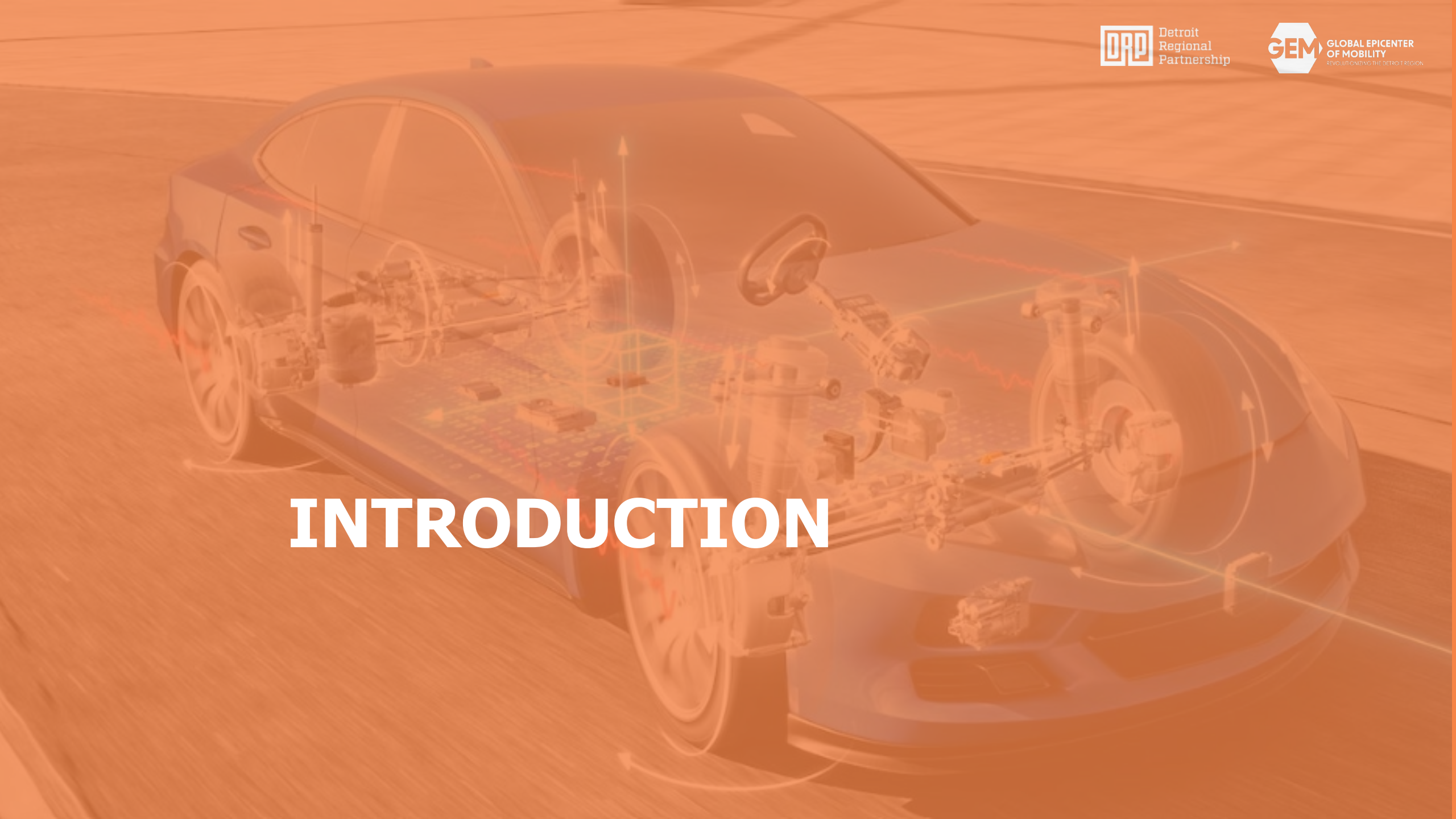
Detroit Regional Partnership

GLOBAL EPICENTER OF MOBILITY

REVOLUTIONIZING THE DETROIT REGION

THE ROAD TO 2030
Advanced Driver Assistance Systems (ADAS) MODULE



INTRODUCTION

Advanced Driver Assistance Systems (ADAS)

Active ADAS

Active ADAS systems intervene and assist in critical driving situations.

- Autonomous Emergency Braking (AEB)
- Autonomous Emergency Steering (AES)
- Adaptive Cruise Control (ACC)
- Lane Keeping Assist (LKA) and Lane Centering
- Front/Rear Cross Traffic Assist (CTA)
- Intelligent Parking Assist System (IPAS) / Advanced Parking Guidance System (APGS)
- Traffic Jam Assist (TJA)

Passive ADAS

Passive ADAS systems provide information and alerts to the driver without taking control of the vehicle.

- Anti-lock Braking Systems (ABS)
- Traction Control System (TCS)
- Electronic Stability Control (ESC)
- Back-up Camera
- Lane Departure Warning (LDW)
- Forward Collision Warning (FCW)
- Blind Spot Detection (BSD)
- Parking Assistance

Key ADAS Components

Multi-purpose camera

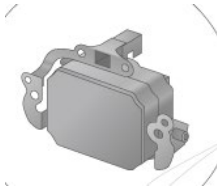
Front radar sensor

Near-range camera

Ultrasonic sensor

Corner radar sensor

RADAR



Thermal camera

LiDAR

SONAR

ADAS ECUs (Electronic Control Unit)

Central Compute Unit (CCU)

Human-Machine Interface (HMI)

ADAS Module Key Findings

ADAS MODULE KEY FINDINGS

$31 Billion
Forecast for 2030

In the total size of the U.S. ADAS Market

Source:

20%
In the U.S. in 2024

ADAS market penetration in Adaptive Cruise Control (ACC)

Source:

