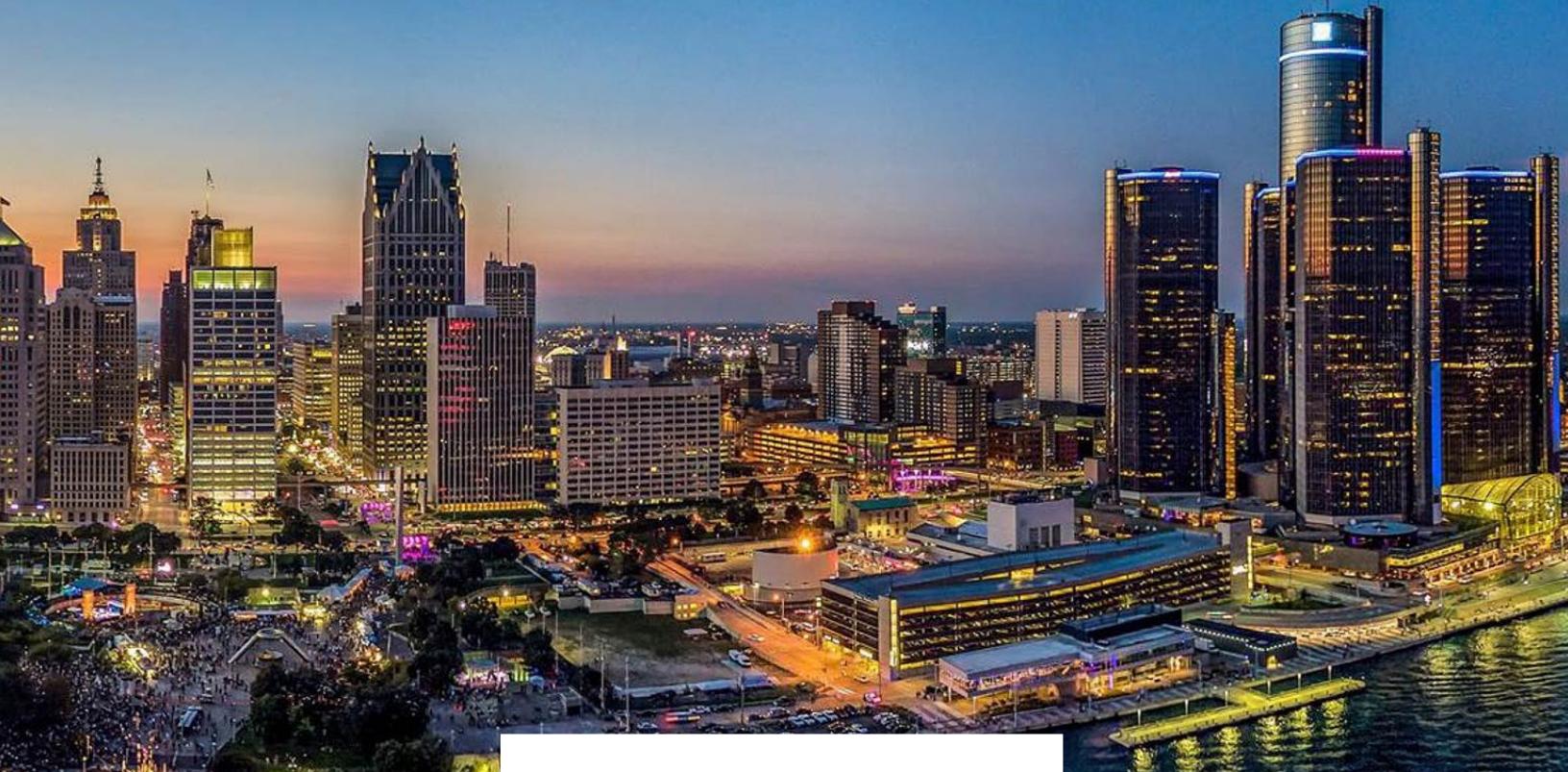
The background of the entire page is a high-angle, nighttime aerial photograph of a modern city. The image captures a complex network of elevated highways and overpasses, with numerous cars and streetlights creating a pattern of bright, glowing lines against the dark night sky. In the center, a large, brightly lit triangular structure, possibly a fountain or a public art installation, sits at the intersection of several roads. The surrounding area is filled with the illuminated windows of skyscrapers and other urban buildings.

2019 SUSTAINABILITY REPORT

# DRIVING SUSTAINABLE VALUE



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## LEADERSHIP MESSAGE

### ***Moving Through the World in a New Way***

The past several months have been difficult, both in our world and in our industry. While we are pleased to share this report outlining our global citizenship accomplishments over the past year, we remain conscious of the increasing role for companies to do even more to leverage their resources and their voices to provide leadership while simultaneously staying focused on the core business to deliver value for the short, mid, and long term.

I begin with two events that are reshaping our society — the attention to racial injustice in the United States, and the global COVID-19 pandemic. General Motors is addressing both of these, while also maintaining a laser focus on delivering a world with zero crashes, zero emissions, and zero congestion.

### ***Aspiring to Meaningful Inclusivity***

In recent weeks, many of our Black colleagues have shared heartbreakingly stories about their own personal and painful experiences with racism, both inside and outside of the workplace. These revelations are disturbing, but we need to hear them. General Motors has a strong track record of diversity by many objective standards, but it is clear we need to do much more. And we will.

We aspire to be the most inclusive company in the world. We are redefining our efforts to build a unified workplace culture that is safe, open and inclusive, and encourages employees to bring their true selves to work.

As part of our work, we have chartered an Inclusion Advisory Board that I will chair. This Board includes external advisors and will help inform action plans around specific guiding principles for our words, our deeds, and our culture.

In addition, in June, we designated \$10 million to support organizations that promote inclusion and racial justice. Initially, \$1 million will go to the NAACP Legal Defense and Educational Fund to help it advocate for racial justice.

## LEADERSHIP MESSAGE CONTINUED



Our efforts at General Motors complement additional work that is happening at scale through the Business Roundtable (BRT). I have joined other CEOs from the BRT to form a Special Committee for Racial Equality and Justice. The committee will focus on these pillars: education and workforce, which I will lead; health care; access to financial capital in minority communities; and equitable justice.

### **Responding to a World in Need**

Turning to COVID-19, from the onset of this crisis, we have been working hard to protect our employees and our business.

General Motors' strength has always been the grit, talent and ingenuity of its people. While we temporarily suspended operations in various parts of the world, we realized we had the capability to quickly support production of critical care ventilators and personal protective equipment to save lives and help frontline workers care for COVID-19 patients.

In the U.S., we partnered with Ventec to build 30,000 ventilators in our Kokomo,

Indiana facility, with the capacity and ambition to build more if needed. In Brazil, our teams repaired ventilators for hospital use. Our global facilities have produced millions of masks, as well as face shields and gowns.

We have also made targeted financial donations around the world to address acute community needs.

### **Maintaining Our Focus on the Future**

Our tenacity and discipline have ensured that while we address the issues directly in front of us, we have maintained our focus on delivering a world with zero crashes, zero emissions, and zero congestion.

Transitioning to all-electric vehicles is central to a zero-emissions future. Our new, flexible platform and Ultium battery system will help us build EVs across all our brands.

By mid-decade, we expect to sell a million EVs a year across our global markets.

With partners that include utility companies and charging networks, we are also working to make sure charging is easy, fast, and

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*“We aspire to be the most inclusive company in the world. We are redefining our efforts to build a unified workplace culture that is safe, open and inclusive...”*

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## LEADERSHIP MESSAGE CONTINUED



affordable at home, work and on-the-go. And we will continue to increase the number of chargers at our facilities.

Our work to develop safe, autonomous vehicles on our way to a driverless future — one with safer roads and zero crashes — also continues uninterrupted. In January, Cruise introduced Origin, a purpose-built, electric, shared, self-driving vehicle that GM and Cruise developed jointly with Honda. It is designed to seat six and provide a better, safer and more consistent experience than a conventional rideshare vehicle.

### **Accelerating Our Response to Climate Change**

In response to the threat of climate change and urgency to do more and act faster, we have established new targets to accelerate our sustainability goals, detailed throughout this report.

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***“As we move forward, I believe society will have an even greater appreciation for the well-being of each other and our planet.”***

---

We will source 100 percent of our facilities' electricity from renewables by 2040 globally, and by 2030 in the U.S. By 2025, we will be 60 percent of the way toward our global goal. And in partnership with our suppliers, we are establishing a sustainable material target of at least 50 percent by 2030 for all our vehicles.

### ***Moving Forward With Purpose***

This moment in time is historic for all of us. General Motors has helped change the world before, and we are determined to do it again. We have the skilled and dedicated workforce, and the technology, ingenuity, and resolve to deliver.

Our company and our world have changed. As we move forward, I believe society will have an even greater appreciation for the well-being of each other, and our planet. General Motors is as determined as ever to create solutions that will lead to a better future for all of humankind, with an all-electric future guided by a focused vision of zero crashes, zero emissions, and zero congestion.



Mary T. Barra  
Chairman and Chief Executive Officer

## ESG HIGHLIGHTS | PROGRESS TOWARD OUR VISION

**\$2.2 billion**

investment in our Detroit-Hamtramck Assembly Plant, which will be the first GM plant fully dedicated to the manufacturing of EVs and will support 2,200 jobs.

**\$20 billion**

in capital and engineering resources will be allocated to EV and AV programs between 2020 and 2025.

**5 years**

consecutively that GM has been the only automaker placed on the Dow Jones Sustainability Index for North America and the third time named to the DJSI World Index.

**100%**

of GM's owned facilities will source electricity from renewable energy by 2040 globally, and by 2030 in the U.S.

**50%**

of GM's automotive parts are expected to be made with sustainable materials — in partnership with our suppliers — by 2030, moving us closer to a circular economy.

**~10%**

average annual improvement in Cruise AV core safety metric.

**46%**

reduction in rear-end crashes in GM vehicles equipped with Automatic Emergency Braking (or Forward Automatic Braking) with Forward Collision Alert, according to a study conducted in partnership with the University of Michigan Transportation Research Institute.



**70%**

reduction of cobalt used in GM's new proprietary battery technology, Ultium.

**9 years**

that GM has been named a U.S. EPA Energy Star® Partner of the Year—Sustained Excellence in Energy Management.



GM ranks first in the automotive industry three years running and placed 18th overall on this ranking of companies whose business behaviors align with priorities of the American public in environmental, social and ethical factors.

**CDP “A” List**

GM was cited as a global leader in sustainable water management, achieving a place on CDP's prestigious Water Security “A” List. The company also received an A overall climate disclosure score.

**Top 100**

for the third consecutive year in 3BL Media's 100 Best Corporate Citizens, which recognizes outstanding environmental, social and governance transparency and performance among the 1,000 largest U.S. public companies.



**S&P 500**

GM was included on the S&P 500 ESG Index, which launched in 2019 and recognizes strong performance in environmental, social and governance factors.



For the second year, GM earned placement on Bloomberg's Gender Equality Index.



For the first time, GM has been named one of the 2020 World's Most Ethical Companies for strong ethics and compliance programs, corporate citizenship and responsibility initiatives, culture of ethics, defined governance and leadership, and ethical reputation.

Buick VELITE 6 electric vehicle (right) and Chevrolet Bolt electric vehicle (left)



# OUR VISION

We see a world  
with zero crashes,  
zero emissions and  
zero congestion

## WE ARE GENERAL MOTORS

We are committed to **SAFETY** in everything we do.

We earn **CUSTOMERS** for life.

We build **BRANDS** that inspire passion and loyalty.

We translate breakthrough **TECHNOLOGIES** into  
vehicles and experiences that people love.

We create **SUSTAINABLE** solutions that improve the  
**COMMUNITIES** in which we live and work.

## OUR VALUES

### CUSTOMERS

We put the customer at the center of everything we do. We listen intently to our customer's needs. Each interaction matters. Safety and quality are foundational commitments, never compromised.

### EXCELLENCE

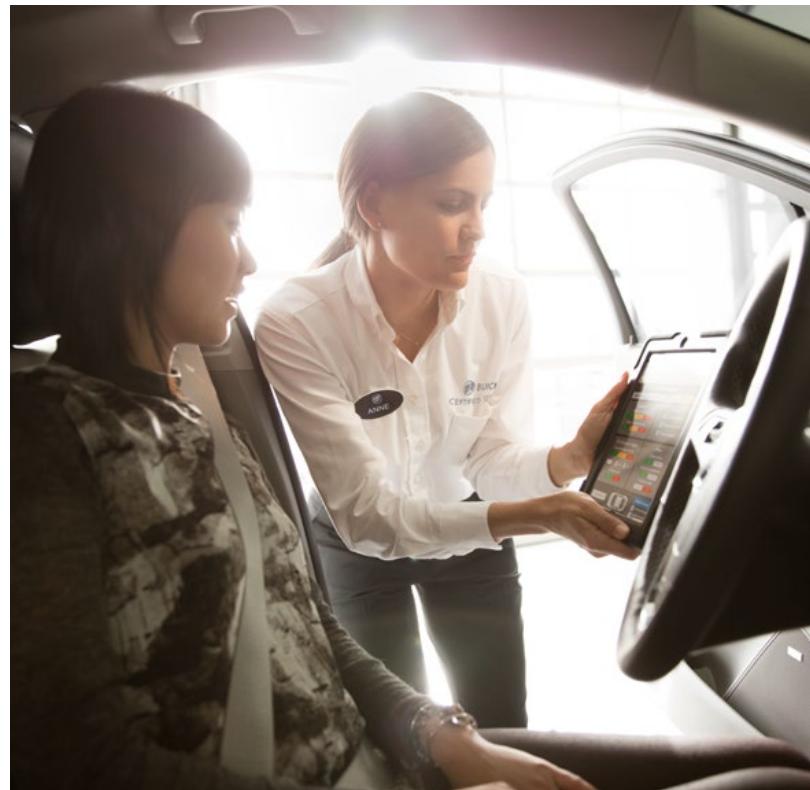
We act with integrity. We are driven by ingenuity and innovation. We have the courage to do and say what's difficult. Each of us takes accountability for results, drives for continued efficiencies and has the tenacity to win.

### RELATIONSHIPS

Our success depends on our relationships inside and outside the company. We encourage diverse thinking and collaboration from the world to create great customer experiences.

### SEEK TRUTH

We pursue facts, responsibly challenge assumptions and clearly define objectives. When we disagree, we provide additional context and consider multiple perspectives.



zero emissions. zero crashes. zero congestion.

## HOW WE BEHAVE



### THINK CUSTOMER

I consider the customer's needs in everything I do.



### INNOVATE NOW

I see things not as they are but as they could be.



### LOOK AHEAD

I make decisions now with the long-term view in mind, and I anticipate what lies ahead.



### ONE TEAM

I collaborate cross-functionally to achieve enterprisewide results.



### BE BOLD

I respectfully speak up, exchange feedback and boldly share ideas without fear.



### IT'S ON ME

I take accountability for safety and my own actions, behaviors and results.



