ESG Expectations and Automakers

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Upcoming events

Webinars (*Affiliate Webinar)

• Paintline Operating Efficiencies with PPG OPTIMA SOLUTIONS™ | September 22, 2021*

Affiliate Meetings

• CAR Fall Affiliates Dinner and Briefing | October 6, 2021 | American Center for Mobility & Live - Stream

• Joint SEMI-CAR event | October 27, 2021 | Online

CALM Meetings

• CALM Q3 Meeting – October 2021

• CALM Q4 Meeting – November/December 2021
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ESG Expectations and Automakers

Carla Bailo, President & CEO, CAR
MISSION:

to produce independent research, convene stakeholders, and analyze critical issues facing the mobility industry and its impact on the economy and society.
THE CENTER FOR AUTOMOTIVE RESEARCH (CAR)

Automotive industry contract research and service organization (non-profit) with more than 30 years experience forecasting industry trends, advising on public policy, and sponsoring multi-stakeholder communication forums.

**RESEARCH**

Independent research and analysis on critical issues facing the industry.

**EVENTS**

Industry-driven events and conferences that deliver content, context, and connections.

**CONNECT**

Consortia that bring together industry stakeholders to participate in working groups, networking opportunities, and access to CAR staff.
Environment, Social, and Governance (ESG)

ESG is having a moment. Why now?

- A perfect storm of drivers
  - The public is increasingly concerned about the environmental impact of their purchases and lifestyle decisions
  - Transportation has surpassed power generation as the highest polluting industry in the U.S.
    - As the power generation industry has replaced coal with renewables, the pressure on other industries to make comparable adjustments is growing
    - In personal transportation, public transportation remains a more environmentally option in terms of pollution per person per distance traveled, putting additional pressure on the automotive industry to make personal transportation cleaner
  - It’s not just the environment
    - Factors ranging from the Black Lives Matter movement to the Me Too movement and others have resulted in consumers demanding greater diversity, accountability, and transparency from businesses
    - Future sustainability relies upon a workforce that believes in your contribution to society in terms of your product, carbon footprint, and business culture.
Much at stake: Automakers and suppliers among the highest ESG risk sectors
ESG is an increasing priority in the automotive industry

- **Environment**
  - Unprecedented shift to vehicle electrification
  - Green power sources for manufacturing and other operations
  - Zero waste plants and recycling efforts
  - Focus on full automotive value chain
    - From raw material sourcing to battery and vehicle end-of-life recycling – “wheels to wells”

- **Social**
  - Requirements for automotive suppliers to adhere to ESG
    - Suppliers account for ~2/3 of the value of a vehicle, so their involvement is crucial
  - Green logistics for input sourcing and vehicle distribution
  - Host community involvement and volunteering support
  - Diversity initiatives both at the company and supplier level
  - Strongly related to being able to hire competent staff

- **Governance**
  - Adherence to accounting and financial reporting standards that are more stringent than the minimum required by law
ESG is driving not just automotive discourse, but also industry investment decisions

- CAR’s Management Briefing Seminars (MBS)
  - Overlapped with Biden Administrations 5 August 2021 executive order on zero emissions vehicle sales
  - Numerous sessions featured ESG subjects
    - Environmental initiatives were the most common focus
- CAR’s Affiliate Program
  - Great interest in ESG and a variety of sustainability-related subjects
  - Development of the Sustainability Database
- CAR’s Automotive Communities Partnership (ACP)
  - Investment decisions increasingly require green power sources for facilities
  - Green supply chain management taken into consideration when locating plants and their supply chains
ESG – Growing impact on automotive suppliers

• A total value chain perspective
  • Automakers include suppliers in reporting the environmental impacts of their enterprises
  • Suppliers can expect more requirements regarding
    • Green power for facilities
    • Green supply chain and logistics practices
    • Closer scrutiny of facility location distances
    • DEI
  • Wall Street has weighed in
    • ESG and other accountability measures are considered characteristics of safer investments
    • Stock price is being rewarded for obtaining good ESG scores (ISS and others)
  • ESG and good corporate citizenship are no longer just about good PR – they are key characteristics of a company and a key factor in the company’s success and sustainability/resilience
Environment
Why the growing focus on ESG? EVs are changing the narrative