+28.6%
In the U.S. from 2025-2032

Compound Annual Growth Rate (CAGR) in Aerospace ADAS technology adoption

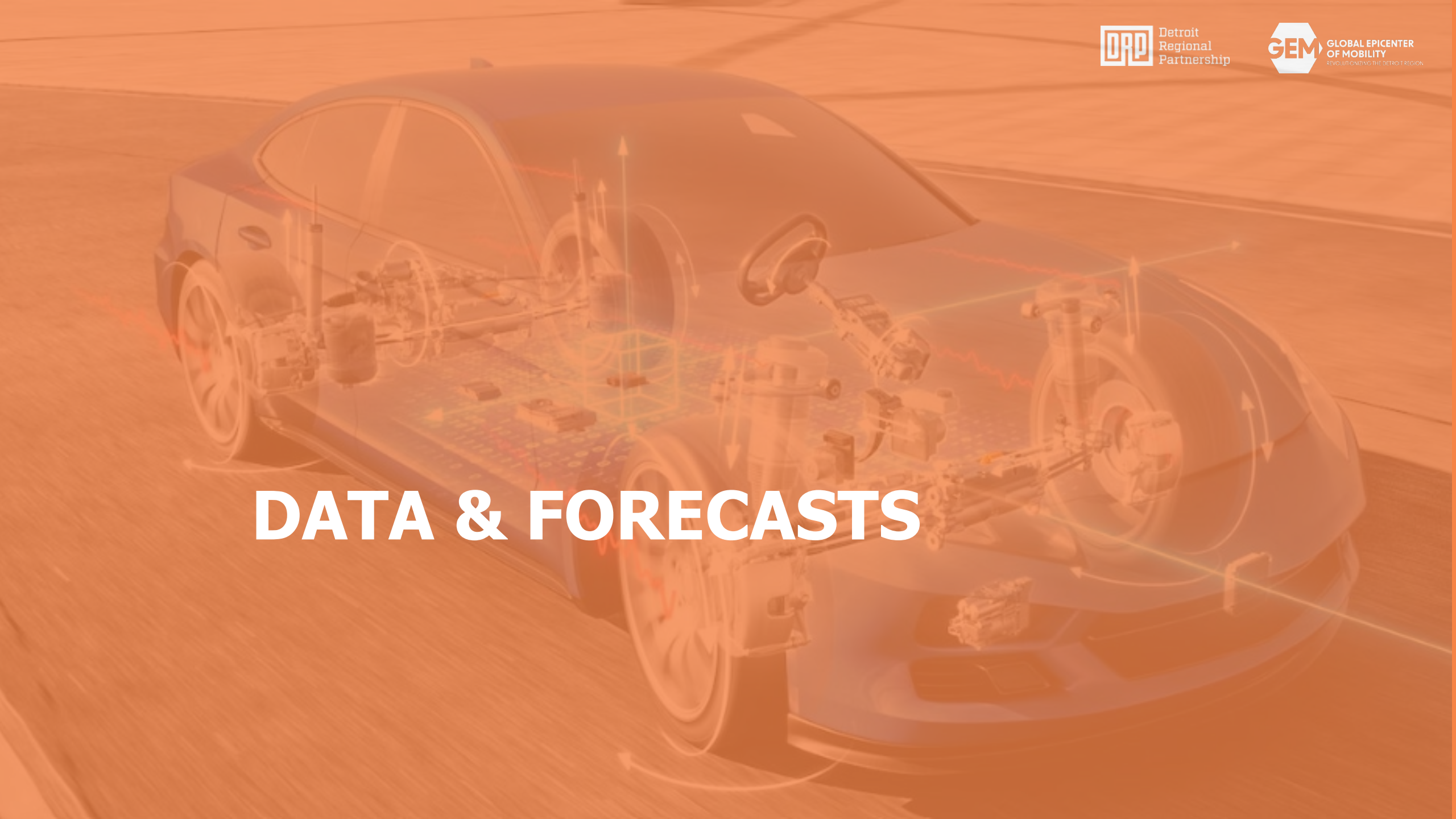
Source:

+
from 2021-2025

This space held for employment growth

Source:

For background information and a glossary of terms, please visit https://gemdetroitregion.com/wp-content/uploads/2025/05/3-FMTS-Background-Methodology.pdf



