Annual Report

2025

Ford · GM · Stellantis

USCAR

UNITED STATES COUNCIL FOR AUTOMOTIVE RESEARCH

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By Technical Leadership Council (TLC) or Technical Area:

OPERATIONS & OVERVIEW

USCAR
UNITED STATES COUNCIL FOR AUTOMOTIVE RESEARCH

WHAT IS USCAR?

"The collaborative automotive technology of Ford, GM and Stellantis"

Founded in 1992 – 34 years old

Wholly owned by Ford, GM and Stellantis

Projects funded by Ford, GM and Stellantis as well as the US government, suppliers and additional OEMs

Focus on global industry issues but primarily US projects

CURRENT MISSION

The mission of USCAR is to create value for our three members by accelerating the development of enabling automotive technologies that address the personal transportation needs of our customers and society, while contributing to national economic security and safeguarding the environment. This value proposition is achieved principally by identifying common areas of interest and organizing teams who engage in activities that leverage the resources of the members and others to generate knowledge and results which can be independently applied by each member.

USCAR BY THE NUMBERS

3

Member Companies

>6

Primary Technical Research Areas

~50

Teams and Working Groups

500+

Active Participants

~10

USCAR Staff Members

>80

Projects

2025 KEY DATES & ACTIVITIES

GOVERNMENT FUNDING

- USABC award for $60M grant through U.S. Department of Energy (DOE) Vehicle Technologies Office (VTO)* funding opportunity announcement in 2024, received official approval to kickoff
- Announced nine USABC Requests For Proposal Information (RFPIs) to support research accelerating battery innovation, domestic supply chain security, and cost-positive recycling solutions.
- Advanced opportunities with DOE Advanced Materials and Manufacturing Technologies Office (AMMTO) and other entities for an Automotive Smart Manufacturing Innovation Center; briefed AMMTO, held meetings with Society of Manufacturing Engineers, Michigan Economic Development Corporation, Oakland County and IACMI - Institute for Advanced Composites Manufacturing Innovation.
- Received congressional support for a USAMP automotive materials research consortium through DOE VTO and AMMTO.

GOVERNMENT INFLUENCE

- Continued regular meetings with US DRIVE and 21st Century Truck (21CTP) partnership leadership and monthly meetings with VTO program director.
- Briefed senior advisor for the Principal Deputy Assistant Secretary and all DOE Sustainable Transportation Program Managers during June US DRIVE Executive Steering Group meeting.
- Re-established work in liquid fuels through the US DRIVE and 21CTP Fuels Innovation Joint Tech Team.

PUBLIC INFLUENCE

Published two USCAR white papers:

- Automotive Semiconductor Device Standardization
- Need for an Automotive Smart Manufacturing Innovation Center

OPERATIONS

- Reassigned hydrogen work to Advanced Propulsion TLC (year-end); refreshed org structure to ensure awareness and oversight of Specification Teams
- Staff update: 3 new staff members (General Counsel, Materials, Admin)

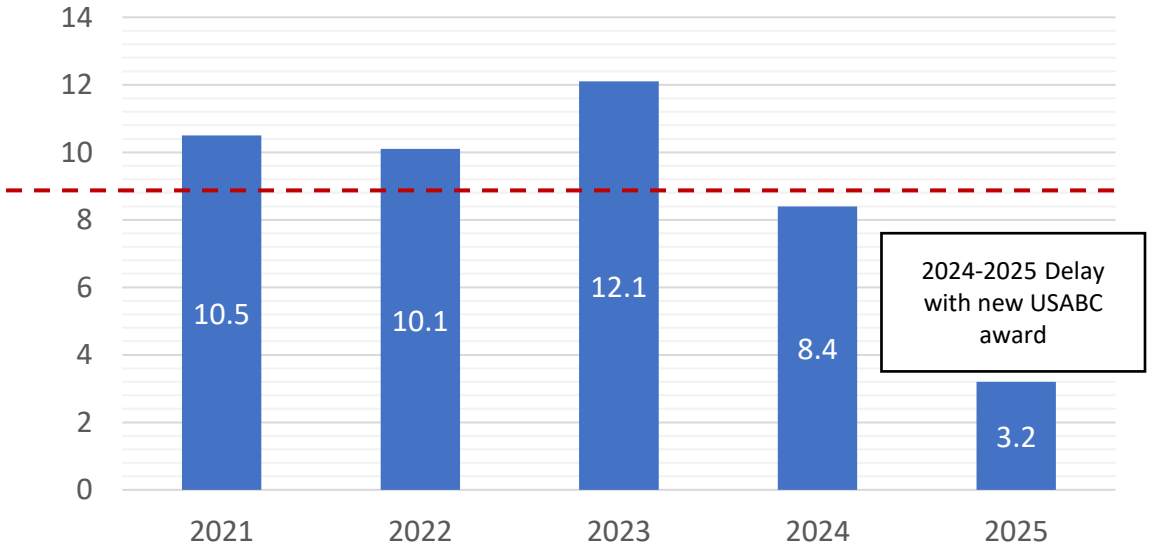
**The Vehicle Technologies Office was renamed the Transportation Technologies Office in early 2026*

FINANCIAL LEVERAGE – 8.9x

Multiple of spending for Each $1 of average member cash contribution by year over the past 5 pears

8.9x

5-Year Average



	2021	2022	2023	2024	2025
Average Cash Investments ($M)	1.73	1.97	2.0	2.21	3.16
USCAR total spend ($M)	18.15	19.94	24.16	18.45	10.22

Not counted: Influences>$100M DOE and National Lab research in light-duty research and ~$60M in heavy-duty research annually.

