

When a site is certified Build-Ready, it guarantees construction can bypass the red tape and break ground almost immediately. Communities that participate in the program already have a pad prepared and have taken care of such details as zoning, road surveys, geotechnical studies, permitting and cost and time estimates. Build-Ready drastically reduces the time it takes for a company to be operational and also allows communities to incorporate the specific needs of the company. For the latest list of Build-Ready sites, visit ced.ky.gov/buildready.

Kentucky Opportunity Zones - KY OZ

Kentucky is one of the first states to adopt the federal government's Opportunity Zone program. In Kentucky, 144 sites have been certified, meaning companies interested in locating or expanding in those specific areas have access to federal tax breaks. *Learn more at KYOZ.org.*

Kentucky Will Help You Succeed Support for Growing Businesses

Here in the commonwealth, we offer all of the resources a business needs to get started and to thrive for years to come. Any company looking to locate or expand in Kentucky is sure to find the facilities, suppliers and partnerships needed to ensure long-term success. As the auto industry continues to evolve, so too will Kentucky. That evolution will ensure Kentucky remains a national leader in the auto industry well into the future.

SPEEDY APPROVAL

SITE & LOCATION ASSISTANCE

FINANCIAL INCENTIVES

WORKFORCE ASSISTANCE

ADVOCATE ON YOUR BEHALF

As your partner, here are some of the services we will provide:

- · Speedy approval processes
- Site evaluation assistance
- Detailed location data
- Assistance with site visits
- Financial incentives and training inducements
- Talent recruitment and training
- Assistance obtaining required permits and licenses
- Serving as your advocate with all involved agencies
- Growing our ecosystem around your business with connecting suppliers

We are happy to support you through the entire decisionmaking process, and we continue that service even after you choose Kentucky.

Consider Kentucky as your partner in your growth plans.
We stand ready to assist in any way to make your next venture a profitable one.

Please feel free to reach out to us at any time:

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Email inquiries to econdev@ky.gov

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