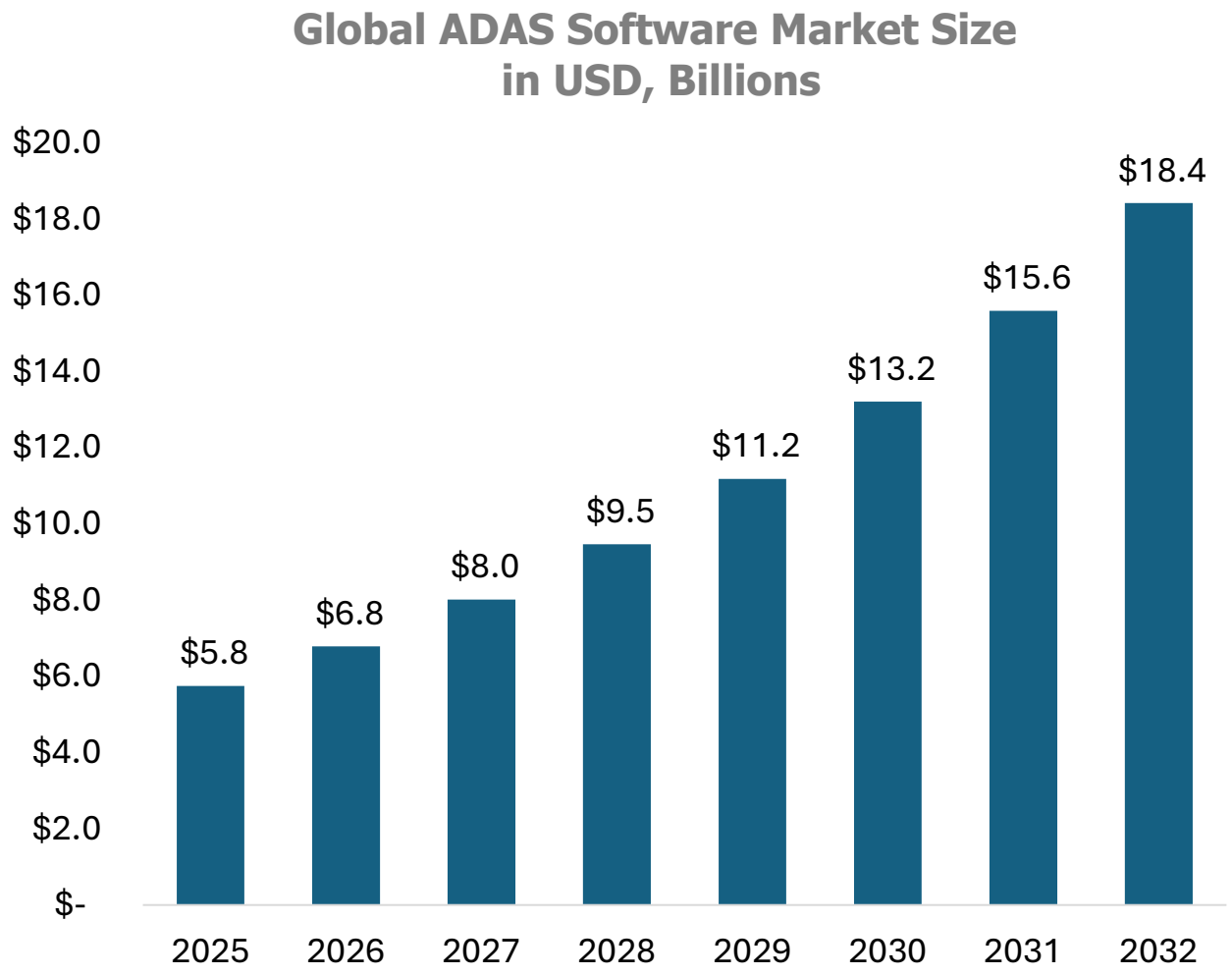
DATA & FORECASTS

ADAS Growth Forecast – Global

The global ADAS software market is projected to more than triple between 2025 and 2032. Growth is driven by sensor fusion, perception, mapping, AI decision-making, cloud simulation, cybersecurity, and OTA updates.

Automotive AI is expanding rapidly (15.3% CAGR* to $38.5B by 2030), with many OEMs partnering externally. Safety mandates and technology breakthroughs are accelerating adoption, and 89% of automotive organizations rank ADAS software as a top priority.

*Compound Annual Growth Rate (CAGR)



Source *Wipfli Analysis, Markets and Markets*

ADAS Growth Forecast – Global

Lane departure warning systems are the ADAS technology with the highest forecast growth between 2025 and 2030, with a Compound Annual Growth Rate (CAGR) of 16.6%.

Automated parking assist systems, with a CAGR of 15%, and Blind spot detection systems, with a CAGR of 14%, are forecast to grow nearly as rapidly.

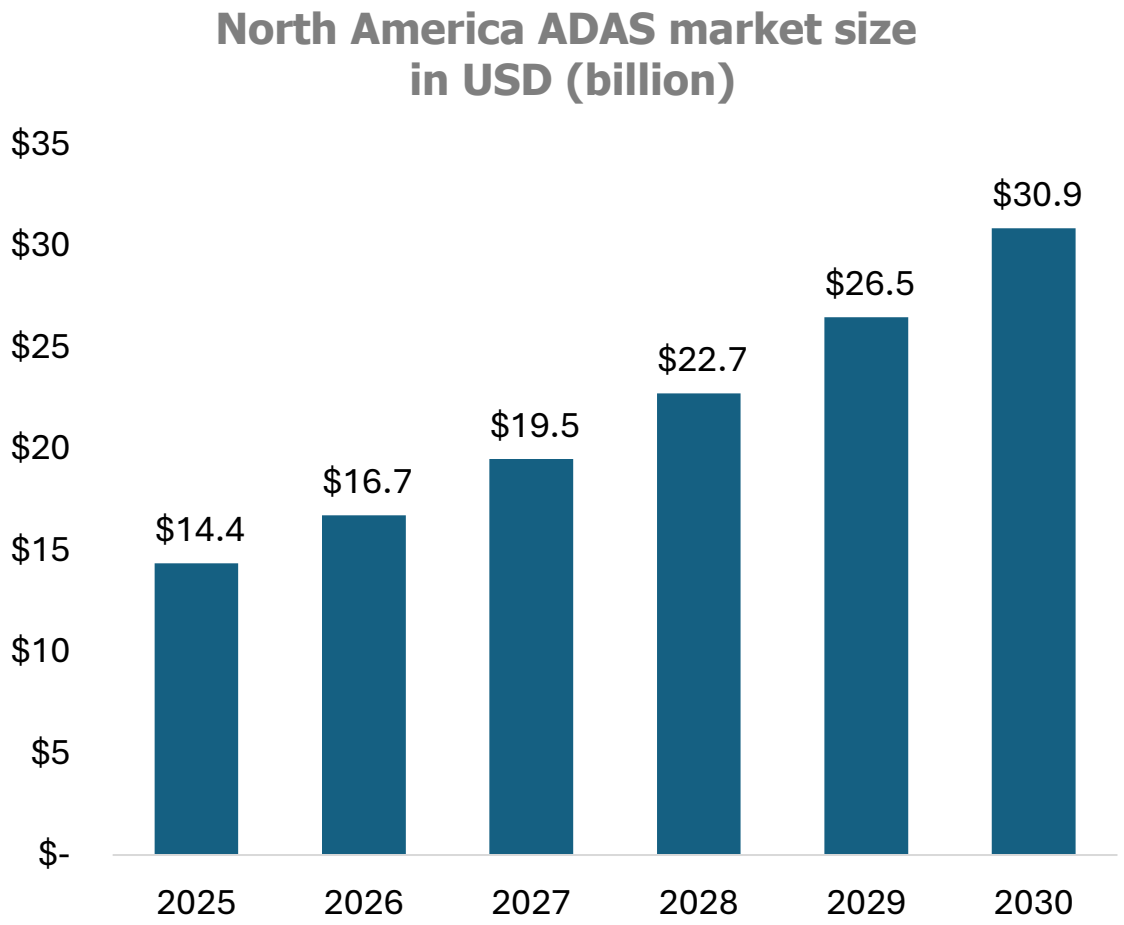
Application	2025 Market Size ($ Bn)	2030 Forecast Market Size ($ Bn)	Global CAGR (2025-2030)
Adaptive Cruise Control	$33.5	$73.9	7.5%
Tire Pressure Monitoring System	$7.1	$10.5	8.1%
Blind Spot Detection	$3.2	$6.2	14%
Automated Park Assist System	$2.9	$5.9	15%
Lane Departure Warning System	$6.9	$14.9	16.6%
Automated Emergency Braking	$74	$106	7.3%
Automotive Intelligent Lighting	$8.2	$12.2	8.9%

Source *Wipfli Analysis, Markets and Markets*

ADAS Growth Forecast – North America

The North American ADAS market is growing rapidly, driven largely by strict safety regulations. A major near-term catalyst is NHTSA's rule requiring automatic emergency braking on all light vehicles by 2029.

The U leads the North American region due to the presence of global OEMs and advanced technology adoption, accounting for 69% of the North American market.