Influences and shapes U.S. government energy and transportation policy

2024-2025 decrease due to DOE delay in USABC agreement

- *Total spend including USCAR OEM members, government (DOE/National Labs) and suppliers divided by Average Member Cash contributions.*

USCAR TEAMS

December 2025

USCAR Leadership Group (ULG)
Cynthia Flanigan
Maureen August
Diana Zielonka
Steve Przesmitzki

Council
Matt Jones
Paul Krajewski
Tim Heinrich

- Cooperative Agreement, CRADA or MOU
- U.S. DRIVE/21CTP Tech Team
- New/Emerging Team
- Working Group (WG)
- Specification-Only Team (ST)
- Data Exchange Team (DET)

Technical Leadership Councils (TLCs)

Advanced Propulsion
T. McCarthy
S. Naik
H. Santoso

- Auto Industry Govt Emissions Research (AIGER)
- Fuel Cell JTT
- Grid Integration JTT
- Integrated Systems Analysis JTT
- Engine Benchmarking WG
- Fuel Cell Benchmarking WG
- Light Duty OBD WG

Electrical + Electronics
TBD
J. D'Ambrosio
TBD

- Electric Drive TT
- Fuels Innovation JTT
- Hydrogen JTT
- Electrified Propulsion WG
- EVAP WG
- Fuels WG
- Hydrogen Fuel System Component WG
- Aftertreatment Data Exchange

Electrical + Electronics
TBD
J. D'Ambrosio
TBD

- Advanced Compute TT
- Lighting WG
- Electrical Wiring Component Partnership (EWCAP)

Energy Storage
K. Snyder
G. Cintra
O. Gross

- U.S. Advanced Battery Consortium (USABC)
- Batteries TT

Manufacturing
M. Bastian
J. Arinez
J. Weber

- Body Structures/ Stamping WG
- Ergonomics WG
- Manufacturing Safety WG
- Smart Manufacturing WG
- Fasteners ST
- Paint ST

Materials
M. Nichols
X. Huang
B. Macek

- U.S. Auto Materials Partnership (USAMP)
- Materials TT
- Eng. Materials WG
- Substances of Concern & Vehicle Interior Air Quality WG (SOC-VIAQ)
  - Extended Producer Responsibility
  - PFAS
  - Prop 65
  - Substance Data Collection
  - Stockholm POPs
- Sustainable Materials WG

Safety
S. Barbat
N. Nagappala
K. Chitoor

- Crash Safety WG
- Occupant Safety Research Partnership (OSRP)
- Active Restraints ST

ULG
C. Flanigan
M. August
D. Zielonka

- Vehicle & Mobility Systems Analysis JTT
- Semiconductors WG
- Aero WG
- Oil Filters ST
- Oil Pumps ST
- Vehicle arch. Data Exchange WG

Org Changes
- Realigned Team
- Specification Team
- Archived Team (N/A 2025)
- Sunset Team (N/A 2025)