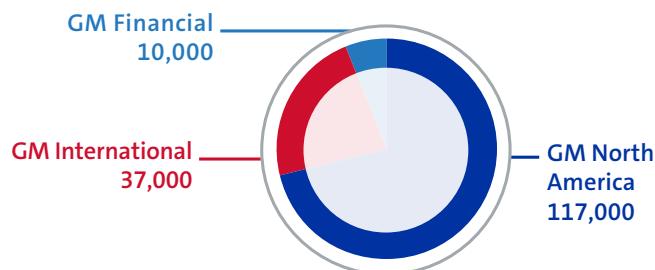
### WIN WITH INTEGRITY

I have a relentless desire to win and do it with integrity.

# CORPORATE PROFILE

## PEOPLE

### 2019 Employees by Region



**164,000**  
Total employees worldwide

## BRANDS

Chevrolet	Cadillac	OnStar
Buick	Baojun	Cruise
GMC	Wuling	

## REACH

**5**  
Continents      **12,650**  
Dealers      **Selling in 84**  
Countries

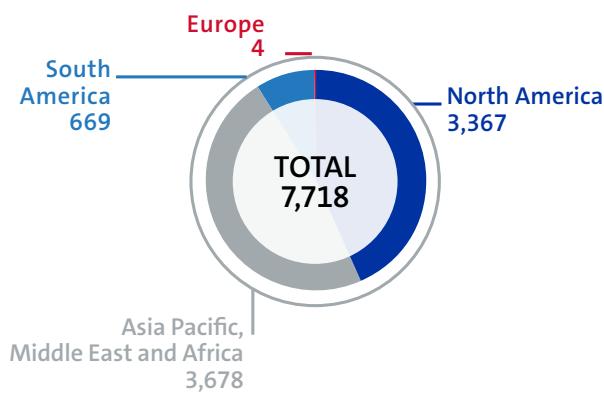
## MARKET POSITION

<b>#1</b> North America	<b>#1</b> South America	<b>#2</b> China	<b>#4</b> Asia, Middle East, Africa
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## SALES

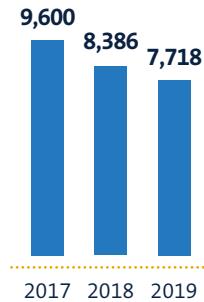
### 2019 Sales by Region

Vehicles in thousands



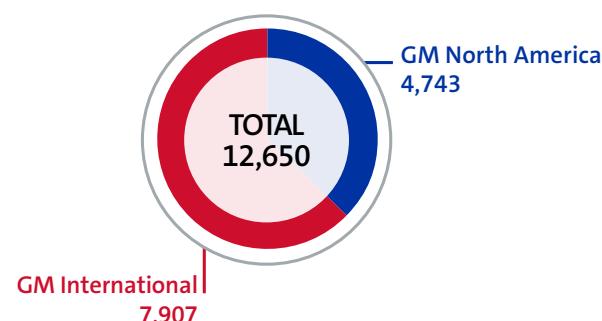
### Total Sales

Millions of units, 2017–2019



## DISTRIBUTION

### Authorized Dealerships by Region



### U.S. Sales as a Percentage of Industry

**29.6%**  
Trucks

**8.0%**  
Cars

**14.2%**  
Crossovers

**16.1%**  
Fleet sales as a percentage of global sales



# OUR STRATEGY

We achieve sustainable progress by setting our sights high.

General Motors' strategy is to deliver safer, simpler and more sustainable transportation solutions for our customers. In doing so, we'll realize our vision for personal mobility — we'll help the world see a future with zero crashes, zero emissions and zero congestion.

Our strategy reflects today's transportation revolution that is transforming how people move, an effect similar to the debut of the automobile more than a century ago. The technologies leading this transformation of personal mobility will be autonomous, electric, connected and shared. We are focused on initiatives that capitalize on these new technologies and business models to create products, offer services and advocate for policy that looks at transportation as a system and mobility as a service. This will result in a world where sustainable transportation is a reality for daily life and enables communities to be more prosperous and livable.

## Strategy Execution

Our Scope 3 product footprint, which consists of our supply chain impacts, use of vehicles produced and management of vehicles' end-of-life, amounts to 94 percent of GM's total GHG emissions for 2019. Our vehicle strategy must then, in effect, become our sustainability strategy. In 2019, we moved toward achieving this more holistic alignment by creating a Sustainability Office and naming our first Chief Sustainability Officer. This Office is charged with working cross-functionally to ensure responsible consumption of materials and production of vehicles; to lead the strategic design and implementation of our electric vehicle (EV) infrastructure; and to engage both internal and external stakeholders to realize a zero emissions future.

## What We Aspire To:

### Carbon

A World with Zero Emissions

### Safety

Zero Crashes and Zero Workplace Injuries

### Customers

Gain Customers for Life

### Mobility

A World with Zero Congestion

### Materials & Resources

Maximize Sustainable Content

### Supply Chain

Positive Environmental & Social Impact

### Talent

Realize Everyone's Potential

### Diversity & Inclusion

All Voices Are Heard

### Community

Safe, Smart & Sustainable Communities

Our Sustainability Office is using a cross-functional “team of teams” approach to ensure that areas across the enterprise have accountability for their respective functions’ role in accelerating the company’s zero emissions future. Within each functional area, a single leadership point represents sustainability objectives and priorities, as well as owning sustainability goals and metrics. This also ensures that sustainable attributes are incorporated into every vehicle across GM’s product portfolio, helping to bridge between an evolving electric vehicle (EV) portfolio and an internal combustion engine (ICE) portfolio.

## A Team of Teams Approach



### Focus Areas and Goals

Sustainability Office leaders are charged with innovating and advocating for the acceleration of our zero crashes, zero emissions and zero congestion vision. This work is initially centered around five primary environmental areas of focus: sustainable materials, zero waste, carbon, energy and water. To manage and measure progress over the next decade, the team is working to develop a comprehensive set of enterprise goals that is expected to be formalized over the next year. Already announced are goals that call for:

- Ensuring at least 50 percent sustainable material content in GM vehicles by 2030.
- Achieving a 31 percent reduction in absolute Scope 1 & 2 CO<sub>2</sub> emissions based on science and aligned with the Paris Climate Agreement.
- Ensure 100 percent of targeted GM suppliers are reporting data to CDP Supply Chain by 2022.

In addition, the team has accelerated GM’s previously announced goal to source 100 percent renewable electricity globally by 2050. The new goal calls for achieving 100 percent in the U.S. by 2030 and globally by 2040.

A key consideration in developing these enterprise-level goals has been to ensure cross-functional reach so that every GM employee in the world is positioned to contribute to the success of at least one of the goals. These goals are also intended to pivot our focus from operational impact to product impact. This approach is more holistic than in the past, when we have viewed operations and products separately. Now, all impacts of the business are managed and measured to support our zero emissions future.

### 2020 Operational Commitments

These goals and those to be announced build on the progress that has been made over the past decade through our 2020 Manufacturing Commitments. Introduced in 2010, these commitments focus on GM’s extensive manufacturing footprint around the world and have served to significantly reduce the impact of our operations. Progress has included meeting our initial goal to increase renewable energy to 125 MW four years early and continuing to grow renewable energy capacity to more than 424 MW as of the end of 2019. In the past nine years, we also have reduced energy intensity by 8 percent; water intensity by 14 percent and waste intensity by 28 percent — all against the 2010 baseline.

# TRANSFORMING OUR INDUSTRY, TOGETHER.

*A Conversation with Dane Parker,  
Chief Sustainability Officer*

You are stepping into the role of Chief Sustainability Officer — a new position for GM — at a critical time, as the company accelerates its sustainability efforts on multiple fronts. Why is now the right time for GM to make bold changes?

Both as a company and as a society, we're at an inflection point. Scientists tell us that we have about 10 years to sharply reduce global GHG emissions, and achieving that will take significant work that needs to begin now. The path we've been on has been necessary, but it's not sufficient. Now is the time for us to go faster. At GM, that means aligning efforts related to our products and our operations, and moving aggressively to help the world transition to an all-electric future.

## That's no simple task. How do you know that it's possible?

I compare our company's current situation to the one we were in almost exactly 100 years ago. In the 1920s, most people still got around by horse and carriage. Automobiles were starting to gain traction, but there were barriers to ownership. They couldn't pull heavy loads. They were far more expensive. And gas stations didn't exist yet, so people worried about range.

Then, a business transition occurred. Many carriage makers, including William Durant, the founder of General Motors, went from making buggies to making automobiles. Together, they made it easier to own an automobile than it was to own a horse and carriage, and the changeover to automobile ownership quickly followed.

We're facing many of the same dynamics today. What this history teaches us is that we won't see widespread adoption of EVs until they offer a better ownership experience than ICE vehicles — in terms of ease of charging, affordability and design. But we shouldn't be afraid of transformational change. GM has already been part of one revolution in the way we transport people, and now we have the opportunity to do it again with EVs.



**“ GM has already been part of one revolution in the way we transport people, and now we have the opportunity to do it again with EVs. ”**

**DANE PARKER, GM Chief Sustainability Officer**

## Beyond fast-tracking the transition from ICE vehicles to electric, how else can GM drive sustainability?

For several years, we've been reducing our operational footprint and have been recognized by external groups for doing so. The U.S. EPA has acknowledged us for our disciplined global process to achieve energy efficiency, as well as our renewable energy strategy and results. But there remains much more we can do. For example, we still generate around 200 kilograms of waste with every vehicle we produce, and we hope to bring this number down significantly.

In a circular economy, materials stay out of landfills through continuous reuse. If we can build vehicles that use more sustainable materials — and also encourage that those materials are reused or recycled at the end of a vehicle's life — we can make an important contribution to circularity.

## CSO Q&amp;A CONTINUED

Chevrolet Bolt EV



**GM has a vision of a world with zero crashes, zero emissions and zero congestion. It's clear how "zero emissions" relates to sustainability — but what about the other aspects of your vision?**

The three parts of our vision are deeply intertwined. Autonomous vehicles will help lead to fewer crashes and less congestion, which will lead to less time on the road and therefore lower emissions as the world transitions from ICE vehicles to EVs. And we're working on each piece of our vision in tandem. Not only are all of our AVs also EVs, we're incorporating advanced driver control features like Super Cruise, the industry's first true hands-free driver assistance feature for compatible highways, into the EVs in our portfolio. The next generation of the Chevrolet Bolt EV and the Chevrolet Bolt EUV, as examples, will be available with Super Cruise.

Beyond environmental benefits, AVs could reduce the more than 1 million deaths that result from vehicle crashes every year, and free up the hours that drivers would otherwise spend sitting in traffic. In this way, electric, autonomous vehicles will give people back a precious resource: time. More time for people to do the things they enjoy — another aspect of the sustainable future we envision.

**GM has set new environmental sustainability goals and is in the process of developing others. What is the thinking behind these goals, and how will they support GM's vision?**

If I had to use one word to describe the new goals we're setting, it would be "inclusive." First, we're making sure we have metrics that cover all parts of our carbon footprint. That's why we have targets not only to reduce emissions from the operation of our facilities, but also for the materials that are used in our vehicles. And we're targeting the vehicle use phase by setting goals for the number of EVs we hope to sell in our major markets as we advocate for policies that support consumer adoption of these vehicles.

Our goals will also encompass the entire GM value chain. Eventually, we hope to evaluate suppliers not just on quality and price, but how they're doing on sustainability and how they're reducing their own carbon footprints. Finally, we want our goals to include the entire GM team. I want every employee at GM to see and feel the direct impact they can have on achieving our zero emissions vision and our sustainability goals, as well as the positive difference their actions can make for our future. If we can help everyone understand their role in the larger vision, I know we will unlock our collective creativity, which in turn will have tremendous potential to bring about positive change.



## CORPORATE GOVERNANCE

GM is governed by a Board of Directors and committees of the Board that meet throughout the year. The Board of Directors' mission is to represent the owners' interest in the long-term health and the overall success of the business and its financial strength.

The Board is elected by shareholders to oversee and provide guidance on GM's business and affairs and is the ultimate decision-making body of the company, except for those matters specifically reserved to shareholders. It is highly engaged in developing GM's strategic plan and overseeing execution of that plan. The Board is committed to sound corporate governance structures and policies that enable GM to operate our business responsibly and with integrity, and to position GM to compete more effectively, sustain our success and build long-term shareholder value.

### Board Structure

The Board is comprised of 11 members, all but one of whom — Chairman and CEO Mary Barra — are independent, as defined by the Board's Corporate Governance Guidelines, which reflect the independence standards of the New York Stock Exchange and the U.S. Securities and Exchange Commission.

The Board has the flexibility to decide its optimal leadership structure, specifically when the positions of Chairman and CEO should be combined or separated and whether an executive or independent director should be Chairman. This allows the Board to choose the most appropriate leadership structure for the company to best serve the interests of our shareholders at any particular time. Currently, the Board is led by our Chairman and CEO, Mary Barra, whose role as Board Chairman is complemented by that of our Independent Lead Director, Tim Solso. The Board believes that Ms. Barra's in-depth knowledge of GM's business and understanding of day-to-day operations brings focused leadership to our Board and reinforces accountability for the company's performance. Our [Corporate Governance Guidelines](#), available on our website, specify the duties of the Independent Lead Director and independent directors.

The Board has the following standing Committees: Audit; Executive; Executive Compensation; Finance; Governance and Corporate Responsibility; and Risk and Cybersecurity. The Board has adopted governance structures and policies that it believes promote Board independence and the interests of shareholders. These structures and policies include, among others:

- Annual election of all directors
- Majority vote with director resignation policy for directors in uncontested elections
- Annual review of the Board's leadership structure by the independent directors
- Independent Lead Director empowered with robust and clearly delineated duties
- Independence of 10 out of 11 directors

Please refer to our 2020 Proxy Statement for more background on the Board's strong governance structures.

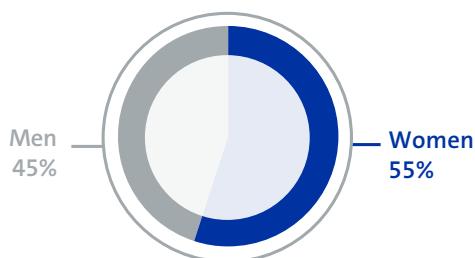
All standing committees other than the Executive Committee are composed entirely of independent directors. Each committee has a written charter setting forth its purpose, authority and duties. The committees enhance the Board's oversight of areas that are critical to GM's corporate responsibility and sustainability efforts, including: transparent and reliable financial reporting, risk identification and mitigation, ethics, vehicle and workplace safety, pay-for-performance, diversity, Board and management succession planning, shareholder proposals and nominations, corporate responsibility and political and lobbying expenditures.

In 2019, members of the Board and senior management engaged with shareholders representing approximately 50 percent of GM's outstanding shares of common stock. These engagements help the Board and management gain feedback on a variety of topics, including strategic and financial performance, operations, products,

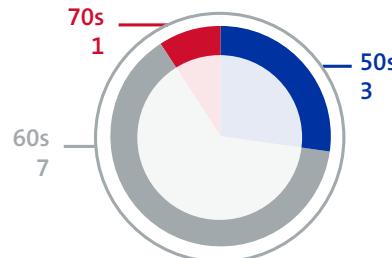
executive compensation, and Board composition and leadership structure, as well as on important environmental and social issues. The constructive insights, experiences, and ideas exchanged during these engagements have helped the Board evaluate and assess key initiatives during GM's ongoing transition to an all-electric future.