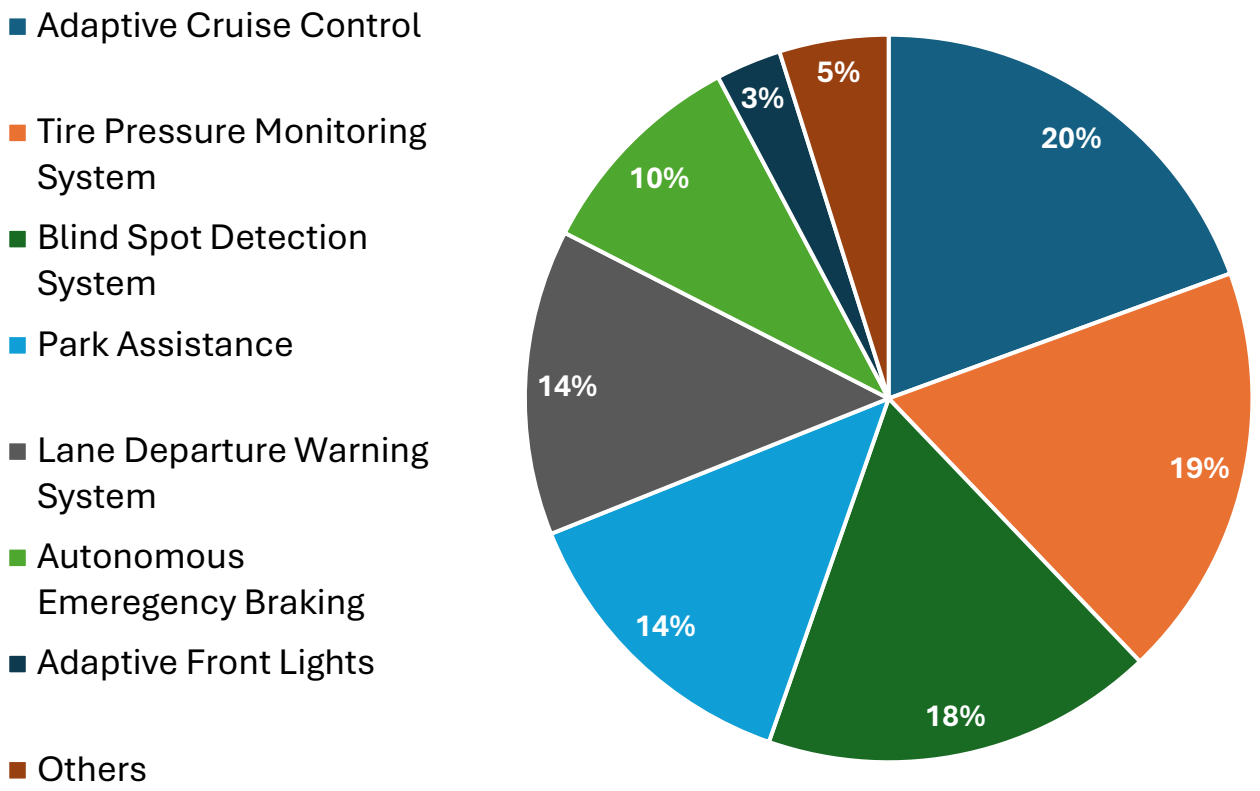
Source *Wipfli Analysis, AutoForecastSolutions (AFS), Grandview Research, Fortune Business Insights, Credence Research*

ADAS Growth Forecast – North America

Adaptive cruise control (20%), tire pressure monitoring systems (19%), and blind spot detection systems(18%) are the dominant ADAS application in the U.S. market.

In 2024, these technologies comprised 57% of the U.S. ADAS market. Parking assistance systems, at 14%, are the next-highest share application.

U.S. ADAS Market by Application (2024)



Source *Wipfli Analysis, Source: Market Research Future, Mordor Intelligence*

ADAS Growth Forecast – United States

While Light vehicle applications of ADAS technologies are expected to dominate through 2032, other mobility sectors are forecast to experience higher growth rates.

Despite lower volumes, Aerospace and Off-Highway applications are forecast to experience CAGR levels of 28.6% and 11.7%, respectively.

Growth by Mobility Sector

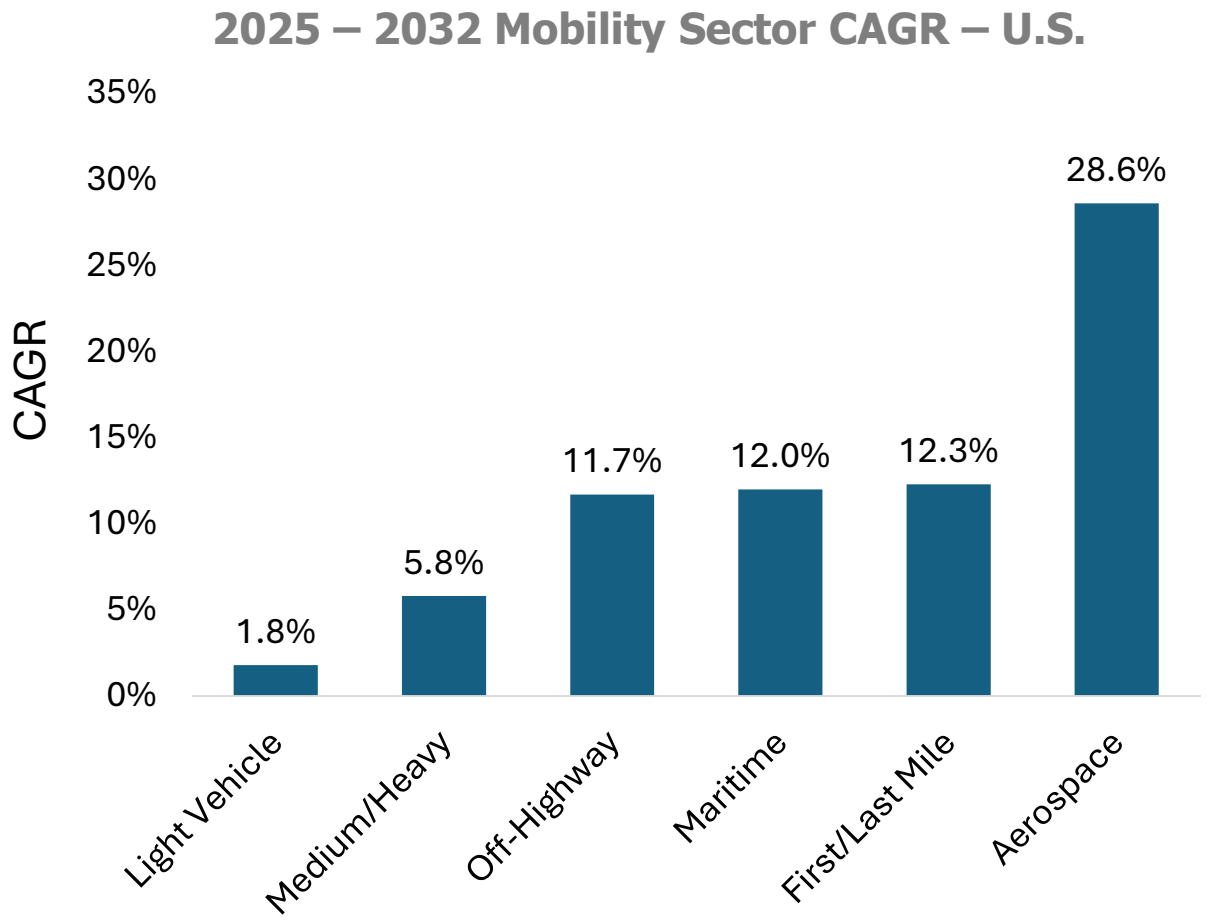
	2025 Market Volume (units)	2032 Market Volume (units)	Most Adopted Application
Light Vehicle – 1.8% CAGR (2025-2032)			
	8,522,716	**9,634,618**	**AEB, FCW, BSD, LDW**
Medium/Heavy Truck – 5.8% CAGR (2025-2032)			
	205,500	**304,480**	**AEB, FCW, BSD, LDW**
Off-Highway – 11.7% CAGR (2025-2032)			
	104,275	**226,627**	**AEB, BSD, RCW**
Maritime – 12.0% CAGR (2025–2032)			
	56	**124**	**Collision Avoidance**
Aerospace – 28.6% CAGR (2025-2032)			
	71	**412**	**Collision Avoidance**
First/Last-Mile Delivery – 12.3% CAGR (2025-2032)			
	290	**652**	**AEB, FCW, BSD**