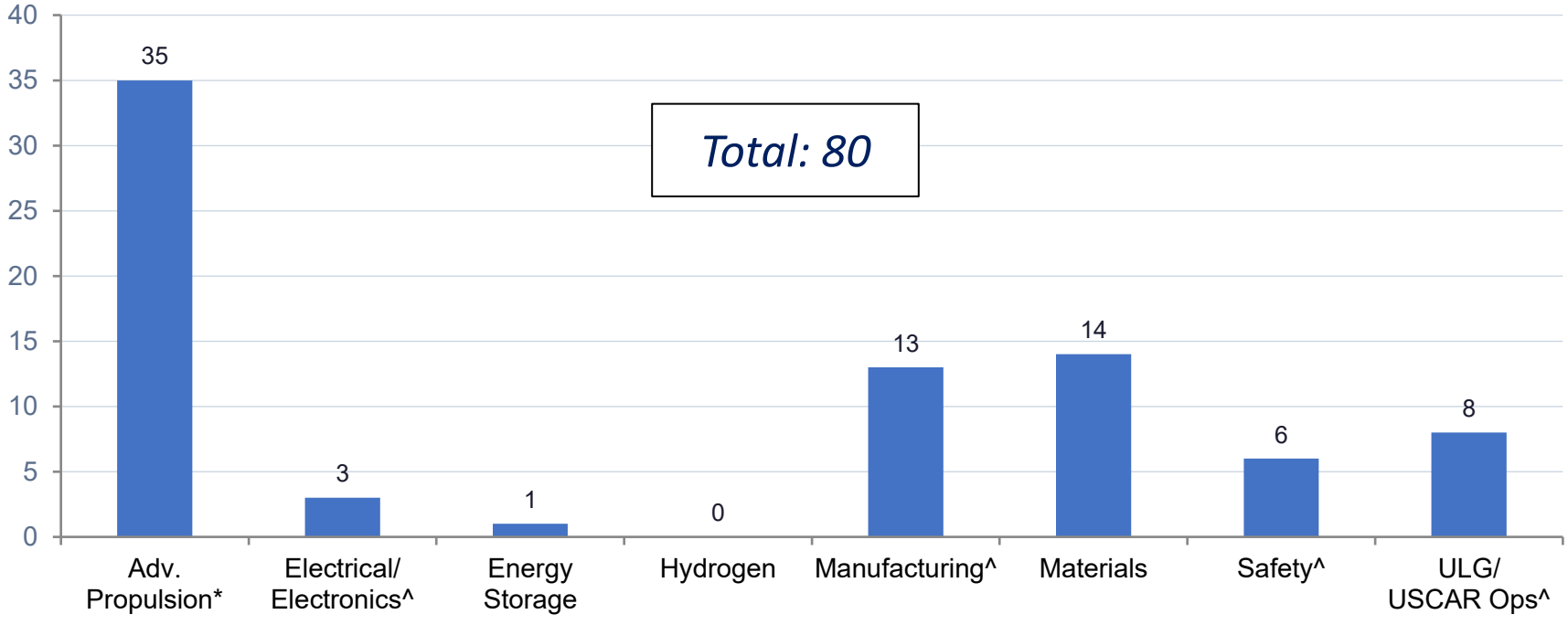
USCAR Operations

- TT/JTT – Tech Team, Joint Tech Team
- WG – Working Group

- Business & Technical Support (BTS)
- Finance (FiSh)
- Industry Gov't Relations (IGR)
- Communications
- Other – Legal, Real Estate

PROJECTS BY TLC

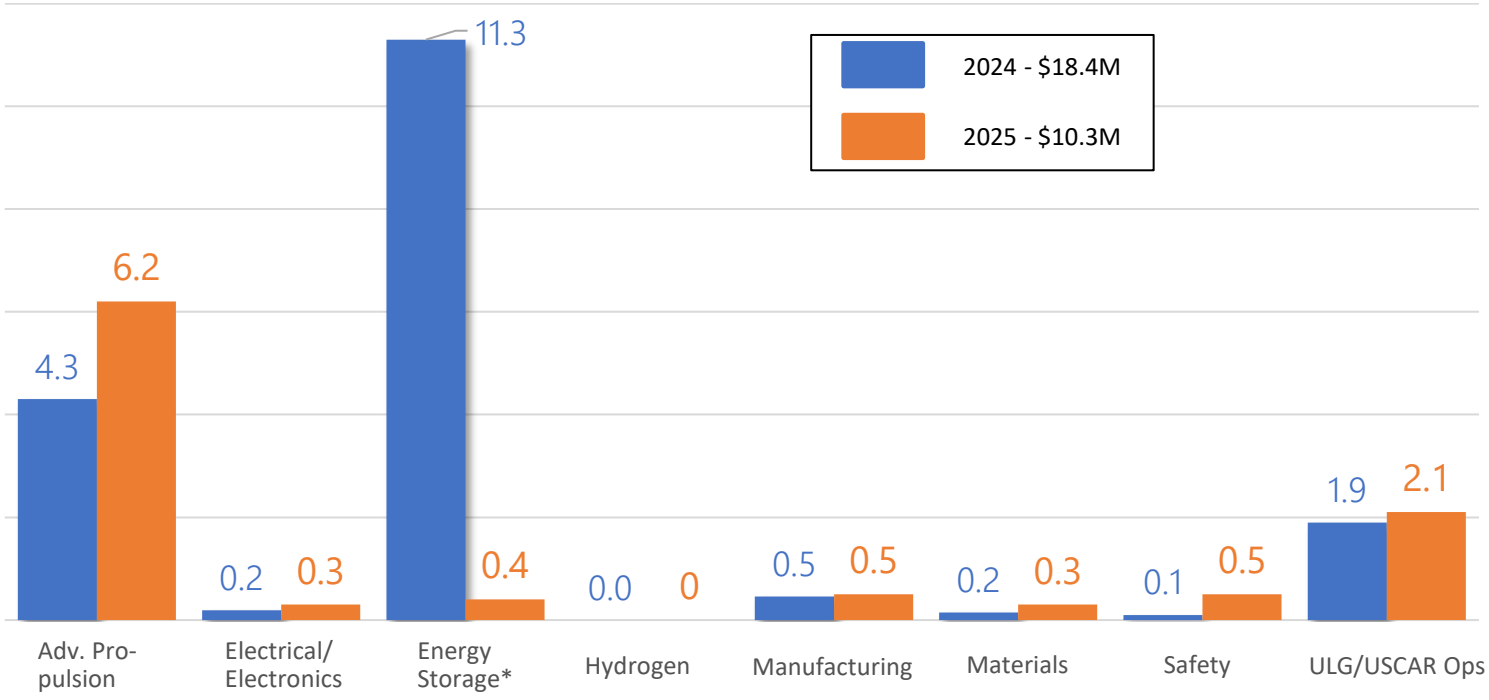
2025 Project and Initiative Count by Technical Area (estimate)