## Board Composition

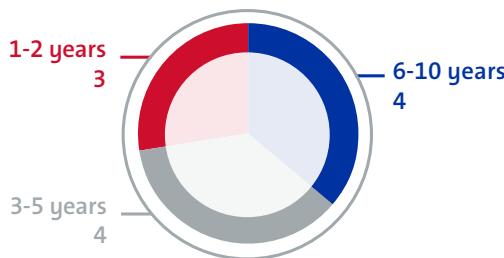
### Gender



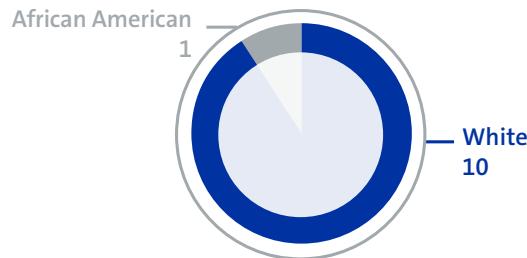
### Age



### Tenure



### Ethnicity



**62 years**  
Average age

**4.8 years**  
Average tenure

**8**  
2019 Board meetings

**23**  
2019 Committee meetings

**97%**  
2019 Board attendance

**6**  
2019 Executive sessions

## Risk Management

The Board has the overall responsibility for risk oversight, with a focus on the most significant risks facing the company. While GM does not follow the precautionary approach, the company does have a comprehensive risk management plan in place. Effective risk management is the responsibility of the CEO and other members of management, including the senior leadership team. Our Board implements its risk oversight function both as a whole and through delegation to Board committees, particularly the Risk

and Cybersecurity Committee. Each of the Board committees is responsible for oversight of risk management practices for categories of risks relevant to its functions. Our Board recognizes that cybersecurity is critical to GM's operations — particularly as management continues to execute on its future mobility strategies, such as self-driving vehicles and connected-vehicle technology. The Board believes that its structure for risk oversight provides for open communication between management and the Board and its committees.

## ESG Governance and Oversight

The Board is committed to overseeing the company's integration of environmental, social and governance (ESG) principles throughout the enterprise. This includes an annual multiday session devoted to discussing, debating and validating management's overall strategy. In the past year, these strategic reviews and discussions included labor and workforce issues, EV and AV execution, Cadillac rebranding, fuel economy regulation, capital allocation, workplace and vehicle safety, international reorganization and various alternative future business scenarios.

Additionally, ESG oversight includes frequent ESG strategic discussions by the Board's Governance and Corporate Responsibility Committee. This Committee is charged with overseeing:

- Risks related to public policy and political activities.
- Risks related to director independence and related party transactions.
- Risks related to the sustainability of our operations.

The Committee has recently reviewed the company's ESG strategy, with a broader focus on corporate purpose and culture and how those attributes align with the company's corporate strategy. GM is fortunate that several of its Board members have extensive business experience in managing ESG- and climate-related issues, such as transitioning from high- to low-carbon-emitting technologies or managing environmental impacts within the supply chain. The Board is committed to elevating GM's leadership profile and reputation among investors, policymakers and others on ESG issues and practices and believes GM has a unique opportunity to address these important issues.

ESG performance is a focus for the company and our shareholders, and GM has an ongoing commitment to ESG performance outcomes. The Compensation Committee considers ESG performance when making compensation determinations for certain members of management. The Compensation Committee factors ESG performance related to strategic goals, which account for 25 percent of the short-term incentive plan (STIP) for each named executive officer. Linking total compensation to the achievement of these individual measures increases focus on efficiency and performance across the business for our sustainability initiatives. Please see GM's 2020 Proxy Statement for further discussion of individual performance results that had a positive impact on ESG measures.

## ESG Governance





## Corporate Political Contributions and Lobbying Expenditures

The Board has an active role in overseeing how GM participates in the political process and believes it should have a role in helping to shape public policy and address legislation that impacts the company, our industry and our shareholders and other stakeholders. GM has supported and will continue to support public policies that drive the achievement of our long-term, sustainable growth. The following are highlights of the Board's role:

- To guide activities, the Board has adopted a U.S. Corporate Political Contributions and Expenditures Policy ([Political Contributions Policy](#)).
- The Governance Committee oversees the Political Contributions Policy and annually reviews the company's engagement in the public policy process.

- The Governance Committee also annually reviews all corporate political contributions, reviews GM Political Action Committee contributions and expenditures (which are funded entirely by voluntary employee contributions) and the process by which they are made and receives multiple updates each year regarding the company's direct and indirect lobbying expenditures.
- The Governance Committee annually conducts a benchmarking exercise to confirm its political contribution and lobbying expenditure disclosures aligns with peers and discusses emerging shareholder expectations.
- The Board also receives a monthly report on the most pressing public policy issues. It uses this report to continuously assess which issues are important to the company's long-term interests and which organizations the company is working with to advance those interests.



## ETHICS

The foundation of GM's business is our vision — seeing a world with zero crashes, zero emissions and zero congestion; our core values — customers, excellence, relationships and truth; and our seven core behaviors — Think Customer, Innovate Now, Look Ahead, One Team, Be Bold, It's on Me, and Win With Integrity.

Our behaviors drive our business decisions and activities worldwide, and are our road map for sustainability. General Motors was recognized by Ethisphere, a global leader in defining and advancing the standards of ethical business practices, as one of the 2020 World's Most Ethical Companies.

An ethical business starts at the top. Chairman and CEO Mary Barra and other members of our senior leadership team regularly issue messages to all employees emphasizing the importance of our Code of Conduct and their desire that every employee strive to do the right thing, even when it is difficult. Our Board of Directors is also committed to upholding the highest legal and ethical conduct in fulfilling its responsibilities. All Board members, officers and employees are expected to act ethically at all times and to adhere to the law, our Code of Conduct and our policies. Our Board also completes GM's Code of Conduct training. The Audit Committee of the Board of Directors has oversight responsibility for GM's ethics and compliance program. The Global Ethics and Compliance Center (GECC) is led by the Deputy General Counsel and Chief Compliance Officer, who reports to the Executive Vice President and General Counsel, Legal and indirectly to the Audit Committee of the Board of Directors. The Deputy General Counsel provides regular updates to the Audit Committee of GM's Board of Directors. The GECC prevents, detects and corrects violations of law and corporate policies and promotes a culture of business ethics. The GECC seeks to align GM's compliance program with the recognized elements of an effective compliance program and primarily manages GM's Code of Conduct, special investigations, ethics and compliance communications, policy development, compliance training, global whistleblower line and anti-corruption risk areas. Regional Compliance Officers are established in each of GM's operating regions to help ensure

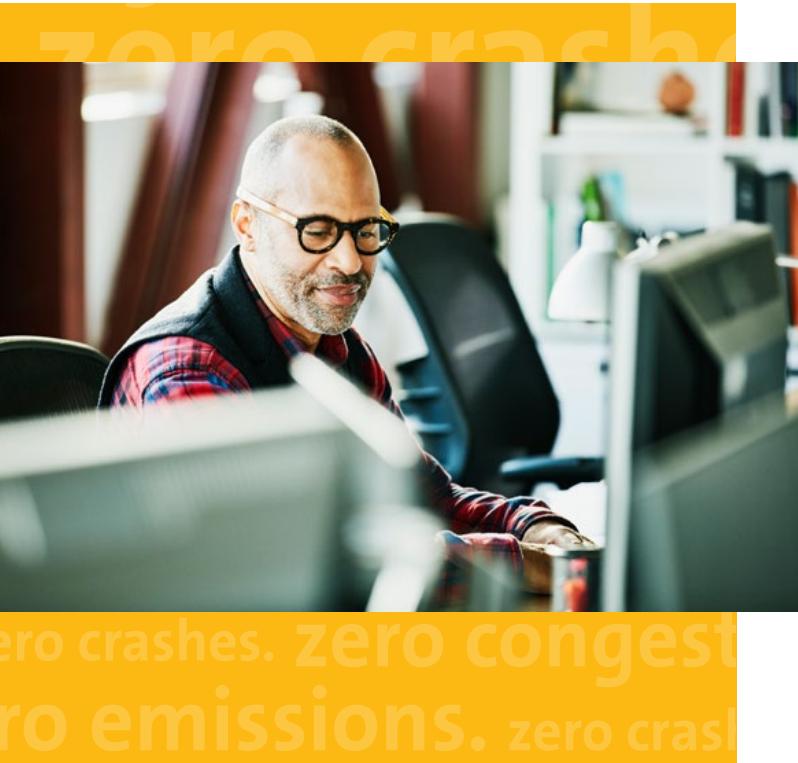
compliance globally. Additional global structures are in place for safety, export compliance, antitrust compliance, data/cybersecurity compliance, records management compliance and other key compliance areas.

## Code of Conduct

GM's [Code of Conduct](#) reinforces our commitment to a work environment founded on mutual respect, trust and accountability, and outlines the policies and obligations that guide our business conduct. It applies to everyone in our company, at every level, including employees, supervisors, Board members and subsidiaries that GM controls. We expect third parties, including suppliers, to act in a way that is consistent with the principles and values outlined in our [GM Supplier Code of Conduct](#) when conducting business with, and on behalf of, GM. We expect employees working with our third parties to hold them accountable.

GM maintains a robust conflict of interest disclosure process that applies to all salaried employees and directors. Board members who are not employees provide written disclosure of any actual or potential conflicts of interest at least once a year. To ensure compliance awareness continues throughout the year, our Global Ethics and Compliance Communications team develops and communicates compliance and ethics messages on a regular basis, underscoring the importance of various compliance and ethics topics.

Our Code of Conduct governs how our employees are expected to act: displaying integrity in the workplace, in the marketplace and in their communities when representing GM. It directs all employees to be



good stewards of the environment as embodied in our Guiding Environmental Commitments, which guide the conduct of our daily business practices worldwide. We update the Code of Conduct periodically to ensure it remains relevant and meets the needs of GM employees.

To ensure the effectiveness of our Code of Conduct, we periodically use independent firms to evaluate our compliance program. We also have regional compliance officers and other compliance personnel located throughout GM who provide guidance to employees and answer ethics and compliance questions. In addition, our Code clearly publicizes in multiple places a list of contact points, which include human resources, security, legal and audit staff, to answer employee questions.

## Reporting Concerns

GM encourages our employees to speak up and provides resources to do so. In cases where an individual is uncomfortable reporting through established internal channels, we maintain a global toll-free hotline. The Awareline is operated by an independent third party and allows employees and others to report concerns of misconduct by the company, its management, supervisors, employees or agents. Reports can be made in more than a dozen languages, 24 hours per day, 7 days per week, by phone, web or email. Reports may be made anonymously, where permitted by law.

In 2019, GM received 4,263 reports to the Awareline, of which 3,483 were classified as allegations, 234 were inquiries, and 15 were suggestions. GM tracks all reports of misconduct — whether made to the Awareline or through some other channel — in a case management system that facilitates efficient investigation, follow-up and trend analysis. The current system was implemented in late 2018 and improves upon the prior system in many ways, most notably in that it allows GM to follow up with individuals who submit Awareline reports anonymously while preserving those reporters' anonymity. This new functionality has significantly improved GM's ability to investigate and remediate anonymous allegations.

Allegations of misconduct are reviewed and prioritized based on a number of factors, including the type of misconduct, the position of the alleged wrongdoer within the company and whether the allegation entails any potential violations of law. High-priority cases receive special scrutiny and review; a cross-functional committee meets monthly to discuss their investigative progress and resolution. There is also a quarterly review process to determine which cases, if any, require reporting to the Board of Directors or Audit Committee, as well as processes in case a particular allegation requires more immediate reporting.

For potential vehicle safety issues, a special Speak Up For Safety hotline was established in May 2014.

## 2019 Types of Allegations Received

Category	Proportion of Allegations
Accounting, Auditing and Financial Reporting	0.25%
Business Integrity	5%
Human Resources, Diversity and Workplace Respect	38%
Environment, Health and Safety	26%
Misuse, Misappropriation of Corporate Assets	31%

*Numbers do not total 100 percent due to rounding.*

Speak Up!, [GM's non-retaliation policy](#), is intended to protect GM employees from retaliation as a result of raising concerns in good faith. Industry benchmarking data shows that the majority of misconduct reports are made to an employee's manager. To help our own GM managers in such circumstances and to provide additional guidance regarding GM's non-retaliation policy, the GECC and Global Security teams developed a tool kit on how to address workplace retaliation, and also added non-retaliation scenarios to the live "What Would You Do?" course available to managers.

**68,823**  
employees, contract workers  
and suppliers completed  
compliance training

**33,615**  
other online compliance courses  
taken by GM employees

**9,235**  
in-person advanced compliance  
training modules delivered directly  
from the compliance group

**6**  
required courses

**446,551**  
total online courses delivered

## Ethics Training and Education

Training is a critical aspect of reinforcing an ethical culture. Every year, all eligible salaried employees are required to review the Code of Conduct and complete Corporate Required Training. Corporate Required Training emphasizes four areas: the topics found in GM's Code of Conduct, guidelines for protecting GM's informational assets, respectful workplace (anti-harassment, diversity, nondiscrimination) and safety (including both product and workplace safety). Although these topics are covered every year as part of Corporate Required Training, the courses are updated annually with new content, new scenarios and new exercises.

Corporate Required Training also includes courses on specific legal and regulatory risks, including Anti-Corruption, Antitrust, Data Privacy, Cybersecurity, International Trade and Information Lifecycle Management. These detailed courses are rotated in and out of the Corporate Required Training every two to three years. We use adaptive technology that tailors the courses to an individual's job responsibilities.

GM's Compliance Training and Communications Group within the GECC oversees the process of regularly updating the Corporate Required Training. To develop new content, we begin by drafting design objectives, course standards and a list of the exact risks that a training program must address. We follow guiding principles of trust, respect and accountability as we select vendors, determine how many courses to offer, set completion deadlines and make other course-related decisions. For example, we show respect for our employees by ensuring courses are relevant to their role, keeping courses concise and setting consistent content standards. Required training in 2019 included:

- GM Code of Conduct: Winning with Integrity
- Product and Workplace Safety Training: Never Forget
- GM Information Security: Think Before You Click, Share or Post
- Workplace Harassment: A Global Perspective
- Global Anti-Corruption Compliance
- Get Secure — Stay Secure

Once employees complete training, they are required to certify that they agree to comply with the policies contained in the Code of Conduct, and that they have reported any violations of the Code and any vehicle or workplace safety issues. In 2019, GM achieved a

100 percent completion rate among eligible salaried employees for both our Corporate Required Training and Code of Conduct Certification Program.

Beyond distributing our Code of Conduct and requiring annual training on ethics- and compliance-related topics, we use risk-based principles to provide in-person training to thousands of employees each year. For example, the Compliance team conducted live training sessions to targeted audiences on topics that included export compliance, anti-harassment and other relevant compliance topics. The GECC also launched on-demand microlearning models in 2019 so that employees can access refresher training on gifts and entertainment, anti-corruption or conflicts of interest processes as needed. We also recognize Corporate Compliance and Ethics Week, organized each year by the Society of Corporate Compliance and the Ethics & Health Care Compliance Association (SCCE and HCCA). By keeping ethical behaviors top of mind for all GM employees, we will continue to win with integrity in our dealings with suppliers, governments and other third parties.



