Coordinating Research Council, Inc.

Organizational Overview

October 2022



What type of organization is the CRC?





Can Lobby

Examples of associations of people with a strictly scientific role



Examples of associations of companies with a strictly scientific role



501(c)(3) Organizations

Can Not Lobby

CRC is an association of companies organized and operated exclusively for scientific purposes for the benefit of the public.

A Century of CRC History

1920s 1930s 1940s 1950s 1960s 1970s 1980s 1990s 2000s 2010s 2020s+ **Beginning:** Cooperative Military Research: **Air Quality:** Wider View: **Fuels Research Global View: Aviation & Vehicle Light-Duty** +Autos, (CFR) **Sustainability Vehicle Focus** +Committees **Performance** Committee of SAE



Research emphasis of the Council adapts to the needs of Members. More diverse than this simple summary, research continues today in all of the topics listed.



CRC Objectives



Be a focal point for cooperative, pre-competitive research.



Provide a forum for all stakeholders to participate in the research.



Make technical information available to industries, governments and the public.



What are the benefits of Membership in CRC?





Members Contribute:

Researchers – the people that make cooperative research successful

Funding - annual base, and additional cost-share when appropriate

In-Kind Support - Laboratory testing, equipment, and materials







Members Receive:

Interaction with expansive research network

Extraordinary leveraging of research funds - full access to projects funded by far more funds than the individual member cost

Detailed and immediate insights into latest results



Benefits for All:

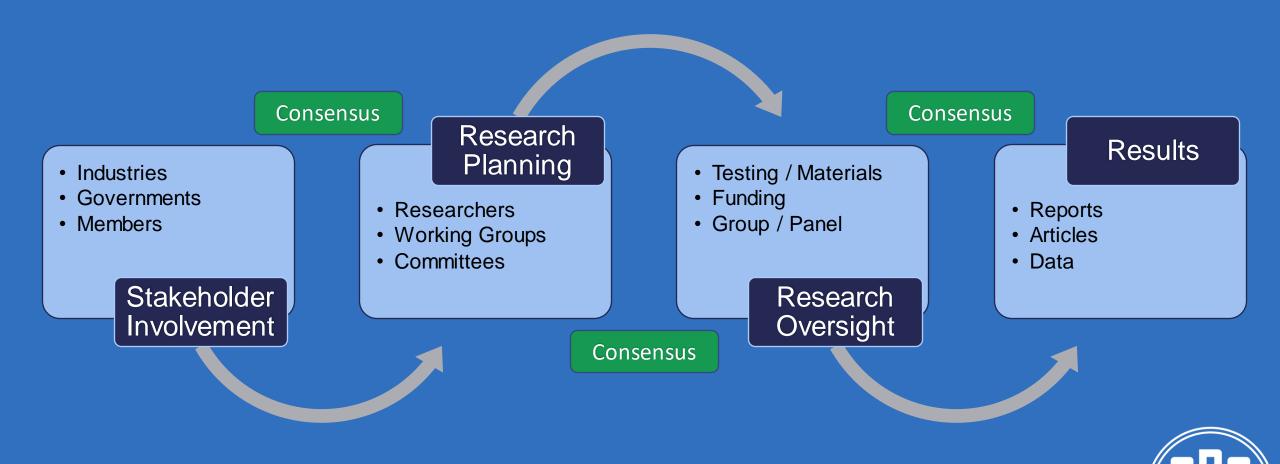
Well-informed public policy based on sound science where all stakeholders have contributed

Improved standards allowing all segments of the mobility industry to work together

Open exchange of information to move technology forward



The Process for Cooperative Research



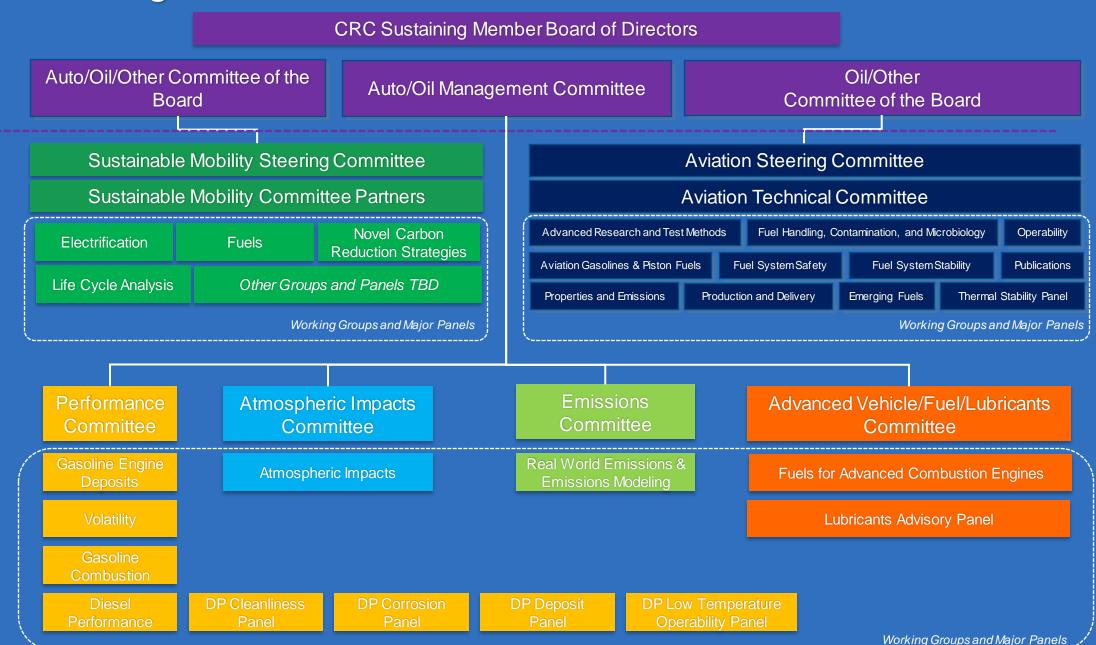
Corporate Governance:

- Contract review
- Base Funding
- Staffing

Technical Activity:

- Research Plans
- Project Oversight
- Report Review
- Workshops

CRC Organizational & Technical Committee Structure



Advanced Vehicle/Fuel/Lubricants Committee



Co- Chair: Ivan Tibavinsky, Mercedes Benz

- Advanced automotive hardware and new fuel formulation effects on automotive emissions (3-10 years out).
- Durability and operability of new fuel formulations in advanced hardware (3-10 years out).





Co- Chair: Steve McConnell, Marathon

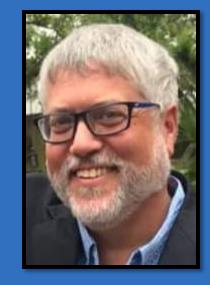


Atmospheric Impacts Committee



Co- Chair: Sandy Winkler, Ford

- Focus resources to improve science and regulations related to air quality
- Improve the ability to predict effects of emissions on air quality by:
 - Improving inventories
 - Understanding air chemistry
 - Strengthening air quality models
- Predict the importance of emerging data



Co- Chair: Chris Rabideau, Chevron

Atmospheric Impacts
Committee

Atmospheric Impacts
Working Group



Aviation Committee



Chair:
Dan Kadlecek
ExxonMobil

- Provide an organization and forum for aviation fuel producers, users and equipment manufacturers, government, and academia to collectively address and fund fuel research.
- Develop the technical information and data required to allow the aviation industry to resolve fuel-related problems and issues.
- Provide a forum for the dissemination of technical information, to foster relationships between the development of industry experts, and to discuss research, problems, issues, and concerns.





Vice-Chair:
Amy Carico
Airlines for America



Emissions Committee



Co- Chair: Mike Viola, GM

- Define effects that changes in automotive hardware, fuel compositions, and their interactions have on automotive emissions related to air quality and air-borne toxics
- Address current and future regulatory needs
- Determine the contribution of vehicle/fuel source emissions to the environment and how current computer models reflect these contributions (RWG)



Real World Emissions & Emissions
Modeling Working Group



Co- Chair: Paul Loeper, Chevron



Real World Vehicle Emissions & Emissions Modeling Working Group



Co- Chair: Jim Baustian, BP

- Determine the contribution of vehicle/fuel source emissions to the environment and how current computer models reflect these contributions
- Open Working Group allowing interactions and collaborative projects with agencies & other industry partners



Co- Chair: Mike Viola, GM

Emissions Committee

Real World Emissions & Emissions
Modeling Working Group

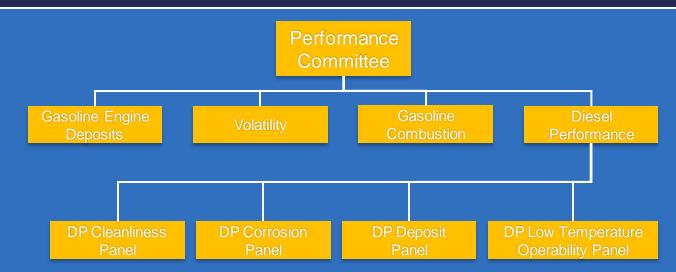


Performance Committee



Co- Chair: Asim Iqbal, Stellantis

- Relate physical and chemical properties of gasoline to vehicle performance
 - Driveability/ Volatility Relationship
 - Octane Response
- Develop engine and vehicle test procedures to use in commerce and regulations and use these procedures to monitor vehicle/ fuel performance.
 - Deposits
 - Driveability Index





Co- Chair: Russ Lewis, Marathon





Co- Chair: Heather Hamje, ExxonMobil

Sustainable Mobility Committee

A multi-stakeholder forum for collaborative scientific research studies focused on pathways toward carbon neutral future through significant greenhouse gas reductions from mobility while seeking to understand tangential impacts.



Co- Chair: Elana Chapman, GM

Sustainable Mobility Steering Committee

Working Groups

Electrification SMC-E

Investigate challenges in the transition to electric propulsion

Fuels SMC-F

Support research in carbon reduction by liquid and gaseous fuels

Novel Carbon
Reduction Strategies
SMC-CR

Explore systematic approaches to mobility carbon reduction

Life Cycle Analysis
SMC-LCA

Provide a forum for review of LCA Models and Methods

CRC Workshops & Open Technical Meetings

Sustainable Mobility

1st Event: December 2022 Golden, CO

Life Cycle Analysis of Transportation Fuels

7th Event: October 2023

Real World Emissions

33rd Event: March 2023 Long Beach, CA

Mobile Source Air Toxics

10th Event: February 2022 *Virtual*

Aviation Committee Annual Meeting

1st Week of May 2023: Lake Washington, WA 2024: Alexandria, VA

Fuels and Engines: The Road Ahead

3rd Event: October 2020 *Virtual*

Special Events

Southern California Ozone Research Symposium (2018) Air Quality Modeling Research Needs (2016, 2022)

Special Events

Stochastic Pre-Ignition (2020)
Driveability (2019)

CRC Member Groups

Auto/Oil Program Committees





Aviation Committee





MARATHON























Honeywell







(BOEING















Sustainable Mobility Committee

Steering Committee Members











































Expansion in progress

CRC Staff













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