** Advanced Propulsion includes vehicle and propulsion benchmarking projects ^ Includes Specification Team work*

SPEND BY TLC

2024 and 2025 Project and Initiative Spend By Technical Area (estimate) · US$ Millions



** Energy Storage (USABC) primarily funded by Dept of Energy grant; new agreement funding begins 2026*

US DRIVE PARTNERSHIP (US DOE and USCAR)

Driving Research and Innovation for Vehicle Efficiency and Energy Sustainability

ABOUT US DRIVE

US DRIVE is a non-binding and voluntary government-industry partnership focused on advanced automotive and related energy infrastructure technology R&D. The Partnership is a forum for pre-competitive technical information exchange among partners to discuss R&D needs, develop joint goals and technology roadmaps, and evaluate R&D progress for a broad range of technical areas. By providing a framework for frequent and regular interaction among technical experts in a common area of expertise, the Partnership accelerates technical progress and helps avoid duplication of efforts.

PARTNERS

Automotive: USCAR

Federal Government: U.S. Department of Energy

Electric Utility: American Electric Power, DTE Energy, Duke Energy, Electric Power Research Institute and Southern California Edison

Energy/Oil: BP America, Chevron, ExxonMobil, Phillips 66 and Shell Oil Products US

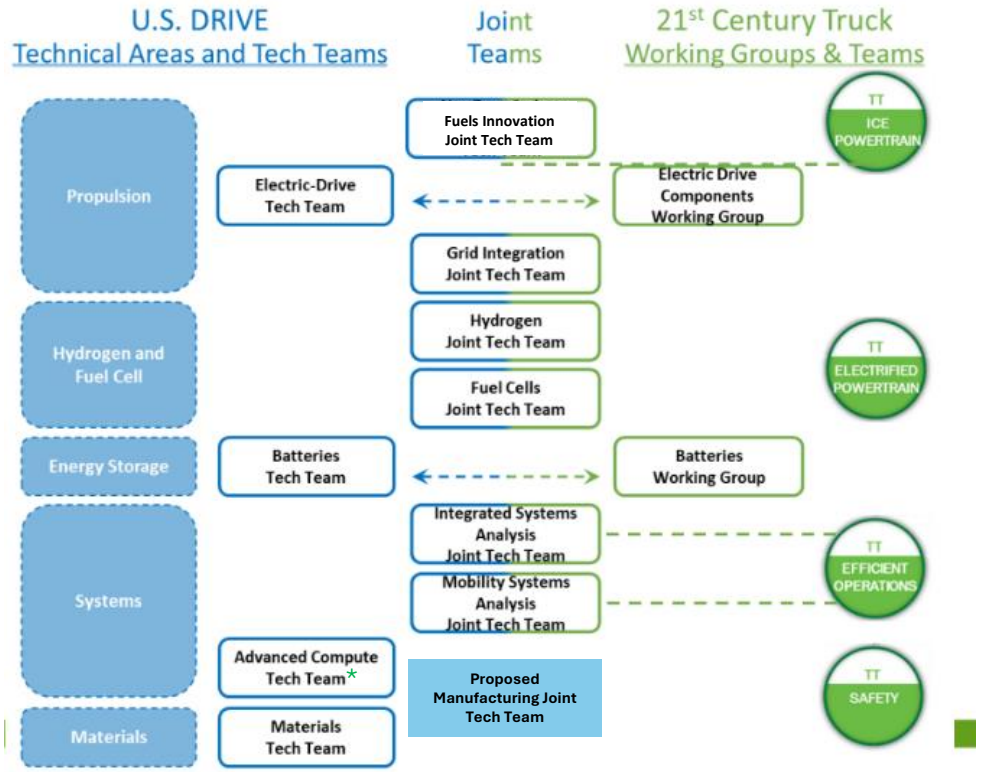
2025 US DRIVE OPERATIONAL ACCOMPLISHMENTS

- Re-established work in liquid fuels through the Fuels Innovation Joint Tech Team
- Progressed towards establishing Manufacturing Tech Team
- Began exploration of potential to re-scope Advanced Compute Tech Team with quantum focus

LINKS

- US DRIVE Page: https://www.energy.gov/eere/vehicles/us-drive
- Partnership Plan: https://www.energy.gov/sites/default/files/2022-06/USDRIVE%20Partnership%20Plan_072022.pdf

US DRIVE & 21ST CENTURY TRUCK PARTNERSHIP TECH TEAMS



*Rescope Proposed

TECHNICAL LEADERSHIP COUNCIL (TLC) REPORTS

USCAR
UNITED STATES COUNCIL FOR AUTOMOTIVE RESEARCH

ADVANCED PROPULSION TLC

TLC SCOPE

To lead and drive all collaborative advanced propulsion activities to achieve leadership in technical knowledge and capability for the USCAR members

TLC LEADS

Thomas McCarthy, Ford · Sanjeev Naik, GM · Halim Santoso, Stellantis

TLC TEAMS

Aftertreatment Data Exchange · Auto Industry Government Emissions Research (AIGER) · Electric Drive Tech Team · Electrified Propulsion Working Group · Engine Benchmarking Working Group (w/NVH SubTeam) · Evaporative Emissions Working Group · Fuels Innovation Joint Tech Team · Fuels Working Group · Grid Integration Tech Team (GITT) · Integrated Systems Analysis Tech Team (ISATT) · On Board Diagnostics Working Group

VALUE STATEMENT

- As one of the largest and most diverse TLCs within USCAR, the APTLC derives values in several ways:
- Influence US DOE investments to accelerate sustainable pathways for propulsion.
- Influence future regulations through collaborative actions for both the OBD & Evaporative Emissions working groups.
- Influence future emissions & energy management certification procedures through collaboration between AIGER and the regulatory agencies.
- Realize cost savings on vehicle benchmarking better than 3:1 leverage on cash investment (split 3+ ways, plus volume discounts) and data sharing.