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# HOW WE WIN WITH INTEGRITY

*A Conversation with Ann Cathcart Chaplin,*

*Chief Compliance Officer and*

*Deputy General Counsel*

*In early 2020, General Motors was recognized by Ethisphere, a global leader in defining and advancing the standards of ethical business practices, as one of the World's Most Ethical Companies. GM is one of only four honorees in the automotive industry and the only automotive original equipment manufacturer. The following interview appeared in the Spring 2020 issue of "Ethisphere Magazine."*

## What does being a World's Most Ethical Companies honoree mean to GM?

This honor is a testament to everyone at General Motors. Winning with Integrity is one of GM's core behaviors. In a time of incredible disruption in our industry and the world, our vision of Zero Crashes, Zero Emissions and Zero Congestion is guided by our commitment to do the right thing and put the customer at the center of everything we do. As our CEO and Chairman, Mary Barra, says: "We have a rare opportunity to transform our world and our company, but if we win without integrity, then we do not win." I am so proud of our company and our team, which lives and strengthens GM's ethical culture. The honor is a recognition of the journey we've been on at GM to transform our company and our industry. It shows that people at General Motors are doing the right thing, even when it's hard to do. And it tells our customers, shareholders, business partners and other stakeholders that GM is a company they can trust.

## Managers are on the front lines of any ethics and compliance program, and our data shows that most employee concerns end up with their direct manager first. How does GM train managers to deal with ethics issues?

We regularly survey our employees around ethics and compliance topics, and this matches GM's internal ethical culture survey data. GM employees consistently indicate that they first report issues to their direct people leader, and our policies encourage them to do so, while also making available methods for anonymous reports or reports to other functions within the company, like our ethics and compliance group.



**“It’s critical that we provide the right training and messaging to our people leaders, so that they have tools to create a ‘speak-up’ environment and are prepared to address employee concerns.”**

**ANN CATHCART CHAPLIN, GM Chief Compliance Officer and Deputy General Counsel**

Being bold is another of GM's core behaviors and it means respectfully speaking up, exchanging feedback and boldly sharing ideas without fear of retaliation. Promptly raising issues is important to quickly and appropriately addressing them. Speaking up and non-retaliation are core tenants of GM's Code of Conduct and ethics and compliance training program. It's critical that we provide the right training and messaging to our people leaders, so that they have tools to create a 'speak-up' environment and are prepared to address employee concerns.

Our Code of Conduct has a dedicated section on supervisors' responsibilities and contains examples and decision trees. In addition to the general Code of Conduct training all employees receive, GM provides a "What Would You Do" classroom course that presents leaders with various scenarios and examines how they could and should react. GM created an internal portal for people leaders that provides messaging, toolkits and other information to help them carry out their responsibilities.

## CCO Q&amp;A CONTINUED

We also developed a non-retaliation toolkit for people leaders to supplement GM's Non-Retaliation Policy and provide helpful guidance regarding how to respond when an employee raises concerns or fears retaliation. GM requires many in-depth, multiday training sessions for executives and senior leaders that include ethical leadership components. Last year, GM rolled out a mandatory "People Leader Basics" program that provides leaders with training on their responsibilities, including encouraging and supporting ethical and compliant conduct.

Our efforts are making a difference. For example, in our Speak Up For Safety program, which allows for anonymous reporting, over 90 percent of reporters choose to identify themselves. This demonstrates that our employees do not fear retaliation and want to be associated with raising potential safety issues.

**These CSR commitments necessarily involve third-party suppliers in your supply chain as well. What's GM's approach to making sure that third parties can meet your high standards?**

Tone at the top is key, and our leadership team is aligned on creating a culture of integrity that extends to our suppliers. GM is a founding member of the Automotive Compliance Roundtable, a group of Chief Compliance Officers at automakers and certain Tier 1 suppliers who work to promote ethics and compliance in our industry and companies.

We created a Supplier Code of Conduct to promote ethics and compliance in our supply chain and make GM's expectations clear. Our employees are directed to hold suppliers accountable and monitor their activities. GM utilizes a robust due diligence process for vetting new suppliers and business partners and expects our business partners to meet our standards and behave in a manner consistent with GM's values throughout the supply chain. Our Supplier Code of Conduct details our expectations across broad areas that include human rights, health and safety, the environment and business integrity. Among other things, we maintain a supplier portal website to promote communication between GM and suppliers and expect our suppliers to promptly report integrity concerns to GM. We provide specific methods and tools for suppliers to report concerns.

We work cross-functionally to audit suppliers and seek compliance certifications. GM responds when we become aware of violations, up to and including termination of contract. For example, we worked with suppliers to examine their practices around labor issues, and found that a supplier was not meeting our expectations, so we initiated a new sourcing hold until the supplier could develop a remediation plan to bring their practices into compliance.



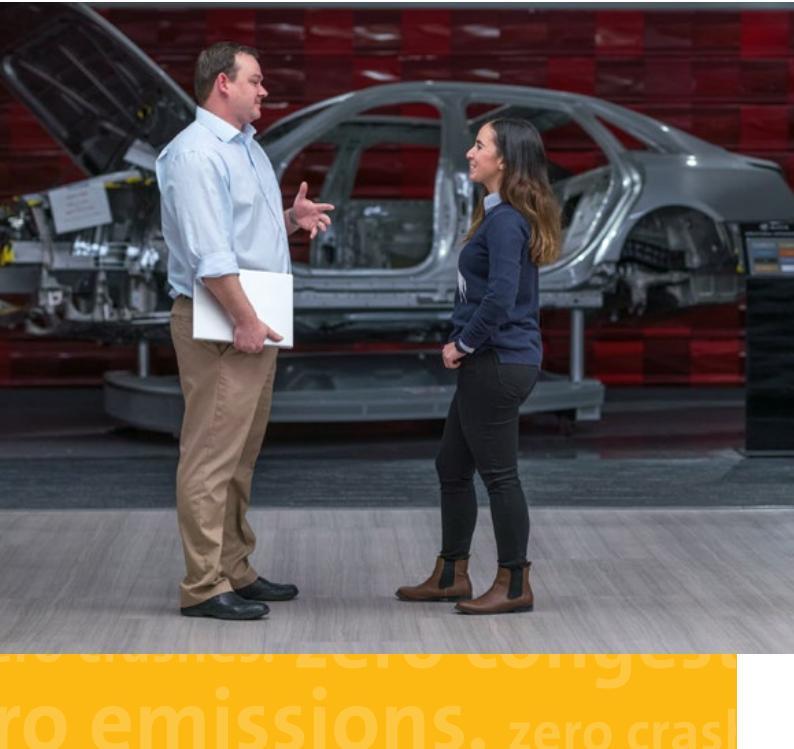
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**Safety is obviously of enormous importance for a major manufacturer such as GM. How does compliance integrate with and complement your safety efforts? Where can you learn from each other?**

At GM, safety is a foundational commitment — never compromised. We are committed to safety in everything we do. And safety is fundamental to our compliance program. Our Code of Conduct leads with a message from our CEO that reiterates the importance of safety, followed by a specific safety message, and it is interwoven throughout the remainder of the Code.

At GM, integrity and safety are two sides of the same coin — you cannot have one without the other. Every meeting at GM begins with a "safety moment" to ensure safety is always top of mind — whether at the office, driving one of our vehicles, working at a plant, or living safe practices at home. These safety moments create an

## CCO Q&amp;A CONTINUED



**GM has very transparent goals and reporting around CSR initiatives such as the sourcing, construction, and environmental impact of your products. How does GM think about its commitment to transparency versus the need to keep some information private?**

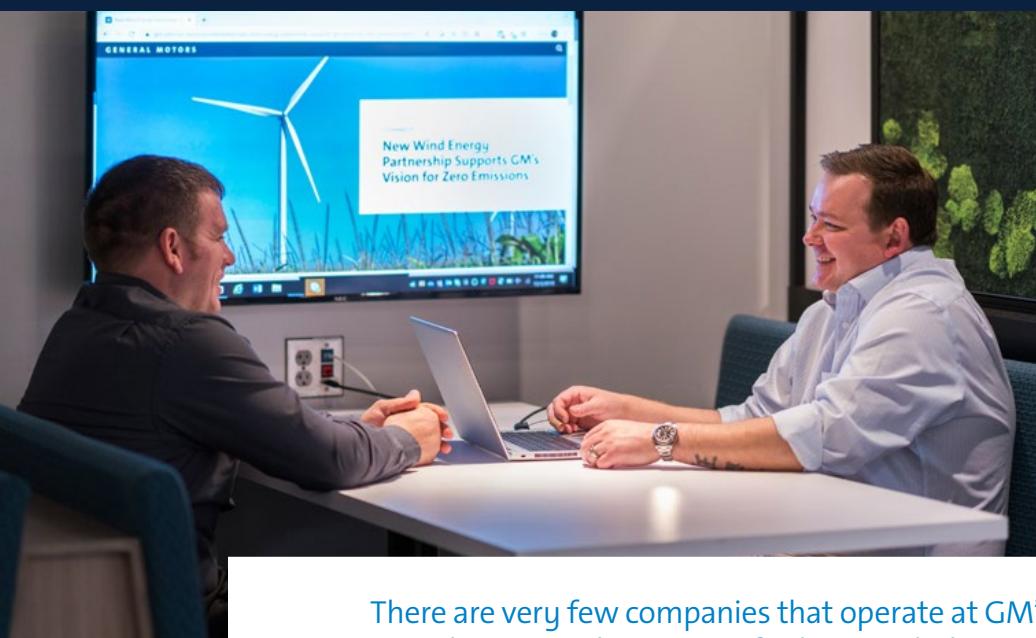
In 2018, GM was named the fourth most transparent S&P 500 company for ESG disclosure by Agenda, a corporate governance newsletter. Transparency, both internally and externally, builds trust. GM is committed to publicly reporting on ESG topics on an annual basis, discussing the opportunities and challenges that we encounter as we work to enhance performance and conduct business with integrity as a core value. The reporting process not only helps us manage and measure our progress, but also helps us to engage with both internal and external stakeholders.

GM is committed to being transparent and continually tries to share more data with the public, as well as internally. We seek to share data that helps our investors and our employees get a better understanding of what we're doing, why we're doing it and the progress that is being made. On the other hand, there are some areas where confidentiality is important, like protecting the confidentiality of those who raise concerns. But even here, we've increased our public reporting in areas like the number of reports to our whistleblower hotline.

We publish public data on the number of reports in broad issue areas, and we use anonymized examples from our investigation files in internal communications to help guide our employees in making the right decision. In fact, some of our most frequently read compliance communications come from our compliance case files series, stories that share lessons learned from GM compliance investigations or outside compliance issues in other companies or industries.

opportunity to pause and reflect on our core values and behaviors. My experience is that this makes a direct impact on other areas important to our compliance program, like ethics and integrity.

Our safety and compliance teams meet regularly to share information and best practices, as well as identifying and addressing potential issues. We work cross-functionally, bringing different expertise and skills to the organization and thinking about issues from a different perspective. The importance of cross-functional coordination and breaking down silos was a key lesson that we learned from the ignition switch crisis. We took those lessons very seriously and fundamentally transformed our company. We created new, senior positions focused on safety and revamped our policies, procedures and protocols. Perhaps more important, our CEO and leadership team, and every function across our company, drove real, sustainable cultural change focused on making the customer the center of everything we do, with safety as our foundational commitment.



There are very few companies that operate at GM's level globally: 164,000 employees working in 400 facilities, including 89 manufacturing plants and affiliations with 12,650 locally owned dealerships worldwide.

Our efforts pay significant dividends: Sound environmental management helps drive manufacturing excellence and significant cost savings while reducing various operational risks — all of which helps us offer customers better vehicles at more affordable prices. We measure and manage natural resources use at all manufacturing locations, engineering centers, parts distribution centers and proving ground sites around the world. These facilities vary in function, geography, size and surrounding natural environments, which gives rise to varying concerns such as resource scarcity, dozens of different regulatory requirements and different levels of environmental quality. And, although GM-owned and -operated facilities have their own operating plans depending on their location, all function under a common Environmental Policy which provides an effective foundation for environmental stewardship and supports our efforts to build the most valued automotive company. Our operational impact strategy across facilities has common attributes:

- It's heavily reliant on innovation, using as much creativity and out-of-the-box thinking in our conservation efforts as we do in innovating new vehicle technologies. In fact, we often cross functions, such as manufacturing and vehicle development, as we work to realize new resource efficiencies.
- It's a collaborative process that reflects a manufacturing culture steeped in the sharing of best practices. We often collaborate with other businesses and organizations to address tough challenges and engage local communities, NGOs, and educational institutions on environmental stewardship.
- It's incentivized by linking the annual environmental performance of our facilities and our 2020 operational environmental commitments to the compensation of a cross-section of global manufacturing employees and plant-level management. In addition, employees in the U.S. who offer energy and water conservation or waste elimination ideas that are implemented are eligible to receive a portion of the savings up to US\$20,000.

GM has a robust process to enhance the integration of environmental sustainability practices into daily business decisions and to:

- Comply with applicable environmental laws and regulations globally.
- Monitor GM's performance according to GM's own Environmental Performance Criteria (EPCs), which are universal corporate performance requirements designed to protect human health and the environment in accordance with the GM Environmental Policy.
- Conform to other key performance indicators, such as (a) water, energy and waste intensity reduction targets (b) sustainability outreach initiatives and (c) environmental performance metrics.

Each GM manufacturing site has one or more environmental engineers, who are supported by a GM regional environmental leader and a team of subject matter experts in central offices. Our Global Sustainable Workplaces organization oversees and manages these teams. We also have an annual business planning process, known as Business Plan Deployment (BPD), to strengthen the management of environmental performance, which links our Global Manufacturing employees and their annual compensation to GM's performance against our 2020 environmental operational commitments. Performance on BPD metrics and goals is monitored monthly at all GM manufacturing sites, including environmental performance. Action plans are developed as needed to ensure we keep performance on track.

## Environmental Policy

As a responsible corporate citizen, GM has a Global Environmental Policy that provides guidelines to help minimize the impact of our activities, products and services on the environment. The policy establishes a globally consistent standard intended to protect human health and the environment by incorporating sustainability practices into our design, engineering, manufacturing and logistics that support compliance while minimizing negative environmental impacts.

GM's Guiding Environmental Commitments are the foundation of our Environmental Policy. The Commitments serve as a guide for all GM employees worldwide, encouraging environmental consciousness in both daily conduct and in the planning of future products and programs. They include:



### Taking Care of Our Planet

We are committed to actions that restore and preserve the environment.



### Environmental Stewardship

We are committed to participating actively in educating the public regarding environmental conservation and biodiversity.



### Water Conservation and Quality

We are committed to responsibly using water while taking actions that preserve water quality and conservation across our operations, in our supply chain and in the communities in which we operate.