Source *Wipfli Analysis, AutoForecastSolutions (AFS), Grandview Research, Fortune Business Insights, Credence Research*

Mobility Sector ADAS Growth Rates – United States

The U.S. mobility sector is projected to see its fastest growth in adjacent and emerging segments, led by aerospace (28.6% CAGR), followed by first/last mile, maritime, and off-highway vehicles, while traditional light vehicle growth remains modest at 1.8%.

The Detroit Region is uniquely positioned to lead this transition, leveraging decades of automotive expertise in engineering, manufacturing, and supply chain integration to expand into high-growth sectors such as aerospace, defense, maritime, and autonomous systems.



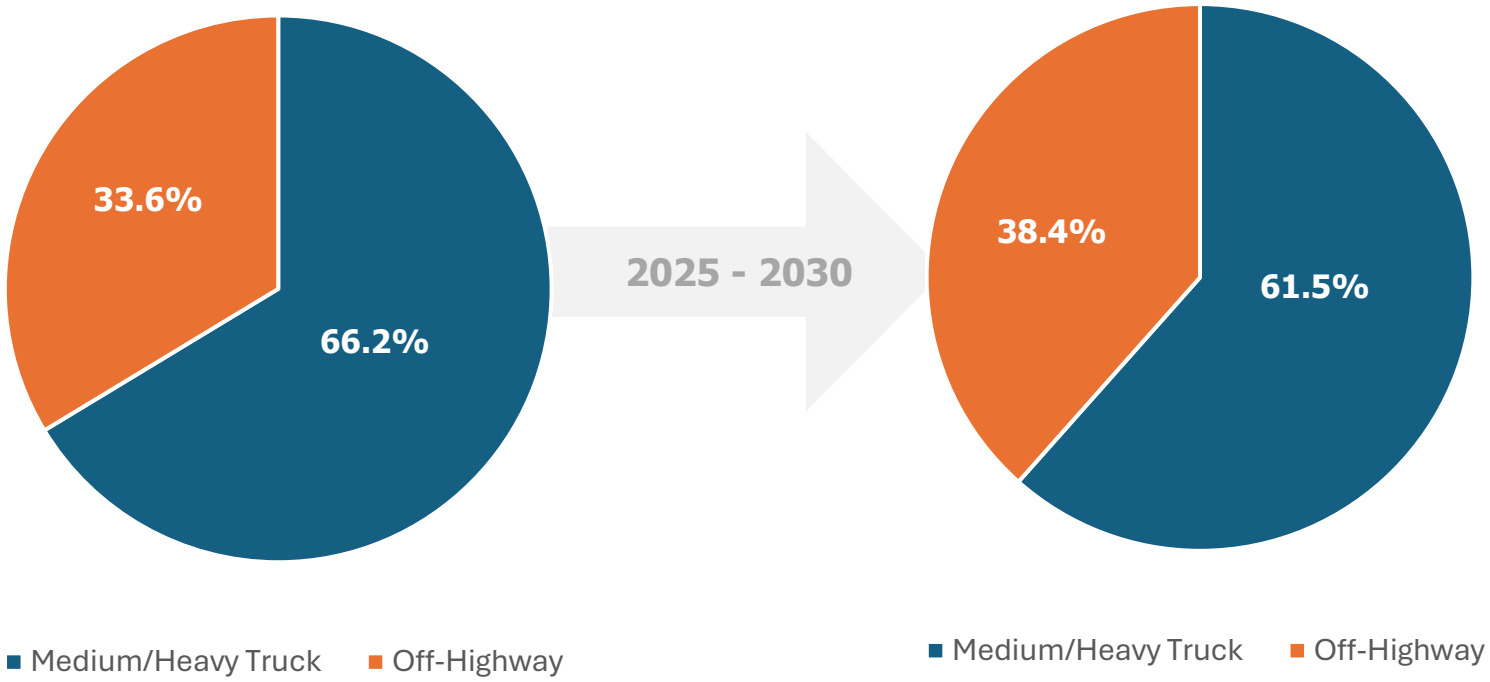
Source *Wipfli Analysis, AutoForecastSolutions (AFS), Grandview Research, Fortune Business Insights, Credence Research*

Medium/Heavy Duty and Off-Highway ADAS Growth – U.S.

The Medium/Heavy Truck and Off-Highway sectors dominate U.S. ADAS applications in the non-light vehicle mobility sectors, with a combined share of 99.8% in 2025 and 99.9% in 2030.