KEY 2025 ACCOMPLISHMENTS

- Re-established the DOE Net Zero Carbon Liquid Fuels Tech Team as the Fuels Innovation Joint Tech Team, now led by BioEnergy Technologies Office (BETO), focusing on drop-in, bio-based liquid fuels.
- Propulsion Benchmarking completed and ongoing work encompasses 24 vehicles split across BEVS, PHEVS, HEVS, and ICE vehicles. 2025 – approximately $6M benchmarking value for ~$1.6M cash contribution per member.
- DOE-led study grid preparedness kicked off in May 2025 (GITT and ISATT participating).

ADVANCED PROPULSION TLC ORGANIZATION

Working Group Name
Ford/GM/Stellantis Lead

Concentration area, not a WG

Operating under a cooperative agreement

US DRIVE/21CTP Tech Team

Aftertreatment Data Exchange
Aasari Srinivasan / Rahul Mittal / Vence Easterling

Auto Industry Govt Emissions Research (AIGER)
Darius Harrison / Steve DeCarteret / Mahmoud Yassine

Electric Drive Tech Team
Krishna Bhat / Avoki Omekanda / Pradeep Attibele

Electrified Propulsion Working Group
Hong Jiang / Azadeh Narimissa / Mark Levine

Engine Benchmarking Working Group
Jason Martz / Azadeh Narimissa / Mario Echeverri Lopez & Kevin Rock

EVAP Working Group
Scott Bohr / Steven Horetski / Michael Grote

Fuels Innovation Joint Tech Team
Jim Anderson / Elana Chapman / Michael Moore

Fuels Working Group
Jim Anderson / Elana Chapman / Asim Iqbal

Grid Integration Joint Tech Team
Sunil Goyal / Orgun Guralp / Richard Scholer

Integrated Systems Analysis Joint Tech Team
Hyung Chul Kim / Ian Sutherland / Marcela Arrambide

Light Duty OBD Working Group
Suzie Stuber / Janean Potter / Yichao Guo

Noise, Vibration & Harshness
Bert Bradley / Thomas Archer / Jeffrey Orzechowski

ELECTRICAL/ELECTRONICS TLC

TLC SCOPE

To work collaboratively to create common, foundational electrical/electronic technologies, electronic controls, software, and standards that enable the members to focus efficiently and effectively within their own companies on competitive strategies for automotive electronics.

TLC LEADS

TBD, Ford · Joe D'Ambrosio, GM · TBD, Stellantis

TLC TEAMS

Adv. Compute Tech Team* · Electrical Wiring Component Applications Partnership (EWCAP) · EWCAP High Voltage Connectors · Lighting Working Group

**Rescope under consideration*

VALUE STATEMENT

- Use of shared technology by the OEM member companies brings a three-times cost reduction multiplier for wire harness component research. This advantage applies to both shared designs and test methods.
- Common specifications and validation tests for lighting lowers development costs for OEMs and suppliers.

KEY 2025 ACCOMPLISHMENTS

- EWCAP/ISO activities: Transferred US Technical Advisory Group ownership to EWCAP manager.
- Standards work included Ethernet & RF for high-speed connection systems, airbag inflator pocket improvements, and high voltage connectors
- Collaborated with MTLC on USCAR-25 Standard and Semiconductors working group on white paper.
- New initiative: Initiated USCAR-55, shield crimp specification for specialty cables (EMC)

ENERGY STORAGE TLC

TLC SCOPE

Guide and direct domestic electrochemical energy storage (EES) R&D relevant to the automotive industry through a consortium that engages automobile manufacturers, EES manufacturers, the Department of Energy, national laboratories, universities, and other stakeholders.