**REGULATORY**
Global regulations are quickly moving to lower-carbon transportation

**TECHNOLOGY**
Technology is more capable with longer range & lower costs

**PRODUCT**
EVs will soon be available in every segment—from compacts to pickups

**FINANCE**
Investors are rewarding market disruptors & sustainable companies

**MARKET**
EV market share is increasing—unrelated to real gas prices
Biden Administration policies will likely be consistent with, and a driver of, ESG in mobility
When I think of climate change, I think of — and the answers to it — I think of jobs. A key plank of our Build Back Better Recovery Plan is building a modern, resilient climate infrastructure and clean energy future that will create millions of good-paying union jobs — not 7, 8, 10, 12 dollars an hour, but prevailing wage and benefits.

—President Biden, Remarks on 27 January 2021
Biden Administration Executive Order
The path to 50%

• Announced 5 August 2021 at White House ceremony attended by representatives from General Motors, Ford, Stellantis, and UAW
• Goal of 50% sales of emissions-free vehicles by 2030
• Emissions-free vehicles defined as
  • Battery Electric Vehicles (BEV)
  • Plug-In Hybrid Electric Vehicles (PHEV)
  • Fuel Cell Electric Vehicles (FCEV)
• Automakers’ pledges to meet the targets are voluntary
  • Critics point out they will not be held to the commitments
  • But prior company announcements and industry forecasts show the automakers already on a likely path to achieve compliance by 2030
A long way to go to get to net zero by 2050

2010-2021 YTD actual; 2021-2030 projected

Source: Ward’s Automotive Reports (from 2010 & on), HybridCars.com & CAR Research
The transition to electric power is already underway
U.S. Light Vehicle Sales 2021 YTD Through July

Market Share: Segment Breakdown
U.S. Light Vehicle Sales 2021 YTD Through July

- CUV: 41.2%
- Pickup: 17.4%
- Small Car: 9.3%
- SUV: 8.7%
- Electrified: 8.5%
- Middle Car: 7.1%
- Van: 3.7%
- Luxury Car: 3.6%
- Large Car: 0.6%

Segment Breakdown: U.S. Light Vehicles Sales
Percent Change
2021 YTD vs. 2020 YTD Through July

- Total: 25.1%
- Fuel Cell: 332.2%
- Hybrid: 231.1%
- PHEV: 127.3%
- BEV: 103.8%
- CUV: 29.1%
- Small Car: 24.6%
- SUV: 24.7%
- Luxury Car: 23.0%
- Large Car: 12.6%
- Pickup: 9.6%
- Middle Car: 3.0%
- Van: 0.1%

Note: Electrified Segment consists of BEVs, HEVs and PHEVs; all other segments are sales exclusive of Hybrid models.

Source: Ward’s Automotive Reports & CAR Research
Major impact of environment drivers on investment decisions:
Since 2015, 34% of automaker investments announced in North America have been xEV/battery related.
2021 Vehicle Portfolio
Announcements/Expectations

• Audi – Aiming to end production of ICE vehicles by 2033 (outside of China)
• Bentley – 100% electric vehicle offerings by 2030
• BMW – Expects 15-25% hybrid or EV global sales by 2025
• Ford (Europe) – 100% electric vehicle offerings by 2030
• GM – 100% electric vehicle offerings by 2035
• Honda – 100% electric vehicle offerings by 2040
• Jaguar – 100% electric vehicle offerings by 2025
• Kia – Planning for 40% EV production by 2030
• Mazda – Plans to offer hybrid or EV variant for every nameplate by 2030
• Mitsubishi – Expects 50% hybrid or EV global sales by 2030
• Nissan (Key Markets) – 100% electric vehicle offerings by early 2030s
• Stellantis – Expects 70% (Europe) and 40% (USA) hybrid or EV by 2030
• Subaru – Expects 40% hybrid or EV global sales by 2030
• Volkswagen – 70% Europe, 50% US & China; electric vehicle offerings by 2030
• Volvo – 100% electric vehicle offerings by 2030
• Toyota – Will expand to 70 electrified models, including 15 new battery-electric models, by 2025

Source: CAR Sustainability Database
### Headline News

**Volkswagen has opened its first pilot plant for recycling electric car batteries.**
- **Salzgitter plant in Germany**
- Goal is industrial recovery and recycling of valuable battery contents.
- “Volkswagen Group Components has achieved a further step in its sustainable end-to-end responsibility for the battery as a key component of electric mobility.”