### Greenhouse Gas Emissions and Climate Change

We believe climate change is real and are committed to the public disclosure of our GHG emissions and taking actions to reduce them.



### Energy Management

We are committed to energy conservation and energy efficiency improvements throughout our global sites and operations.



### Waste Reduction

We are committed to reducing waste and pollutants while conserving resources and recycling materials at every stage of the product life cycle.



### Improving Technologies

We are committed to vigorously pursuing the development and implementation of technologies for minimizing pollutant emissions from products and our operations.



### Obeying Environmental Regulations and Policies

We are committed to working with all government entities for the development of technically sound and financially responsible environmental laws and to complying with applicable laws and regulations.



### Responsible Sourcing

We are committed to responsible sourcing and working with our suppliers to develop sustainable solutions.



### Environmental Management System (EMS)

We are committed to a systemic management approach to minimizing and eliminating our environmental impacts around the world. We will consistently and continually assess the impact of our operations and our products on the environment and the communities in which we live and operate with a goal of continuous improvement.



### Renewable Energy

We are committed to using renewable energy at our facilities and sites globally and will advocate for policies that promote renewable energy use and demand.



zero crashes. zero congestion. zero emissions. zero crashes.

Our Environmental Policy and Guiding Environmental Commitments provide a framework for manufacturing and nonmanufacturing facilities and major technology centers around the world to implement global policy, consistent and complementary local policies and EPCs. This approach helps us to strive for operational compliance across all sites at all times and to embed a philosophy of continuous improvement into each facility's EMS. These site-specific actions play a significant role in our overall environmental compliance, ensuring that local plant policies:

- Are appropriate to the nature, scale and environmental impacts of its activities, products or services.
- Reinforce a commitment to comply with applicable laws and regulations and with other relevant environmental requirements.
- Include a commitment to continuous improvement and pollution prevention.
- Provide the framework for setting and reviewing environmental goals and targets.
- Are documented, implemented, maintained and communicated to all employees.

Statutory, regulatory and permit programs administered by various governmental agencies impose numerous environmental requirements on our facilities and products. Compliance with all applicable environmental requirements is an organizational imperative. Compliance issues occasionally arise, and each allegation of noncompliance is treated seriously by GM. In 2019 GM received 12 Notices of Violation (NOVs), nine in the U.S. and three outside the U.S. GM took actions to resolve these NOVs. GM paid one \$500 USD fine in South Korea. There were no penalties or fines equal to or in excess of \$10,000 USD.

## Environmental Management System

All manufacturing facilities that GM owns and operates, and a majority of our nonmanufacturing sites around the world, have implemented an EMS. GM's global operations either obtain certification of compliance to the International Organization for Standardization (ISO) 14001 Standard from a third party or self-declare conformance to the ISO 14001 Standard requirements. GM's EMS system combines elements of ISO 14001 and management system elements that are unique to our operations.

GM EMS specifications are designed to drive a continuous performance improvement cycle in line with legal requirements, site-specific objectives and targets, and corporate and regional policies and strategies. Overall, each of our global manufacturing operations has integrated their EMS within the GM Global Manufacturing System and Business Plan Deployment process, resulting in an EMS with attributes beyond those specified in ISO 14001. This integration ensures we achieve our environmental commitments as a normal part of our business activities.

For GM sites that self-declare conformance to ISO 14001, GM has developed a robust implementation and review process. In the U.S., our self-declared ISO 14001 system undergoes a third-party review of the program design. To objectively monitor conformance to the standard, GM embeds ISO 14001-certified third-party auditors who participate in a third of our manufacturing sites' ISO 14001 corporate audits. Our components manufacturing operations in the U.S. use ISO-certified third-party auditors to assess ISO 14001 compliance, and some other U.S. manufacturing facilities use ISO-certified third-party auditors to assist with conducting ISO 14001 internal audits. These quality checks of GM's ISO 14001 program ensure that our self-declaration process is as robust as an ISO 14001 third-party-certified system. GM manufacturing operations in other regions currently utilize third-party accredited registrars to certify conformance to the ISO 14001 standard.

Over the next two years, GM is aligning all our global manufacturing operations to a common, global, third-party certified ISO 14001 Enterprise Program. In 2019, GM did extensive benchmarking of industry best practices in ISO 14001 certification models and then



whether the country in which the paint shop is operated has adopted specific air emissions requirements. Where laws are more stringent than our EPCs, the law supersedes.

We are expanding our tracking of environmental compliance and sustainability performance in manufacturing operations by leveraging the Manufacturing Excellence Indexes (MEI) system created by Manufacturing as an internal GM scoring tool to benchmark GM operations performance against internal and external facilities. The new environmental metric system, launched in 2020, correlates electronically stored information on environmental compliance performance and the impactful sustainability initiatives our facilities are involved with across the globe. Some examples of tracked performance items include waste diversion rate, wildlife habitat participation, environmental audit performance and corrective action closure. This use of real-time data provides the organization a way to measure performance, assess risk and drive continuous improvement. In addition, this system will be used annually to evaluate best-in-class performance in the areas of environment and sustainability, with top efforts awarded an “Annual Environmental Award” presented by our Manufacturing VP and CSO.

## Employee Environmental Training

Our people are key stakeholders in our environmental stewardship and are critical to our environmental performance. We strive to have the best-trained environmental professionals in the world. Although most environmental training is specific to a facility, country or region, we continually provide strategic training and guidance to our environmental professionals to help them keep pace with evolving environmental issues and best practices that could have application worldwide. Our training addresses a variety of issues, including, but not limited to, implementation of corrective and preventive actions, effective use of safety data sheets, management of GHGs, SARA Reporting (US Only), Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) Training (US Only) and regulatory requirements for air, waste and water.

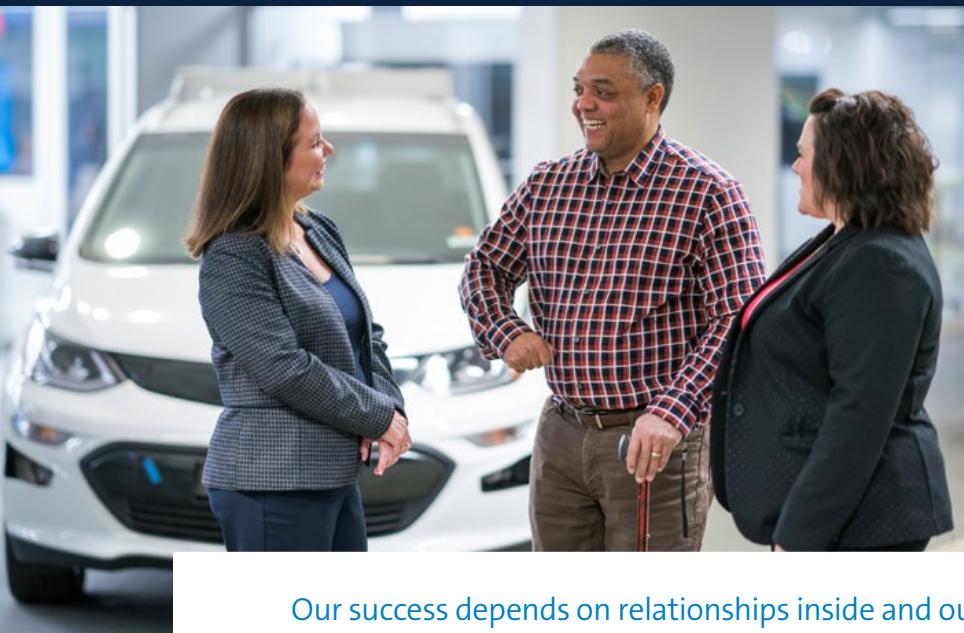
Environmental professionals develop goals through the company's Individual Development Plan (IDP) and seek personal and professional development through internal and external conferences, webinars, and lunch and learns. In the U.S., annually environmental professionals attend a two-day conference where speakers, both internal and external to the company, educate on a variety of topics to enrich the knowledge of our environmental professionals. In addition, environmental engineers are trained on GM compliance systems and how to effectively evaluate regulatory and company requirements. In Canada, new environmental professionals receive at least 40 hours of training initially, followed by regular refresher training. In addition, some Canadian environmental professionals receive specialized training as certified toxic substance reduction planners. Outside North America, we have developed a Global Environmental Certification and Training Program focused on GM's Guiding Environmental Commitments, our internal EPCs and industry best practices.

began by redesigning the U.S. program from an individually conforming program to an Enterprise conformance model. Currently we are developing a common framework to align all our North America manufacturing sites by the end of 2020 and from there further transition the common framework with the remaining global facilities by the end of 2021.

New manufacturing operations must develop and implement an EMS program within 24 months of the start of production or the date of acquisition. By maintaining an integrated, common EMS, we can enhance and measure environmental performance and easily share knowledge, processes and technologies that enable GM to meet our environmental goals.

## Environmental Performance

Implementation of our Guiding Environmental Commitments is facilitated by GM EPCs that apply to our global facilities and major technology centers. The EPCs are internal performance requirements for the management of environmental matters at our facilities. In many cases, they also supplement applicable legal requirements by setting minimum standards for environmental management and performance practices that may be more stringent than those required by law. As a result, we work to ensure that a base level of environmental performance is achieved, regardless of where a facility is located or whether a particular jurisdiction has an environmental regulatory program in place. For example, the EPCs establish a global baseline standard for all new assembly operations abatement with regard to paint shop emissions and associated minimum technology requirements, regardless of



Our success depends on relationships inside and outside the company. This core value drives engagement with our stakeholders. We engage these stakeholders in a variety of ways, all with the goal of sharing information and informing business decisions with meaningful dialogue.

Brand marketing, investor relations, global purchasing, human resources, labor relations and government relations are some of the GM functions that engage stakeholders on a regular basis to understand and address concerns, as well as to advance social and environmental goals. Forms of engagement include, but are not limited to, quantitative consumer research studies, stakeholder focus groups, congressional testimony, blog posts and community meetings.

For the past 10 years, our global sustainability team also has engaged with stakeholders through Ceres, a nonprofit organization advocating for corporate sustainability leadership. Recently, this engagement has focused on specific topic areas, such as human rights, when GM has needed to garner insights and perspective from subject matter experts and other third parties.

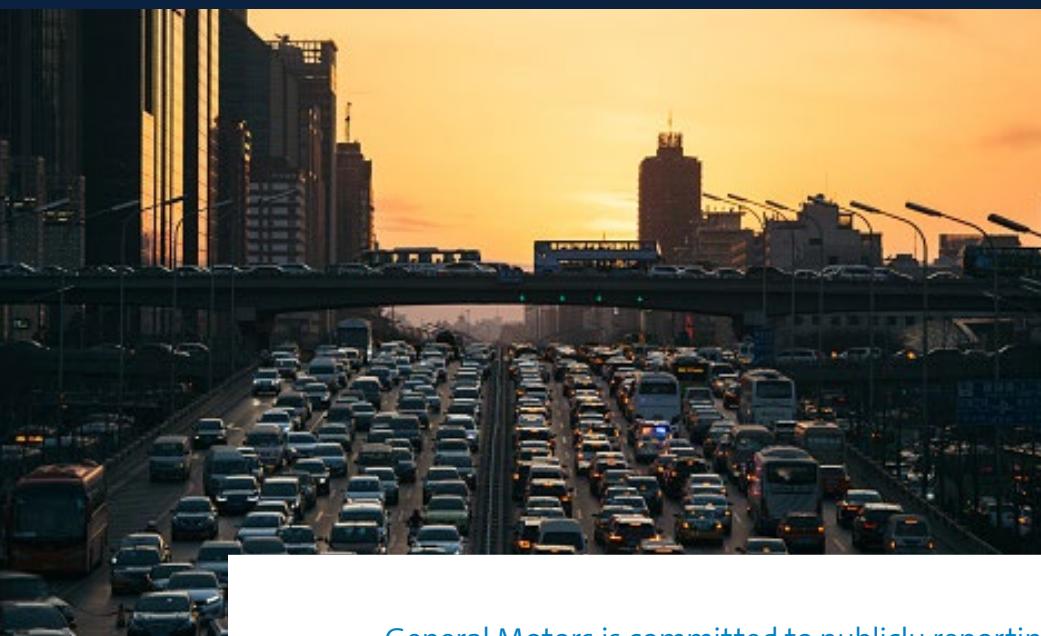
## STAKEHOLDER ENGAGEMENT

### ESG Interest From Investors

We continue to see increased interest in nonfinancial issues from investors who believe that these issues and positive contributions to society can be important indicators of long-term performance. In response, we are engaging with investors more often on these topics so that both GM's financial and nonfinancial performance can be considered together. As an example, GM teams — including our CEO, CFO, corporate secretary and director of investor relations, as well as GM's lead independent director and the chair of the Board's governance and corporate responsibility committee — have conducted briefings with some of our largest shareholders. Topics have included corporate governance, company culture, workplace and vehicle safety, and diversity and inclusion. In 2019, members of the Board and senior management engaged with shareholders representing approximately 50 percent of GM's outstanding shares of common stock.

Who We Engage With	Why It Matters	Examples of How We Engage
<b>CUSTOMERS (both individual and fleet)</b>	We aim to earn customers for life, which ensures the long-term sustainability of our business in a competitive and changing marketplace.	Participating in customer satisfaction surveys to understand what vehicle attributes customers value. Partnering to expand EV charging infrastructure. Educating customers on the benefits of EVs. Publishing an annual Sustainability Report.
<b>INVESTORS AND ANALYSTS</b>	Investors are increasingly interested in greater disclosure and transparency, particularly related to ESG topics and performance, which they link to long-term value.	Holding focused conversations and briefings to put data in context. Reporting to frameworks including SASB and TCFD.

Who We Engage With	Why It Matters	Examples of How We Engage
<b>EMPLOYEES</b> (both current and potential new talent)	We must attract and retain top talent to remain innovative and build competitive advantage.	Recruiting talent at colleges and universities. Adhering to a responsible employer philosophy, which includes paying a living wage and offering competitive benefits. Conducting a global Workplace of Choice survey. Holding regular conversations with labor partners such as the United Auto Workers.
<b>SUPPLIERS</b> (Tier I and beyond)	As our vehicles increase in technological complexity and we seek to make our supply chain more sustainable, we need strong and collaborative relationships with suppliers around the world.	Participating with organizations that help foster responsible supply chains industry-wide, such as: <ul style="list-style-type: none"><li>Automotive Industry Action Group (AIAG)</li><li>Suppliers Partnership for the Environment</li><li>International Automotive Task Force</li></ul> Assessing risks related to mineral sourcing through engagement with the Responsible Minerals Initiative. Helped develop a global platform for sourcing of sustainable natural rubber.
<b>DEALERS</b> (and dealer councils)	Dealers are our first line of engagement with customers, and we rely on them to help us build trust.	Using Standards for Excellence and Essential Brand Elements to evaluate performance. Maintaining the Mark of Excellence program to recognize high-achieving dealers.
<b>COMMUNITIES</b>	Improving lives in the communities where our employees live and work is directly linked to the health of our business. We also have a strategic interest in developing a pipeline of talent proficient in STEM.	Volunteering for STEM education initiatives worldwide. Sponsoring innovation challenges related to STEM subjects, such as MIT-SOLVE. Working with academic and nonprofit partners to educate community members on the importance of driving safety and seatbelt usage. Improving quality of life in communities where we operate through volunteerism and donations.
<b>GOVERNMENTS</b> (at the national, state/provincial and local levels)	We work with government representatives at all levels to provide information about our business to advance policies that help GM realize its vision and contributions to local economies.	Engaging on fuel economy standards with the U.S. Environmental Protection Agency (EPA), NHTSA and California Air Resources Board. Continued commitment to engaging in innovative city and mobility initiatives as we have done in the past with the Smart Cities Challenge and others, to tackle congestion and other transportation challenges.
<b>NGOS</b> (both environmental and social)	NGOs have the power to influence public opinion, as well as to provide us with insight and guidance on emerging issues.	Partnering on issues related to resource conservation. Sharing best practices with other companies that have made renewable energy commitments through RE100.