TLC LEADS

Kent Snyder, Ford (2025 chair) · George Cintra, GM · Oliver Gross, Stellantis

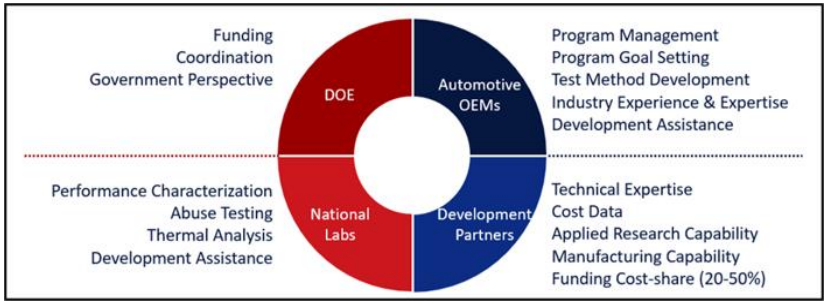
TLC TEAMS

TECHNICAL ADVISORY COMMITTEE

Matt Denlinger, Ford (2025 chair) · Meng Jiang, GM · Lamuel David, Stellantis

US DRIVE BATTERIES TECH TEAM

Kent Snyder, Ford · Vijay Saharan, GM · Trey Weaver, Stellantis



VALUE STATEMENT

- Leverages the technological and financial resources of the OEMs, industry experts, national laboratories, and the Department of Energy (DOE) to accelerate the commercialization of next-gen electrified vehicles. The collective strength drives efficient project outcomes and supports U.S. based battery innovation—reducing costs, easing range anxiety, and advancing recycling technologies.
- Accessing and leveraging strengths and capabilities leads to more efficient and effective project outcomes. This supports activities that advance the development of electric vehicles and the movement towards mass adoption.

KEY 2025 ACCOMPLISHMENTS

- Secured DOE approval for the USABC RFPI template, which provides a comprehensive framework for detailing key technological areas essential for achieving the program's strategic objectives.
- Updated the test manuals portfolio. These manuals standardize the testing protocols and serve as an important resource for evaluating project outcomes.
- Redesigned the USABC website to serve as the primary platform for collaborator engagement and funding applications, and launched a dedicated SharePoint site as a secure, centralized repository for documents and team collaboration.
- Released nine (9) Requests for Proposals to secure development partners that demonstrate the ability to meet or exceed defined performance benchmarks and commercialization objectives.

HYDROGEN & FUEL CELL TLC

TLC SCOPE

To facilitate technological developments based upon roadmaps and targets that enable the USCAR Members to successfully deploy hydrogen fuel cells for automotive propulsion, in support of environmental and energy diversity objectives, for the benefit of society.

Future hydrogen and fuel cell work to be overseen by Advanced Propulsion TLC.

TLC LEADS

Mike Veenstra, Ford · Vacant, GM · Vacant, Stellantis

TLC TEAMS

Fuel Cell JTT · Hydrogen JTT · Fuel Cell Benchmarking WG · Hydrogen Fuel System Component WG

VALUE STATEMENT

- The Hydrogen & Fuel Cell TLC provides significant value as a powerful, single voice to communicate USCAR's position and priorities to DOE & other entities regarding hydrogen infrastructure, on-board hydrogen storage, and fuel cell systems.
- Utilized whitepapers in mutual areas of collaboration to drive funding and targets.

KEY 2025 ACCOMPLISHMENTS

- Mike Veenstra named industry co-chair of US DRIVE Hydrogen Fuel Cell Tech Team.

MANUFACTURING TLC

TLC SCOPE

To champion and drive collaboration among USCAR members and leveraged partners in advanced manufacturing development, that results in high value, cost effective benefits. MTLC has been changing the landscape of projects from tactical to strategic, raising the bar for the entire industry.

TLC LEADS

Mike Bastian, Ford (2025 Chair) · Jeff Abell (retired 2025)/Jorge Arinez, GM · Joe Weber, Stellantis

TLC TEAMS

Body Structures/Stamping Working Group · Ergonomics Working Group · Manufacturing Safety Working Group · Smart Manufacturing Working Group

VALUE STATEMENT

- MTLC has advanced the U.S. automotive industry with research projects in stamping technologies, ergonomic analysis, smart manufacturing, and collaboration on occupational safety.
- Projects represent a typical of 3:1 cost share leverage.

KEY 2025 ACCOMPLISHMENTS

- Leveraging learnings from AI software development for stamping quality in a follow-on project with Korea Advanced Institute of Science & Technology
- Ergonomics standards Justification USCAR-25 for Electrical Connections
- Modeling Hand Fatigue and Recovery
- Implementation of Industrial Machine Data Communication Standards (USCAR-53)
- Publication of a white paper detailing the need for an Automotive Smart Manufacturing Innovation Center

MATERIALS TLC

TLC SCOPE

To collaboratively develop materials technology and associated manufacturing processes that are relevant to the needs of the United States Council for Automotive Research (USCAR) LLC, member companies.

TLC LEADS

Mark Nichols, Ford · Xiaosong Huang, GM · Bryan Macek, Stellantis

TLC TEAMS

Corrosion (finishing last project) · Engineering Materials – Strain-Rate Dependent Fracture & Fatigue Testing (SRDFF) · Materials Tech Team · Substances of Concern – Vehicle Interior Air Quality (SOC-VIAQ) & its 5 subgroups · Sustainable Materials Working Group (SMWG)

VALUE STATEMENT

- The Materials TLC and its projects aid OEMs in the development and implementation of new materials for lightweighting and sustainability. Collaboration between the member OEMs helps to identify material goals/metrics to quantify the value of proposed projects. In addition, they identify R&D pathways to address technical challenges such as the creation of more robust material supply chains, development of high throughput manufacturing, and the advancement of sustainable recycling and recovery strategies.
- Resources and funding are needed to collect and generate data for modeling. Working together and sharing resources saves money, resources, time, energy, and provides the member OEMs with a 3:1 cost leverage on projects plus potential multimillion dollar regulatory cost avoidance through SOC-VIAQ.