**BMW’s Chinese factories to become carbon neutral by the end of 2021.**
- BMW announced that its factories in China plan to reach carbon emissions neutrality by the end of this year.
- Further plans to reduce carbon emissions in the entire Chinese region and production chain by 80% in 2030.

**Volvo committed 100% fully-electric offerings by 2030.**
- The company is planning to (globally) phase out sale and production of ICE and hybrid vehicles by 2030.
- 2025 goal of 50% of global sales consisting of fully electric and hybrid vehicles.

**GM Committed to 100% fully-electric offerings by 2035.**
- The company is planning to phase out the sale and production of ICE and hybrid vehicles by 2035.
- This comes alongside GM’s commitment to be (globally) carbon-neutral by 2035.

*Source: CAR Sustainability Database*
Much more to come: Automaker Financial Commitments

Automakers are making substantial financial commitments towards vehicle electrification and related technologies

- **Ford**
  - Announced Spending: **$30B** (over 5 years)
  - $12.8B spent in 2020

- **GM**
  - Announced Spending: **$35B** (over 6 years)
  - $11.5B spent in 2020

- **Mercedes-Benz**
  - Announced Spending: **$46B** (over 10 years)
  - $13.8B spent in 2020

- **Stellantis**
  - Announced Spending: **$34B** (over 5 years)
  - $13B spent in 2020

- **VW**
  - Announced Spending: **$83B** (over 5 years)
  - $28.7B spent in 2020

Source: CAR Sustainability Database
Examples of Social Initiatives and Issues
General Motors
2020 Diversity Recognition

2020 Top 50 Best Companies for Latinas to Work for in the U.S., LATINA Style Inc.

Top Company National Organization on Disability 3 consecutive years

Best Performing S&P 500 company in the 2020 Equileap Gender Equality in the U.S. report

Top 50 DiversityInc 5 consecutive years

CEO Mary Barra Inducted into International Women’s Forum Hall of Fame

Bloomberg Gender-Equality Index inclusion
It is important that we embed our Diversity, Equity and Inclusion strategies into every part of our company to leverage our innovative workforce, compete in the marketplace and serve the community. Diversity, Equity and Inclusion is a collaborative effort across our entire enterprise. Here are just a few examples:
ESG social conundrum example: Selling vehicles in China means assisting CCP with surveillance of its citizens

- All “new energy vehicles” in China now provide location data in realtime to the Chinese Communist Party (CCP) government.
- China has delegated 25 MHz of RF spectrum at 5.9 GHz, which will likely be used to expand this vehicle surveillance network to all new vehicles.

[Link](https://qz.com/1522309/how-chinas-electric-car-surveillance-system-works/)
Electric vehicle ESG issue: responsible battery sourcing: Lithium-Ion battery cell manufacturing capacity by region 2021

Automotive ESG challenges will persist: Projected Growth in Lithium-Ion battery cell manufacturing capacity by region

**2021**

Examples of Governance Initiatives
In December 2020, BMW declared that all recommendations (and not just minimum requirements) of the German Corporate Governance Code will be complied with going forward.¹ The German system is unique in the amount of control ceded to labor and shareholders.

¹ https://report.bmwgroup.com/home/intro/
Ford Tracking Political Engagements

Ford strives to be open and transparent in how it engages and influences governmental agencies and public policy. Ford publishes an annual political engagement report to help achieve this goal.

The Ford PAC seeks to support candidates and committees that align with six principles, namely those who:

1. Champion manufacturing, mobility, and innovation policies of interest to Ford.
2. Represent districts or states with a large Ford presence.
3. Participate on a key committee relevant to Ford and/or its partners.
4. Serve in a leadership role or show potential as a future leader.
5. Maintain a track record of supporting Ford employees and operations.
6. Demonstrate public service consistent with building trust and acting with competence, integrity and serving others.

Source: Ford Motor Company
Thank You