Off-Highway applications are forecast to increase from 33.6% in 2025 to 38.4% in 2030, resulting in Off-Highway applications accounting for 61.5% of U.S. non-light vehicle ADAS applications in 2030.

U.S. Non-LV Sector ADAS Share Forecast



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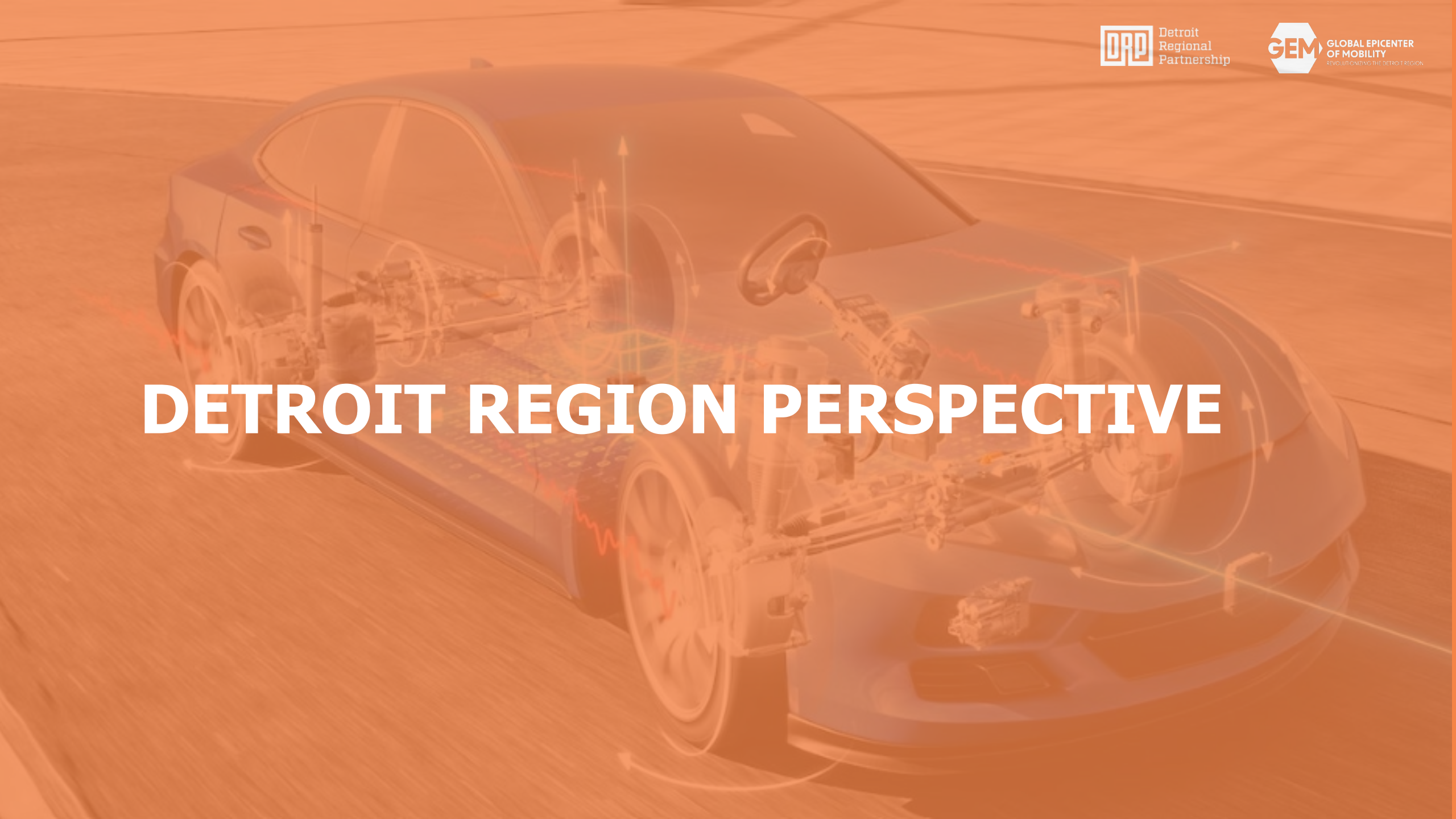


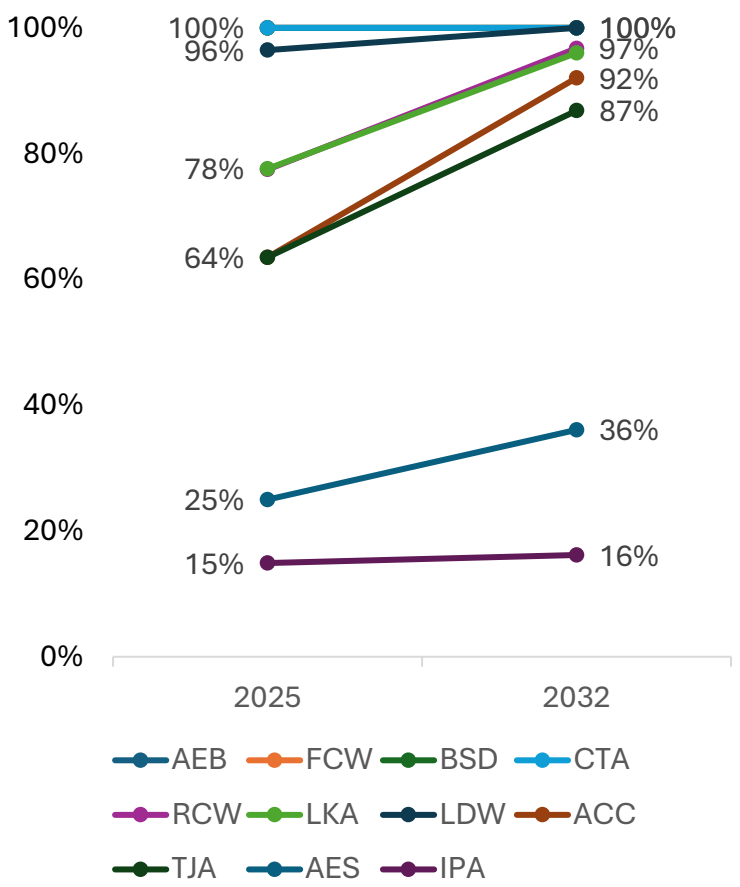
DETROIT REGION PERSPECTIVE

ADAS Adoption Rate Comparison – Detroit Region

The Detroit Region leads total United States in adoption rates of critical ADAS technologies, including automatic emergency braking, forward collision warning, blind spot detection, and cross traffic alert. This trend is driven by the higher content, increased complexity, and segment profile of the vehicles built in the Detroit Region.