KEY 2025 ACCOMPLISHMENTS

- Final draft of a Critical Materials white paper completed, publication planned for early 2026.
- Received congressional support for a USAMP automotive materials research consortium through DOE VTO and AMMTO.
- SMWG: Began a project to assess logistics of recycling bumper fascia polymers; writing a white paper on sustainability; establishing a common standard for recycled polypropylene
- Engineering Materials: Phase 5 materials testing has been ongoing, and results are being reported out on in the working group. Testing plans for 2026 are being finalized and will include recycled materials.
- SOC-VIAQ: On-going efforts heavily focused on global PFAS reporting and prohibition obligations. 2025's main deliverables were a data visualization management dashboard, engagement with the Alliance for Automotive Innovation, and renewed engagement of data collection workshops with 9 total OEMs.
- Corrosion: Completed a project to establish a comprehensive and high-quality electrochemical database for automotive construction materials. This database enables the development of digital tools for prediction of galvanic corrosion risk in early stages of vehicle design.

SAFETY TLC

TLC SCOPE

To identify challenges, technical issues, and vehicle accident safety research needs, and to conduct or direct pre-competitive leveraged research in automotive safety.

TLC LEADS

Saeed Barbat, Ford · Naveen Nagappala, GM · Karthik Chitoor, Stellantis

TLC TEAMS

Active Restraints Specification Team (moved from E/E TLC, Oct. 2025) · Crash Safety Working Group (CSWG) · Occupant Safety Research Partnership (OSRP)

VALUE STATEMENT

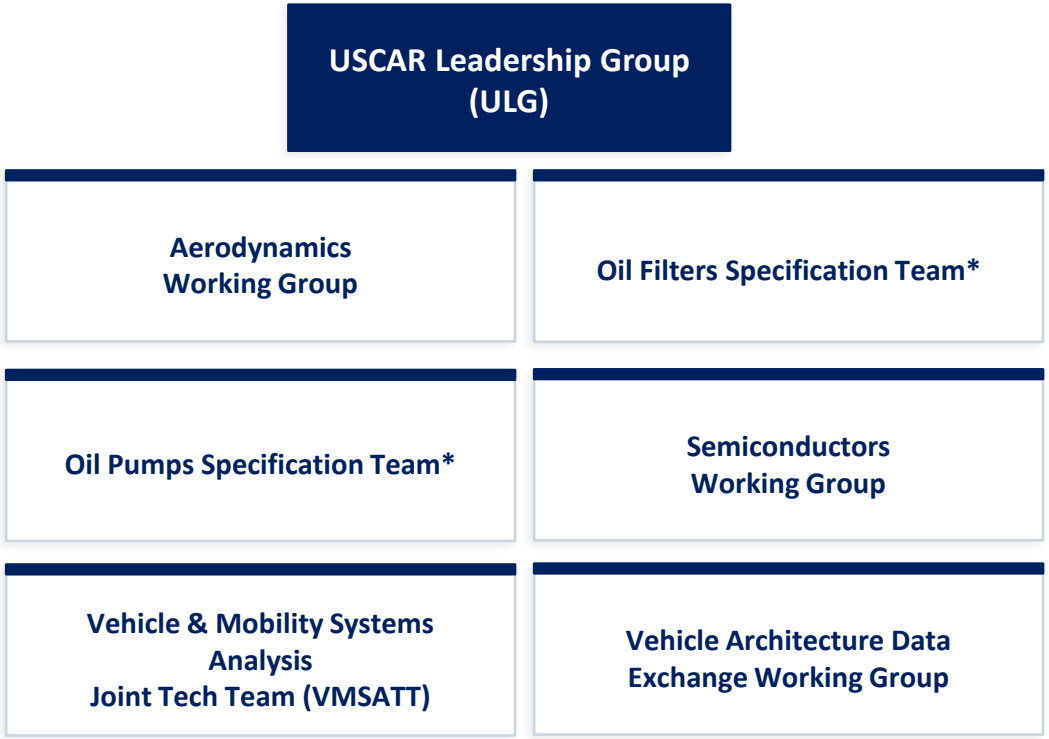
- In 2025, the Safety TLC maintained its focus on evaluating how environmental regulations and emerging technologies influence vehicle design and safety, while also advancing its understanding of the response characteristics of Anthropomorphic Test Devices (ATDs) in relation to potential regulatory requirements and vehicle engineering.
- All costs are shared among three members for a 3:1 leverage on investment.

KEY 2025 ACCOMPLISHMENTS

- CSWG: Developed CAE methodology for modeling Lithium-Ion cylindrical cells and battery packs to understand Intrusion effect on High Voltage (HV) packs. CAE Modeling completed and is being used for physical testing parameters. Sled test fixture completed.
- CSWG: Sled testing and Validation of the strain rate dependent models, cells, and pack planned to be completed.
- CSWG: Developed Brain Injury Criteria Evaluation project RFQ; contractor selected, Statement of Work created. IIHS & NHTSA are actively looking into introducing brain injury metrics.
- OSRP: Ongoing testing of the WorldSID-50M RibEye™ ATD to evaluate the impact of ISO and NHTSA shoulder pads on standard response metrics. Study scheduled for completion in 2026.
- OSRP: Calibration tests with RibEye™ ATD completed and have successfully passed certification. Pendulum tests with ISO shoulder pad complete. SACO shoulder pad tests and fiber optic rib evaluation ongoing.
- OSRP: Assessment of THOR–50M vs H3-50M for repeatability, reproducibility, durability, and ease of use. Testing completed on a Gold Standard Buck at Calspan. Data analysis is ongoing.