## REPORTING PRACTICES

General Motors is committed to publicly reporting on ESG topics on an annual basis, discussing the opportunities and challenges that we encounter as we work to enhance performance and conduct business in the most responsible manner possible.

The reporting process not only helps us manage and measure our progress, but also helps us to engage with both internal and external stakeholders around the world.

### Reporting Scope

Our previous report covered calendar year 2018 and was published in June 2019. The editorial content of this report generally covers subject matter for calendar year 2019 and early 2020 and is limited to operations owned and/or operated by GM. In some instances, data has been included for operations in which GM's interest is through a joint venture. Such data is noted in this report. All metrics related to GM manufacturing and product commitments, as well as workforce and financial data, refer to the calendar year ended December 31, 2019.

### Presentation of Content

GM used the GHG Protocol Corporate Accounting and Reporting Standard, published by WBCSD and WRI as a basis for our methodology for publicly reporting GHG.

### Reporting Frameworks



#### GRI

This report has been prepared according to GRI Standards: Comprehensive Option.



#### SASB

This is the third year that GM has reported to the Sustainability Accounting Standards Board framework. Our intent is one of continuous improvement as we report to metrics included in the Transportation Standards.



#### TCFD

The Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD) has developed a voluntary, consistent, climate-related financial risk disclosure for use by companies in providing information to investors, lenders, insurers and other stakeholders. The TCFD framework rests on four main tenets. The table on [page 146](#) provides sections of this report that address those tenets.



### CDP

GM has worked with CDP since 2010, when we began tracking carbon emissions and reduction activities through the CDP Climate Change Program. Since 2013, we have reported all 15 categories of Scope 3 emissions and in 2019 received an A- on climate change performance. In addition to the climate change program, we have voluntarily participated in the CDP Water program since 2011 and were named again to the CDP Water Security A list in 2019.

We also participate in the CDP Supply Chain program, engaging our supply chain for the past six years in actions to reduce their emissions, mitigate their effects on climate change, address water security and strengthen their overall businesses. We continue to use the information gained from this program to more accurately measure our indirect GHG emissions and water impact and prioritize our climate change risk and water security management within the GM supply chain. In 2019, GM responded to CDP Forests for the first time related to timber and rubber using the short version. We intend to respond to the full version in 2020. Read more about CDP Supply Chain on [page 93](#).



### United Nations Global Compact

We are a signatory to this voluntary initiative based on CEO commitments to implement universal sustainability principles and support UN goals. As part of our annual disclosure, we include an index that aligns report content with the Compact's 10 Principles.



### United Nations Sustainable Development Goals

We map our most material issues to the 17 sustainable development goals and the underlying targets where we have the most opportunity for impact. An index for this exercise is included in the report. During 2019, we refreshed our materiality assessment and intend to use its findings to further refine our focus on the UNSDGs.

## Assurance

For 2019, Stantec conducted limited independent assurance of operational management topics such as: waste, water, carbon and energy data for global facilities. See Stantec's full statement of assurance on [page 171](#). Due to limited assurance on most material data streams within the report, this review only involves operational management. Neither the GM Board of Directors nor senior management is involved in seeking assurance for the report.

## Materiality Assessment

The content of this report and many of our sustainability initiatives is based on the results of a global materiality assessment, a process we undertake every two to three years. The use of "material" or "materiality" in this report is not related to or intended to convey matters or facts that could be deemed "material" to a reasonable investor as referred to under U.S. securities laws or similar requirements of other jurisdictions. A third party, CRI Communications, conducted the assessment in 2019 based on a process outlined in the GRI Technical Protocol.

**IDENTIFY:** Relevant sustainability topics covered in previous materiality assessments, as well as key industry reports, were reviewed to finalize a list of 37 ESG topics and subtopics.

**PRIORITIZE:** Two online surveys were deployed to GM employees and external stakeholders globally. Internal respondents were asked to rate the level of impact each topic would have on GM's business over the next five years, as well as selecting topics that represented the greatest leadership opportunities and greatest business risks for GM. External stakeholders were asked to rate topics based on the level of impact that GM's management of each topic would have on the world around us, as well as selecting topics that would influence their opinion of GM or decision to invest in GM.

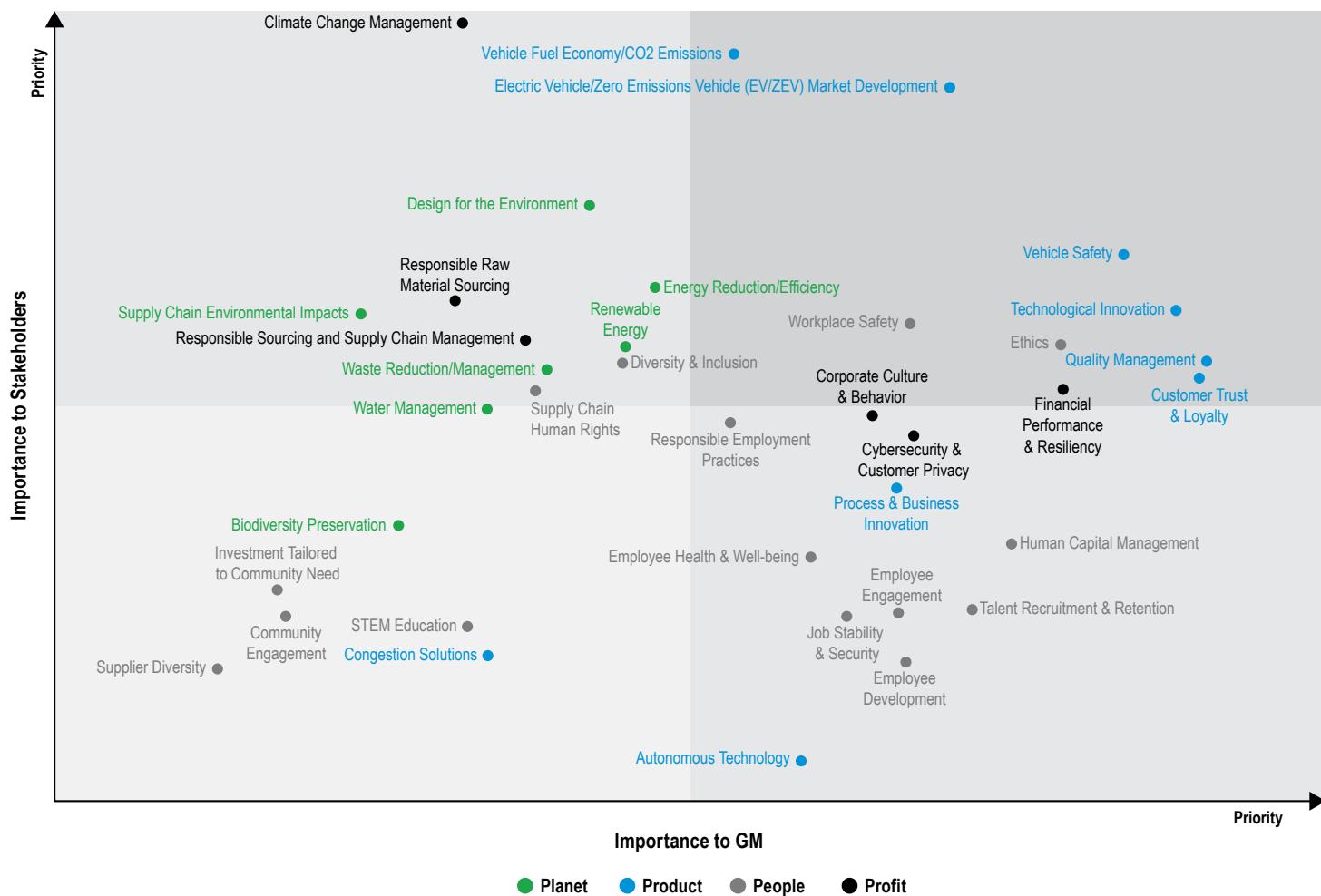
**VALIDATE:** Based on the survey results, all 37 topics were plotted on a preliminary materiality matrix, which was reviewed by GM's internal sustainability team in order to validate the relative importance of each topic.

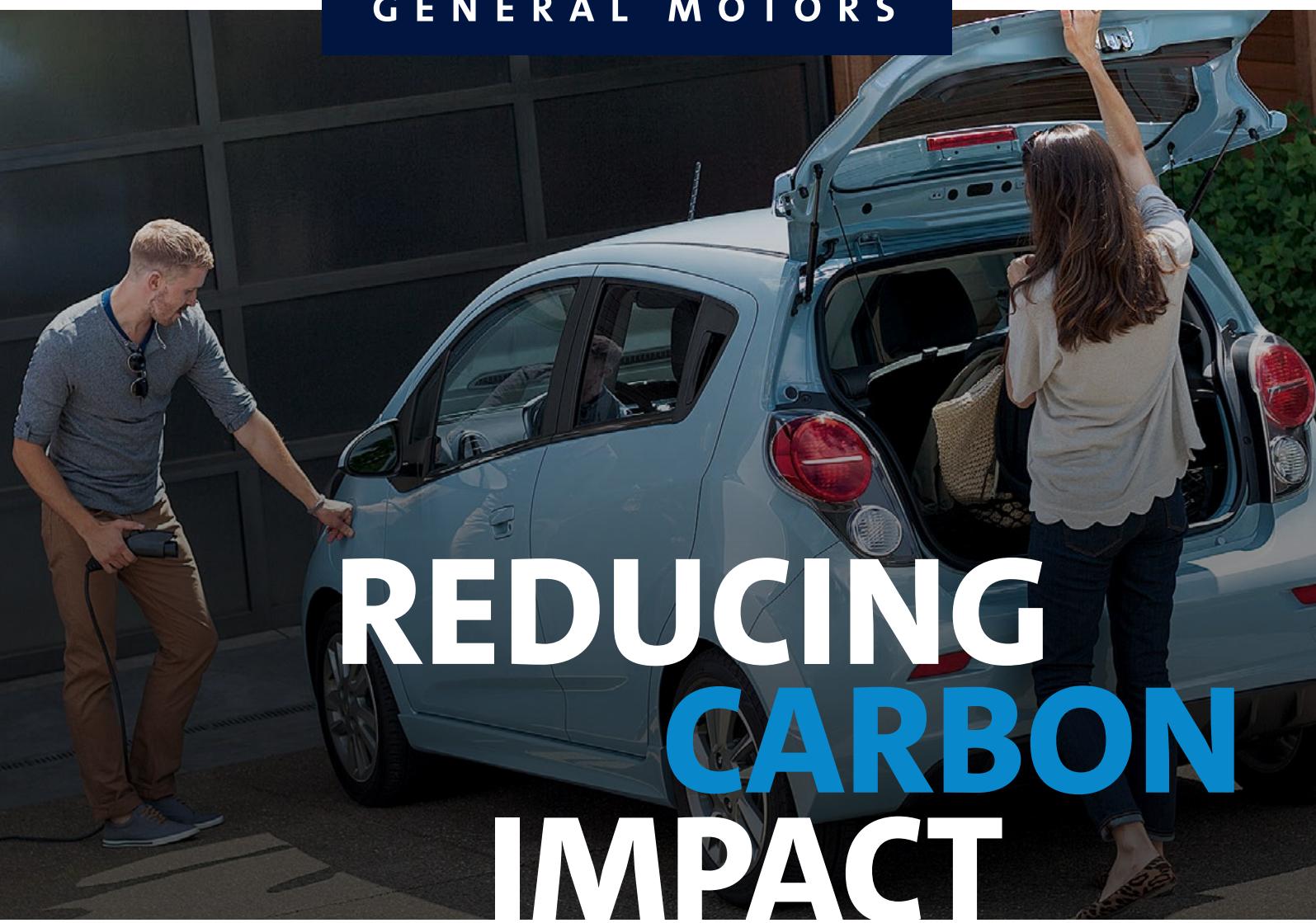
Among the key learnings from this most recent materiality assessment: Climate change-related topics emerged as a key area of concern. For the first time, the market development for electric vehicles (EV) and zero emission vehicles (ZEV) emerged as the top-ranked issue. Closely-related topics — technological innovation, vehicle fuel economy, CO2 emissions and climate change management — all ranked within the top 10 topics. Vehicle safety and customer trust and loyalty continued to be highly ranked topics, consistent with our 2014 and 2016 assessments.

More so than in past years, we observed a sizeable gap between the concerns of external and internal stakeholders. While internal stakeholders prioritized — and rightly so — issues such as quality management and customer trust and loyalty, external shareholders were more focused on climate change-related topics. We have weighted the responses of both stakeholder groups equally and the results of that weighting are reflected in the materiality matrix below.

While materiality is an important input into our reporting and disclosure strategy, it is not the only consideration. The content of this report also reflects the interests and needs of ESG ratings and rankings, as well as other nonfinancial disclosures. Our goal is for GM's sustainability report to satisfy the interests of stakeholders through coverage of our most material topics and to discuss other topics that are reflective of our corporate priorities and strategy.

## 2019 Materiality Matrix





# REDUCING CARBON IMPACT

## KEY TAKEAWAYS

- Climate change is incorporated into GM's risk management practices, which ensures that it is at the forefront of our daily decision-making.
- With emissions from the use of GM vehicles as the primary contributor to our carbon footprint, the most significant way we can make progress toward our zero-emissions vision is by transitioning to an electric vehicle portfolio.
- Over the past 18 months, we have made multimillion-dollar investments in EV manufacturing infrastructure, battery technology and the development of new EV models.
- We continue to address barriers to EV adoption by providing customers with easy access to charging stations, adding charging connectors at our own facilities and engaging with regulators on the need for a National Zero Emissions Vehicle program in the U.S.
- As GM accelerates an all-EV future, we are also accelerating our transition to renewable energy to power our operations.

### IN THIS SECTION:

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  - Managing Climate Change Risk
- 35 Vehicle Emissions**
  - Accelerating Our Electric Future
  - An All-New Modular EV Architecture
  - Investments to Scale EV Manufacturing
  - An Expanding EV Portfolio
  - Growing the EV Market and Charging Infrastructure
  - Looking Into Our EV Future
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- 42 Regulatory Engagement**
  - Global Fuel Economy and Emissions Regulation
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  - Energy Conservation



Chevrolet Bolt EV and Chevrolet Sonic vehicles are assembled Tuesday, March 19, 2019 at the General Motors Orion plant in Orion Township, Michigan.