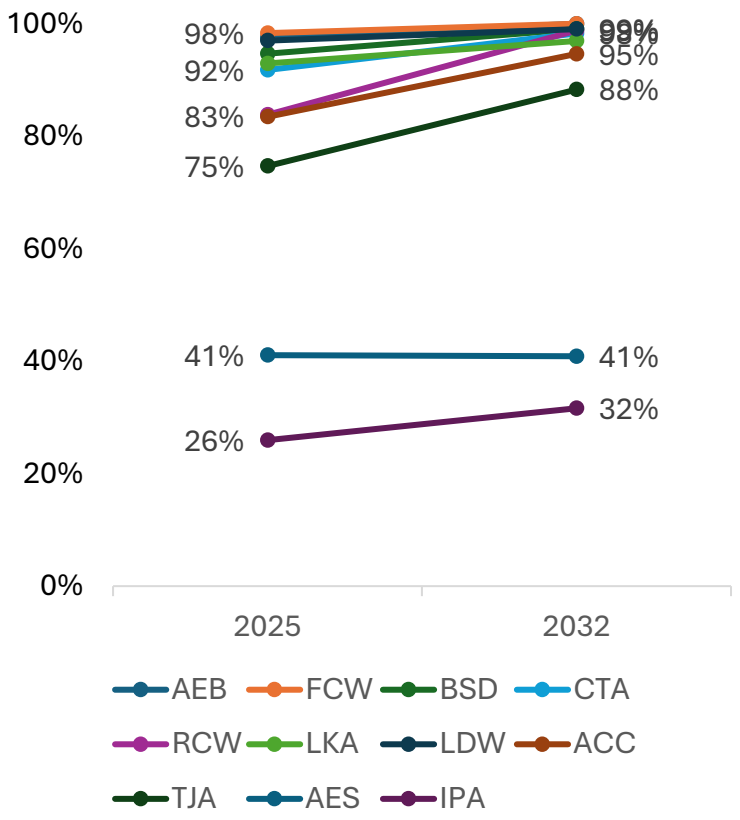
While all of these applications are forecast to experience significant growth through 2032, Adaptive Cruise Control and Traffic Jam Assist systems are expected to experience the most-rapid growth in Detroit Region-produced vehicle applications.

Detroit Region ADAS Technology Adoption Rates



Source: *North America ADAS Market Study, Wipfli*

United States (sans Detroit Region) ADAS Technology Adoption Rates



Source: *North America ADAS Market Study, Wipfli*

Detroit Region: Scaling Automotive Innovation Across Industries

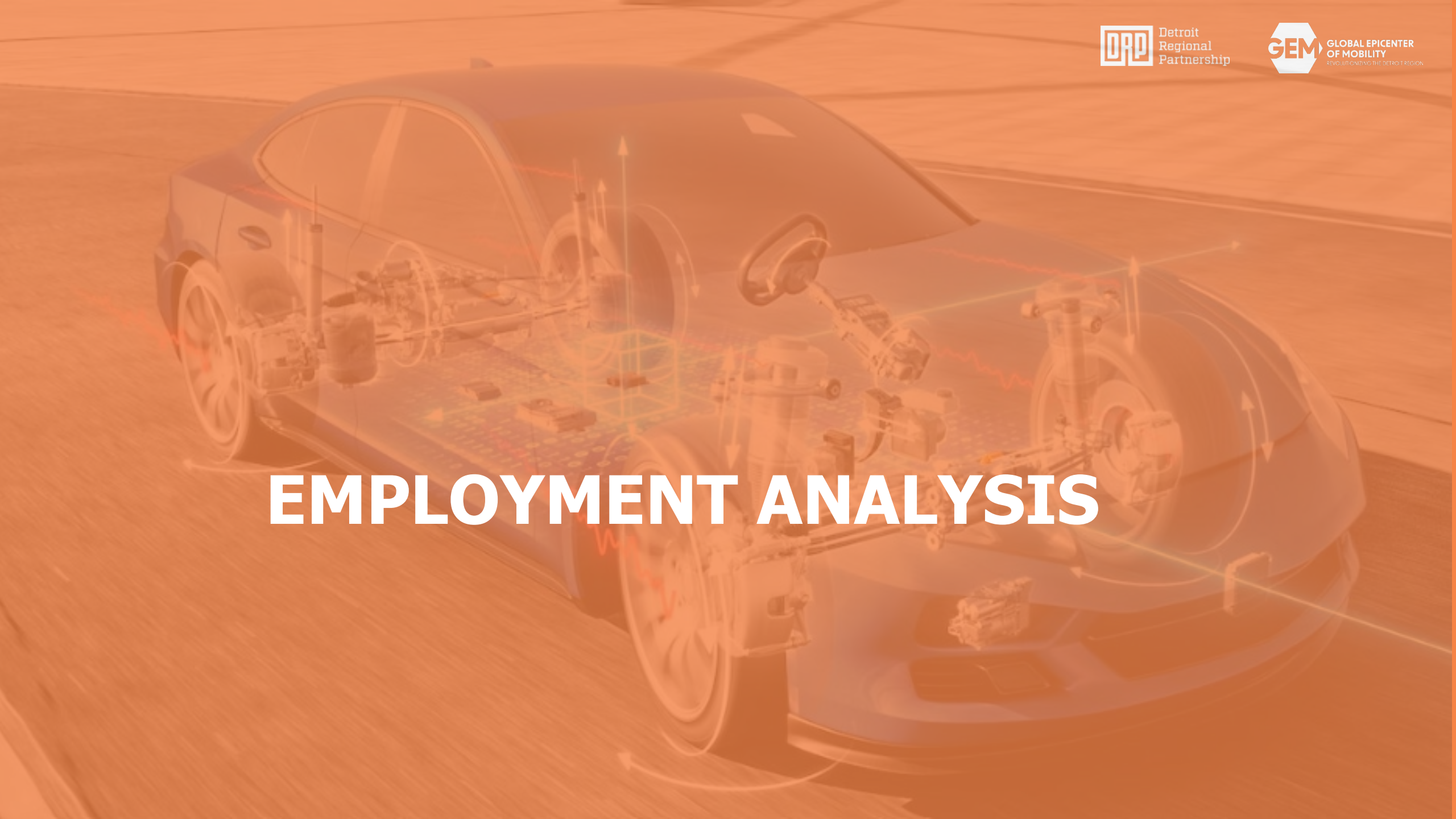
- Key strengths of the Detroit Region include:
  - Having the world's densest automotive engineering ecosystem
  - (DENSO, ZF, Bosch, Continental, Magna, etc.)
  - Extensive ADAS R&D, calibration, and software hubs.
  - Nation's leading autonomous testing infrastructure (ACM, Mcity).
  - The region has strong alignment with:
    - Defense mobility
    - Advanced aerial mobility (Michigan AAM initiative)
    - Great Lakes maritime
    - Off-road/industrial automation
- The Detroit region's supplier base has a cross-sector advantage and can repurpose automotive ADAS capabilities into:
  - Drones & eVTOL
  - Off-highway construction & mining
  - Maritime autonomy
  - Warehouse/logistics robotics
  - Defense unmanned systems
- These factors position the Detroit Region as a multi-modal autonomy hub, not just automotive-focused.