USCAR LEADERSHIP GROUP 'TLC'

There is not an overall 'summary' for the USCAR Leadership Group (ULG) 'TLC' as this is a group of unrelated teams



*No report or activity in 2025

ULG TLC: AERODYNAMICS WORKING GROUP

TLC SCOPE

Through the Aero Data Exchange, member OEMs measure wind tunnel data on competitive vehicles to minimize duplication of effort and maximize value of the testing. The Aero Working Group also collaborates on best practices and standards for aero testing as well as safety practices.

TEAM LEADS

Alex Nastov, GM · Greg Fadler, Stellantis · Shaun Skinner, Ford

KEY 2025 ACCOMPLISHMENTS

- Phase 2 Correlation Testing – with the Stellantis upgrade to a 5-belt moving ground plane late 2024, each OEM now has a rolling road wind tunnel. Round-robin correlation test for additional 3 vehicles (6 vehicles total) completed, and correlation curves have been updated and in usage.
- SAE WCX publication for 2026 – with each OEM upgraded to state-of-the-art rolling road wind tunnels, publication to document correlation.
- Focused technical discussions on new test processes, new facilities, and competitive vehicle aerodynamics (Aero of the Month).

VALUE STATEMENT

- 2025 year to date, 18 vehicles have been added to the Aero Data Exchange, resulting in 67% savings to members, note each vehicle received is ~$20k per OEM per vehicle.
- Continuous exchange of safety best practices to ensure people, vehicle and facility safety.

ULG TLC:
VEHICLE ARCHITECTURE DATA EXCHANGE (VADE)

TLC SCOPE

To exchange vehicle architecture designs and surface data to support internal vehicle development. CAD nominal math data exchange is especially important. We also exchange scans from competitors which saves resources in scanning and procuring vehicles. It's worth noting that we help each other understand complex industry regulations that deal with government reporting.

TEAM LEADS

Hillary Gregory, Ford · Dave Bratkowski, GM · Ted Sawdon, Stellantis

KEY 2025 ACCOMPLISHMENTS

- Continued to share vehicle architecture data throughout the year. A total 18 requests were exchanged (6 more than last year).
- Also continued to exchange technical expertise in several areas which include GCIE and SAE measurement standards. An example was the topic of approach, departure and breakover angles.
- OEM Expertise sharing – SAE J3103 development. This speaks to the positioning of a benchmarking occupant standard.

VALUE STATEMENT

- Total Savings (Per Rented Vehicle) VS. Internal Scanning $20,200.00 (Most costly case)
- The amount of money each OEM saves by getting data months ahead of time is almost incalculable and very hard to monetize. This is especially true when CAD nominal occupants and groundlines are exchanged.

ULG TLC: SEMICONDUCTORS WORKING GROUP

TLC SCOPE

Reduce complexity of non-competitive mature node semiconductors across OEMs

TEAM LEADS

Terrence Wong, Ford · Maggie Frachioni, GM · TBD, Stellantis

KEY 2025 ACCOMPLISHMENTS

- Team formed in April 2025 including multiple members from General Motors and Ford Motor Company
- Published a Semiconductor White Paper aligning technical requirements for CAN and LIN semiconductors

VALUE STATEMENT

- Define common packaging requirements, align circuit designation, and device specifications for multiple semiconductor categories
- Increase resiliency by developing drop-in compatibility and simplified supply chains
- Increase leverage to move semiconductor manufacturing to protect from geopolitical, environmental, and economic risks

ULG TLC:
VEHICLE & MOBILITY SYSTEMS ANALYSIS TECH TEAM (VMSATT)

TLC SCOPE

Identify, analyze, and accelerate the development of pre-competitive, innovative energy-efficient mobility system technologies (e.g., V2X, CAV) that affect the future of light-, medium-, and heavy-duty vehicles and associated infrastructure (communications, fueling, and built environment).

TEAM LEADS

Robert De Kleine, Ford · Norman K. Bucknor, GM · Shashank Rai, Stellantis

KEY 2025 ACCOMPLISHMENTS

- Initiated work on V2X white paper to identify V2X future opportunities in collaboration with 21CTP Freight Operational Efficiency Tech Team.
- Convened several joint tech team meetings for various ADAS-related reviews (SAE-M-City V2X consumer study, SAE CAV test standards development, GM Super Cruise)
- Finalized List of Mobility System Metrics for US DRIVE/21CTP studies.

VALUE STATEMENT

- Provides exposure to, and monitoring of, the latest mobility and V2X/CAV research and resources (e.g. software tools, test data) from government, industry and academia.
- Allows execution of studies that OEMs are not set up to do.
- Establish OEM connections to relevant government lab teams.

Finalized May 6, 2026

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