## CLIMATE CHANGE MANAGEMENT

General Motors takes the challenge of climate change seriously and recognizes the role of the transportation sector in contributing to global greenhouse gas (GHG) emissions. This is a driving force behind our vision of a future with zero crashes, zero emissions and zero congestion.

We have consistently and publicly advocated for climate action and awareness, as well as policies putting a value on carbon. Our global commitment to improving fuel economy, reducing emissions and an all-electric, zero-emissions future is unwavering, regardless of the prevailing emissions standards in any region in which we operate.

In the U.S., ultimately we support modernizing the standards and creating one national program working with California and all stakeholders. This is why we've called for a U.S. National Zero Emissions Vehicle program. We intend to continue working with the California Air Resources Board, Environmental Protection Agency and the National Highway Traffic Safety Administration to improve fuel economy and our environment.

Our zero emissions future includes targeting Scope 3 emissions, which account for 98 percent of our carbon footprint. The top three sources of our Scope 3 emissions include vehicle emissions at 75 percent, supply chain emissions at 18 percent and logistics from inbound and outbound transportation of 2 percent. We also are targeting the emissions of our manufacturing operations, where we have committed to use 100 percent renewable energy by 2040, a decade earlier than our previous target. We are committed to transparent disclosure of our GHG emissions and actions we are taking to reduce them globally. We consistently reaffirm these points with our global employees and other stakeholders, including policymakers, regulators and shareholders.

**“ We have committed to use 100 percent renewable energy by 2040. ”**

## Managing Climate Change Risk

Climate change has been incorporated into our enterprise risk management process. This designation ensures that these issues are at the forefront of daily decision-making and that we manage them at the highest levels of the organization. As an example, a cross-functional climate change scenario workshop in 2018 helped us assess the risks, challenges and opportunities associated with various 2-degree warming scenarios. The workshop consisted of a three-step process including exploring uncertainties and defining success in the future world; answering questions to shape each scenario; and performing an analysis to determine what GM should be doing now to influence our future. In 2019, we conducted an EV workshop to update the strategy developed from the scenario analysis results into our short, medium, and long term planning.

These exercises helped clarify risks, as well as highlighting opportunities. The discussions underscored that consumers are increasingly aware of the need to limit global warming, and this awareness will increasingly influence their purchases and brand perceptions going forward. Climate change concerns also are likely to drive new policy and regulations, as well as political and economic pressures to reduce emissions throughout the manufacturing value chain. And, the exercises validated the need for GM to continue to develop and sustain a comprehensive climate change strategy that addresses the concerns of all stakeholders, while allowing the business to transform.

Today, as part of that strategy, we identify and monitor climate change risks on a regular basis and plan accordingly. The need for this constant process reflects the volatility of risk factors and dynamics that can quickly change scenarios. By institutionalizing climate change risks as part of our enterprise risk management function, GM is better positioned to anticipate, detect and, ultimately, plan around these changes.



## VEHICLE EMISSIONS

The CO2 emissions of our global vehicle fleet represent 75 percent of our carbon footprint today. We aim to take that percentage to zero so that our children will inherit a healthier planet.

Our journey to zero emissions entails a commitment to develop and deploy advanced technologies and to significantly enhance traditional ones. In the process, we help our customers save money over the life of their vehicle by using less fuel. We also look to ensure our long-term business success by complying with aggressive fuel economy and carbon-emissions regulations in markets around the world.

We know that customers want a no-compromise vehicle that is beautifully designed and fun to drive. They want a robust, reliable, fast-charging network that includes home, workplace and public solutions, and at least 300 miles of electric range on a full charge. Finally, they want pricing that is in line with internal combustion engine (ICE)-powered vehicles. Simply put, GM wants to put everyone in an electric vehicle (EV), and we have what it takes to do so. Not only will this deliver societal benefits through zero emissions, but also an amazing ownership experience for our customers.

## Accelerating Our Electric Future

Our global commitment to realize an all-electric, zero-emissions future — from battery chemistry and architecture to safety validation and infrastructure — requires unprecedented investment in people and resources. This is why we've announced our intent to allocate more than \$20 billion in capital and engineering resources to EV and autonomous vehicle (AV) programs between 2020 and 2025.

We want to get as many EVs on the road as possible. By mid-decade, our intent is to sell a million EVs per year in our two largest markets: North America and China, where we are working with our joint venture partners. GM's flexibility and engineering focus will drive the scale required to accelerate our path to zero emissions in a profitable and efficient way. In addition, we are leveraging existing

assets, such as production tools and body and paint shops, so that economies of scale can be realized with less capital and to further position the first generation of these products for profitability.

*“By mid-decade, our intent is to sell a million EVs per year in our two largest markets: North America and China.”*

Though many of the details about our electric future were revealed during EV Week in the first quarter of 2020, we've been preparing for this future for years. We have two decades of electrification knowledge and experience and have invested billions in research and development. This includes a \$1.5 billion investment three years ago at our Technical Center, where we have expanded and enhanced our state-of-the art battery testing lab, as well as other R&D facilities. The battery lab has been the largest and most advanced test lab in America for over a decade. The latest expansion brings the facility to more than 100,000 square feet and includes heavy and mild battery abuse test areas and new test chambers. Today, about 60 percent of the work at our Technical Center is focused on EV development compared with about 20 percent three years ago. These types of R&D investment are one reason that GM has more than 3,000 global patents related to electrification on file today.

## An All-New Modular EV Architecture

The heart of our EV strategy is a new, highly flexible global EV platform powered by our proprietary Ultium batteries. This platform and propulsion system can power affordable transportation, luxury vehicles, work trucks and high-performance machines. As a result, GM can compete for nearly every customer in the market. Vehicles built on this platform will be capable of offering:

- GM-estimated range of up to 400 miles on some models when fully charged.
- Acceleration of 0 to 60 mph in as little as 3.0 seconds.
- Battery energy storage ranging from 50 to 200 kWh.
- Level 2 and DC fast charging with the capability to charge over 100 miles of range in 10 minutes.
- Motors to support front-wheel, rear-wheel, all-wheel and performance all-wheel drive applications.

We are planning 19 different battery and drive unit configurations initially, including horizontal and vertical stacks to power vehicles ranging from affordable cars and crossovers to luxury SUVs and pickup trucks. To appreciate the ability to deliver this level of flexibility with just 19 EV propulsion combinations, consider that today we have 555 internal combustion powertrain combinations in production.

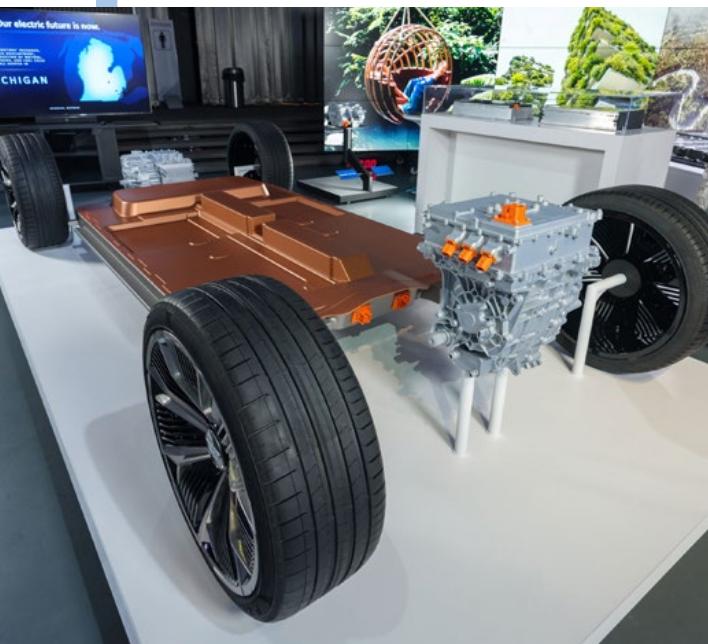
In North America, GM EVs will be powered by rectangular, pouch-style battery cells that are simple, lightweight and space-efficient. Our ability to stack the cells vertically is unique in the industry and allows for a flat cabin floor and more interior room than comparable EVs that use cylindrical battery packs. The pack also allows engineers to deliver vehicles with an optimized weight distribution and a low center of gravity to improve ride and handling.

GM's new Ultium batteries boast a proprietary, low-cost chemistry and an easy-to-manufacture design. These batteries will have the high-nickel and low-cobalt content — reduced by 70 percent — in a large format pouch cell, which requires less wiring than smaller cells. The built-in battery management system eliminates 80 percent of the battery pack's wiring as compared to those in the original Bolt EV. Our joint venture with LG Chem to develop and mass produce battery cells will drive cell costs below \$100 per kWh, and we expect ongoing technological and manufacturing breakthroughs to drive costs even lower.

GM is committed to

**100%**

recyclability and reuse  
of its EV batteries



*General Motors revealed its all-new modular platform and battery system, Ultium, at the Design Dome on the GM Tech Center campus in Warren, Michigan.*

## Keeping EV Safety Top-of-Mind

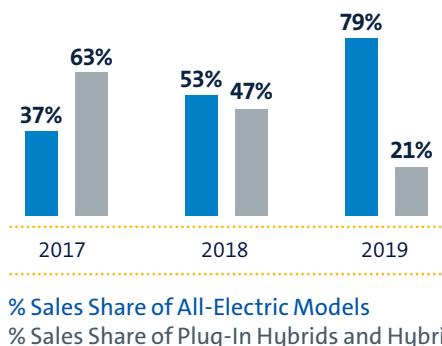
While we are working to achieve a vision of zero crashes through new collision avoidance and advanced driver assistance technologies, vehicles still need to protect occupants in a crash. GM has been a pioneer in the development of safe electric vehicles going back to EV1. We now have a dedicated high-voltage battery safety team with a key goal to protect the battery in a crash, much as we protect fuel systems in ICE-powered vehicles. Our batteries have been packaged below the seating area and are designed to be an integral part of the vehicle structure that helps to protect the occupants' safety cage in case of a crash. We have developed crash evaluations to assess the unique characteristics of a high-voltage battery system, and our process includes shutting down and isolating the electrical system in the event of a crash or flood to avoid shock risk. We have played key roles in leading standards committees on battery safety through organizations like the Society of Automotive Engineers and intend to remain an industry leader in this area.

## Investments to Scale EV Manufacturing

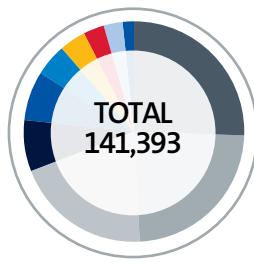
New vehicle programs require new manufacturing capabilities — a second area of focus and investment as we accelerate EV commercialization. With our partner LG Chem, we have announced plans to build a \$2.3 billion plant in Lordstown, Ohio, to mass produce battery cells for our fleet of EVs. The plant, which will be about the size of 30 football fields, will have an annual capacity of more than 30 gigawatt hours and room for expansion. The plant that will eventually provide 1,100 new jobs.

In Michigan, we are investing \$2.5 billion at two assembly plants. The first, Orion Township, will produce the Chevrolet Bolt EUV, which is designed and engineered off an advanced version of the award-winning Bolt EV architecture. Both models will be built side-by-side. The second plant, Detroit-Hamtramck, will be GM's first assembly plant that is 100 percent devoted to EV production. This site, which will employ 2,200 people, will produce a variety of all-electric trucks and SUVs, including the GMC Hummer EV and the Cruise Origin shared, electric, self-driving vehicle (please see our Transforming Mobility section on [page 70](#)). GM also will invest an additional \$800 million in supplier tooling and other projects related to the launch of the new electric trucks.

## All-Electric Models Represent a Rapidly Growing Share of GM's Electrified Vehicle Sales



## 2019 Global Electrification Portfolio



Baojun E100  
Baojun E200  
Chevrolet Bolt EV  
Cadillac XT5 Hybrid  
Buick Velite 6  
Chevrolet Volt  
Buick Regal HEV  
Opel Ampera-e  
Chevrolet Malibu Hybrid

Other:  
Buick Lacrosse with eAssist  
Buick LaCrosse HEV  
Chevrolet Silverado with eAssist  
GMC Sierra with eAssist  
Buick Velite 5

## EV Portfolio

**14**

global models with some form of electrification

**526,698**

metric tons of CO<sub>2</sub> emissions avoided

**1.29B**

gasoline miles displaced by GM BEVs



*Conceptual rendering of Ultium Cells LLC battery cell manufacturing facility in Lordstown, Ohio.*

REDUCING CARBON IMPACT

SUSTAINABILITY REPORT

GENERAL MOTORS

2019 SUSTAINABILITY REPORT

GENERAL MOTORS

2



Charging the Bolt EV at home

## An Expanding EV Portfolio

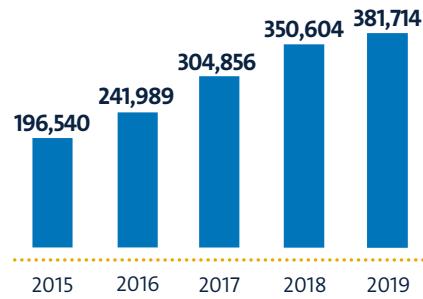
In recent years, our electric future has been best seen in the Chevrolet Bolt EV, which in model year 2020 is capable of driving an EPA-estimated 259 miles — a 21-mile increase from the previous model — on a single charge and is sold at an affordable price. Beginning in 2020, our EV portfolio will begin to expand with launches by Chevrolet, GMC and Buick. The next Chevrolet EV will be a new version of the Bolt EV, launching in 2021 as a 2022 model, followed by the 2022 Bolt EUV, launching Summer 2021. The Bolt EUV will be the first vehicle outside of the Cadillac brand to feature Super Cruise, the industry's first true hands-free driver assistance technology for the highway.

The Cruise Origin, a self-driving, electric shared vehicle, shown to the public in January 2020 in San Francisco, was the first product revealed using GM's third-generation EV platform and Ultium batteries. Later in 2020, GM plans to reveal the Cadillac Lyriq luxury SUV. Production of the Ultium-powered GMC Hummer EV is expected to begin in Fall 2021 at our Detroit-Hamtramck assembly plant.

Beyond North America, we also plan an acceleration of electrification technology in China, the world's largest EV market. We are applying a diverse range of new energy solutions for China's global and local brands, and the SAIC-GM joint venture will invest \$4.3 billion to introduce at least nine hybrid or electric models over the next five years. Our established capability in China for battery pack testing and assembly will support the steady rollout of new energy vehicles (NEVs) and help lower battery costs.

### U.S. Electrified Vehicles

Cumulative number of vehicles on the road in the U.S. with some form of electrification.



### Global Sales Volume of Alternative Drive Train Vehicles

**1,378,710**  
flexfuel vehicles

**111,950**  
EV vehicles

**29,443**  
hybrid vehicles

## The Product Cadence of Our Evolving EV Portfolio

GM is well on its way to an all-electric future, with a commitment to 20 new electric vehicles by 2023 and plans for additional models taking us beyond that. Our all-new modular platform removes significant physical constraints associated with conventional vehicles — no need to build around gas tanks, engines, radiator or exhaust pipes, for example. In the past, EV design placed great importance on differentiating the EV visually from its ICE counterparts. No more. The flexibility of this new platform frees us to proportion vehicles to meet unique brand personas and to design around vehicle and customer segment needs. Here are the EVs that each GM brand anticipates introducing.