Detroit Region Insights

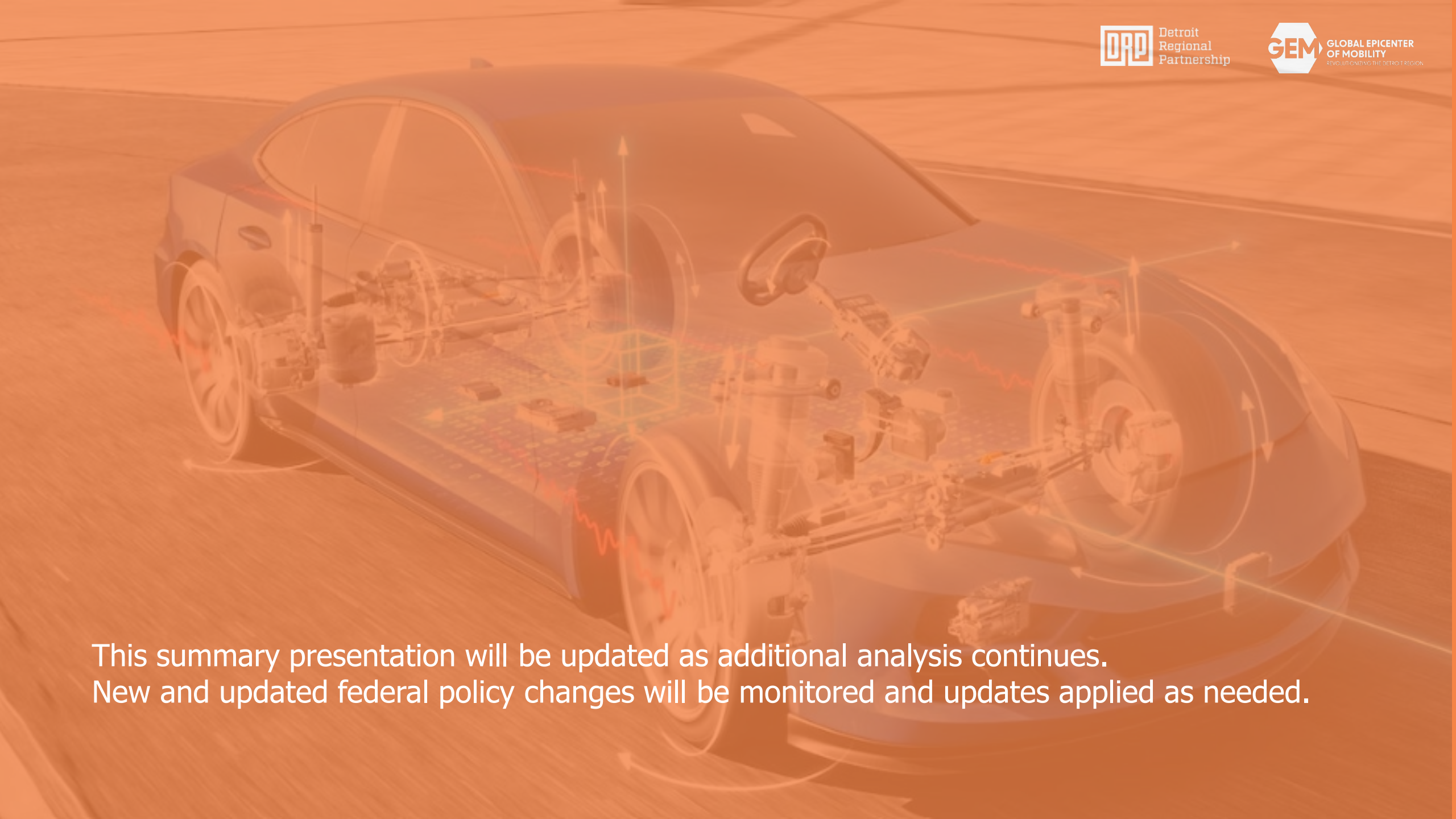
Detroit Region Strategic ADAS Priorities to Lead the Next Wave of Mobility

- Detroit is strategically positioned to lead in ADAS technologies across automotive and adjacent industries.
- Shifts from hardware toward software-defined mobility create long-term economic development opportunities.
- Federal mandates and safety regulations will drive significant near-term investment in ADAS technologies.
- Cross-sector convergence (aerospace, maritime, off-highway) allows DRP to attract mobility companies beyond automotive.
- High-growth areas for regional business development include:
  - AI & perception software
  - Sensor fusion & testing
  - Drone / UAS manufacturing & operations
  - Off-highway automation
  - Maritime autonomy R&D
  - Cybersecurity and OTA infrastructure

1. **Recruitment Targeting:**
   - AI perception firms, sensor manufacturers, drone/eVTOL companies, defense autonomy contractors.
2. **Sector Expansion:**
   - Promote Detroit's ADAS ecosystem to adjacent markets (construction, mining, maritime, aviation).
3. **Accelerator Opportunities:**
   - Support startups specializing in autonomy software, simulation, and mobility cybersecurity.
4. **Workforce Development:**
   - Strengthen pipelines in machine learning, robotics, embedded systems, automotive cybersecurity.
5. **Policy & Infrastructure:**
   - Expand dedicated testbeds and air/maritime autonomy corridors in the Detroit Region.



EMPLOYMENT ANALYSIS



This summary presentation will be updated as additional analysis continues.
New and updated federal policy changes will be monitored and updates applied as needed.