### CADILLAC

GM's luxury brand plans to introduce four electric SUVs and one statement vehicle including:

- Cadillac Lyriq SUV, which is designed to hit the heart of the crossover market and meet the needs of customers around the world.
- A globally sized luxury three-row SUV that emphasizes interior space and cargo capability for the modern family.
- An SUV EV with attainable luxury — similar to today's Cadillac XT4 — and aimed at this key global growth segment.
- A full-size, three-row luxury SUV that builds on the DNA of the brand's highly successful Escalade.
- The Cadillac Celestiq Statement Vehicle that is an ultra-lux EV with bespoke, hand-assembled craftsmanship and project build rate of only 1.2 vehicles per day.

### GMC

Teased during the 2020 Super Bowl telecast, GMC is bringing back the iconic Hummer brand through two models:

- GMC Hummer EV truck that boasts performance of 1,000 horsepower, 11,500 lb-ft of torque and 0 to 60 mph acceleration in three seconds.
- GMC Hummer EV SUV builds off the GMC Hummer EV truck but will be configured as an off-road-capable SUV.



*Cadillac furthered its recent product blitz with the preview of the brand's first EV, the Lyriq. This will be the first model derived from GM's future EV platform.*

### CHEVROLET

Building on the success of the 2020 Chevrolet Bolt EV, which offers new front-end design and other exterior updates, the brand intends to launch:

- A mid-sized SUV targeted to U.S. customers who are looking for an electric option in this segment.
- Chevrolet BET Truck, which will be the brand's first electric full-size pickup, offering 400+ miles of range on a single charge.
- Chevrolet Bolt EUV that features a distinctive SUV design inspired by the Chevy Blazer and offers Super Cruise driver assistance — the first vehicle outside of Cadillac to do so.

### BUICK

Two new all-electric entries for the Buick portfolio will carry the new face of the brand:

- A Buick SUV will offer more conventional crossover proportion that maximizes interior space and cargo.
- A Buick CUV will feature more expressive proportion with a greater emphasis on form and athletic fashion.

In addition, the Cruise Origin autonomous vehicle will be the first production vehicle from our partnership with Honda. Read about the Origin on [page 74](#).



*GMC Hummer EV brings bold design, such as its open-air feature, and remarkable capability to the electrified vehicle space.*

## Growing the EV Market and Charging Infrastructure

Accelerating a zero-emissions future requires accelerating the development of a national EV charging infrastructure, the lack of which is a significant customer anxiety point today, slowing broad consumer acceptance of EVs. For the past decade, GM has been driving partnerships and collaborative efforts across a vast network of stakeholders to help stimulate the EV market. Today, our strategy to create a mass market for EVs is holistic, with a goal to make home, work and public charging quick, easy and efficient.

GM has developed a wide range of tools to help more than 200,000 Chevrolet Volt and Bolt EV customers find fast, affordable and convenient charging solutions. For the 80 percent of EV customers who charge at home, GM has partnered with Qmerit to provide easy access to accredited home EV charging station installers in their area. To help on-the-go customers locate one of the 40,000-plus charging stations for the Chevrolet Bolt EV, GM has created the Energy Assist feature as part of the myChevrolet mobile app. This app also integrates real-time data from the EVgo and ChargePoint networks to help customers locate open charging stations. Owners also can link their EVgo account to activate and pay for charging sessions at eligible stations right from the app.

The workplace is a primary charging source for many EV drivers, yet 900,000 out of 1 million EV drivers are not able to charge their vehicles at work. Availability of workplace chargers has been shown to encourage EV adoption, and drivers are six times more likely to drive an EV when charging capabilities are provided at their workplace. We are committed to making our own facilities and campuses as EV-accessible as possible. To this end, we are adding 3,500 new charging connectors throughout our U.S. and Canadian



*General Motors will collaborate with EVgo, ChargePoint and EV Connect to enhance the charging experience for customers.*

facilities. This will triple the number of charging stations that GM currently provides. GM will prioritize charging installation sites based on employee need and will work with charging infrastructure companies to begin installing the charging locations starting in late 2020. GM employees will have access to Level 2 charging, ideal for efficiently charging EVs throughout a workday. Level 2 chargers can charge the current Chevrolet Bolt EV model up to a speed of 25 miles every hour.

## CHARGING INFRASTRUCTURE GROWTH

**39%**

of consumers say top barrier to ownership is public charging stations not easy to find

**78%**

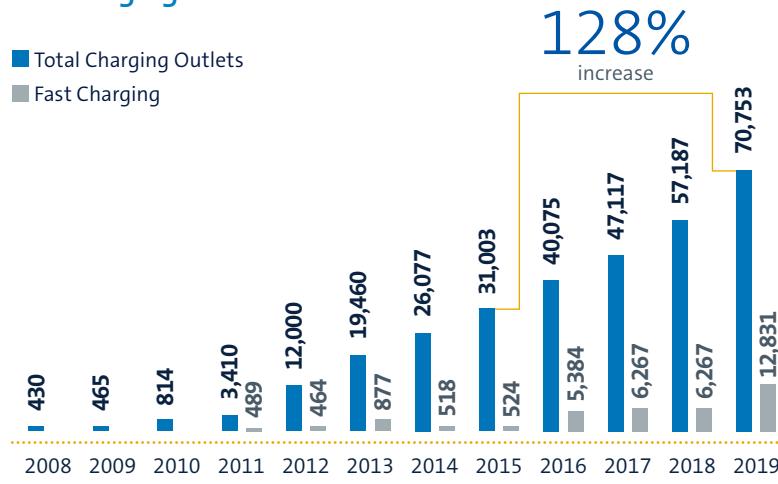
Bolt EV owners charge their vehicles at home

**128%**

increase in public EV charging stations 2015–2019

### EV Charging Infrastructure

■ Total Charging Outlets  
■ Fast Charging



## Looking Into Our EV Future

Though the current level of EV innovation at GM is intense, there is room for more in the future. Already, we are envisioning a future of zero cobalt and zero nickel batteries. We are working on cathodes that have zero cobalt in order to lower costs and solve potential supply constraints. Similarly, we are working on cathodes that have zero nickel, the second most expensive cathode material. Maven deployed Bolt EVs in a high-mileage use-case, with vehicles driving an average of 40,000 miles per year within urban environments. This experience provided valuable data to support the strength and high-mileage capability of the Bolt EV batteries. With our next generation of proprietary zeolite technology, the potential for million-mile battery life for shared mobility usage models is real. Finally, our battery R&D team is innovating across the gamut to give customers more range at lower cost. Already, we are developing cells that are almost twice the energy density of the Ultium battery cell and that could enable 500- to 600-mile ranges. This drive for greater range and lower cost is the key to making EVs for everyone and achieving our vision of a zero-emissions future.



Ultium, GM's all-new modular platform and battery system.

## Improving Conventional Vehicle Efficiency

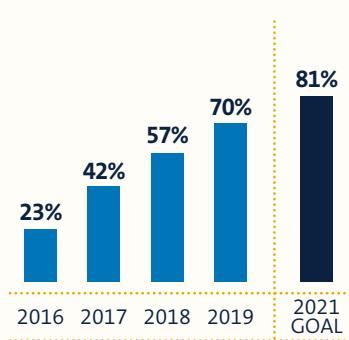
EVs are GM's future. As we move closer to our vision of an all-electric portfolio, we also are committed in the nearer term to improving the efficiency of vehicles that rely on the internal combustion engine. Continual improvements in vehicle engine and transmission efficiency, as well as vehicle weight, are helping us to eliminate excess material use in manufacturing, while reducing fuel use and costs for customers. Innovations around lightweight materials also further our EV development work.

As an example, across our four largest markets — the U.S., China, Brazil and Canada, over 75 percent of our 2019 volume contained stop-start technology, enabling the vehicle's engine to turn off when the car is stopped or idled. These engines provide a fuel economy benefit of between approximately 3 to 5 percent, significantly decreasing CO<sub>2</sub> emissions for consumers who face extended idle times. In the U.S., to date, stop-start engine technology has saved GM customers 293 million gallons of fuel and 2.61 million metric tons of CO<sub>2</sub> emissions over the lifetime operation of their vehicles.

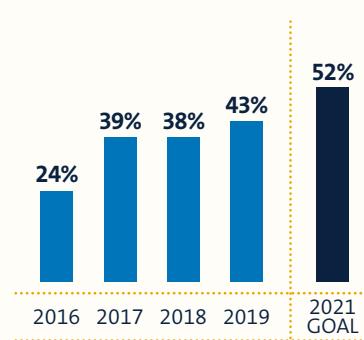
### EXPANSION OF FUEL-SAVING TECHNOLOGIES IN CONVENTIONAL VEHICLES

Percent of Total U.S. Volume

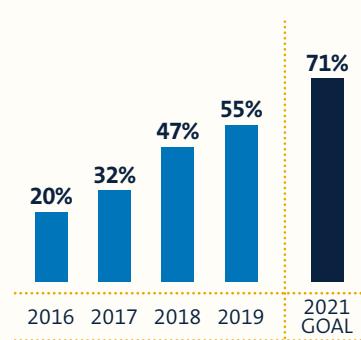
#### Stop-Start Technology\*



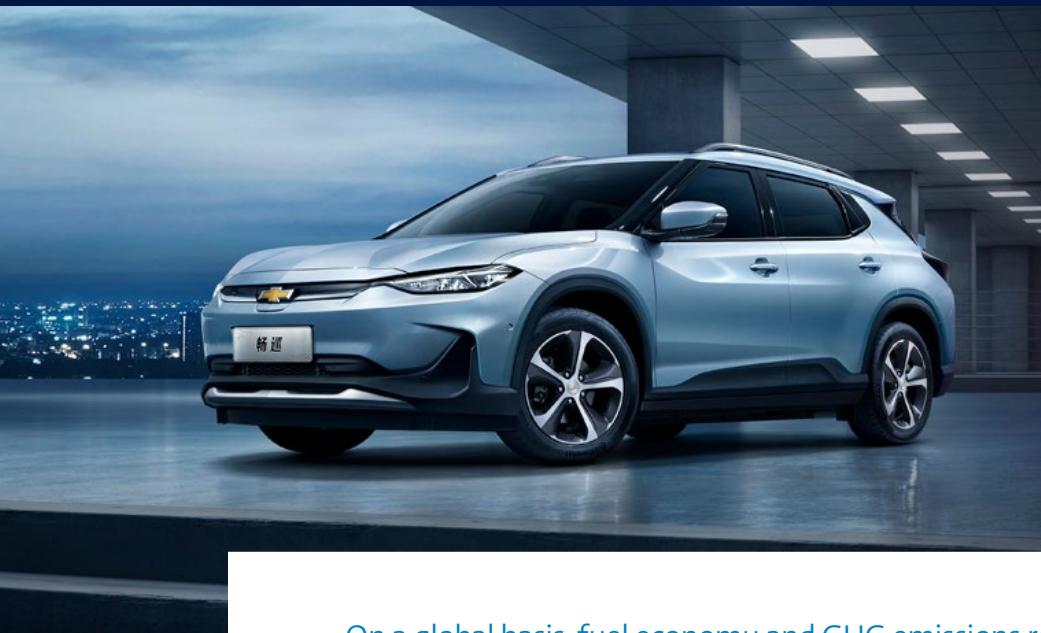
#### Downsized-Turbo Engines\*



#### Advanced Transmissions\*



\*To improve the consistency and quality of our long-term advanced technology data reporting, we are now using model year rather than calendar year data.



← The Chevrolet Menlo has a constant-speed range of up to 410 kilometers under New European Driving Cycle (NEDC) conditions on a single charge.

## REGULATORY ENGAGEMENT

On a global basis, fuel economy and GHG emissions remain top-of-mind priorities for the transportation sector and apply to all GM products globally.

Emission requirements have become more stringent as a result of lower emissions standards and new on-board diagnostic requirements, which have come into force in many markets around the world, driven by policy requirements such as air quality, energy security and climate change.

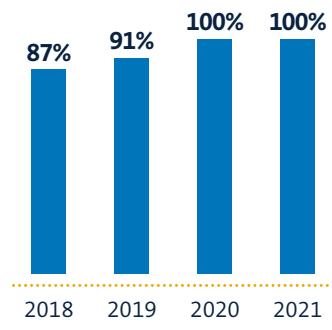
The same transformative changes we're responding to as a company also have implications for regulations like the Corporate Average Fuel Economy (CAFE) standards in the United States. For example, when the current CAFE standards were first proposed and finalized in 2012, shared mobility was in its earliest stages, and autonomous vehicles did not even exist. We want to be sure that the regulations accurately account for the current and likely future state of our industry. In addition, we have recommended that EV incentives continue and that federal regulations be harmonized between NHTSA and the EPA, as we work toward a single national standard with all stakeholders, including California. For example, we believe that focusing on interim technologies such as hybrids and multiple solutions for multiple states slows the adoption of full battery electric vehicles. Common standards will allow us to advance innovation today and better prepare for the future.

In this spirit, we have called for a U.S. National Zero Emissions Vehicle (NZEV) program to help the U.S. move faster toward an all-electric, zero-emissions future. This move would create jobs, encourage innovation, improve the environment and make EVs more affordable for more customers. We believe that the most effective way to attain this goal is with an NZEV program based on the existing ZEV framework, supported by complementary policies. Such a program would be administered nationally by the EPA and represents a more harmonized solution than individual state-based programs.

An NZEV program would establish requirements for automakers to incorporate ZEVs as an increasing part of their portfolios, up to 25 percent by 2030, put at least 7 million long-range EVs on the road over that decade and yield a cumulative incremental reduction of 375 million tons of CO<sub>2</sub> emissions. It would also establish a Zero Emissions Task Force to promote complementary policies, such as charging infrastructure investments, renewed federal incentives for EV purchasing and regulatory incentives to support U.S. battery suppliers. The result of such a program would be to position the U.S. as a leader in electrification. GM will continue to have conversations with regulators in California and the federal government to help speed EV adoption and be ready for customers with the EVs they desire. Because broad consumer acceptance of EVs is critical, we also support continued incentives to make EVs more affordable for more customers.

### Low-GWP Refrigerant

Share of Total U.S. Volume



The low global warming potential (GWP) refrigerant R-1234yf has over 350 times less GWP than the refrigerant it replaces. Today, 35 percent of our global vehicles use R-1234yf. In the U.S., 88 percent of all light-duty vehicles used this refrigerant in the 2019 model year, and we are on a path for 100 percent to do so by model year 2021.

## Global Fuel Economy and Emissions Regulation

Many countries around the world are adopting regulatory standards similar to those of the U.S., which are based on a footprint metric or size of the vehicle, or those of the EU, which are weight-based. In many cases, there are regulatory inconsistencies when fuel-saving solutions under one system do not translate to another. Though harmonized standards among countries are in the best interests of our customers and the environment, we realize development and acceptance can take years. That's why we favor mutual recognition agreements, a practice by which two or more markets agree to recognize each other's standards and eliminate costly and nonbeneficial redundancies.

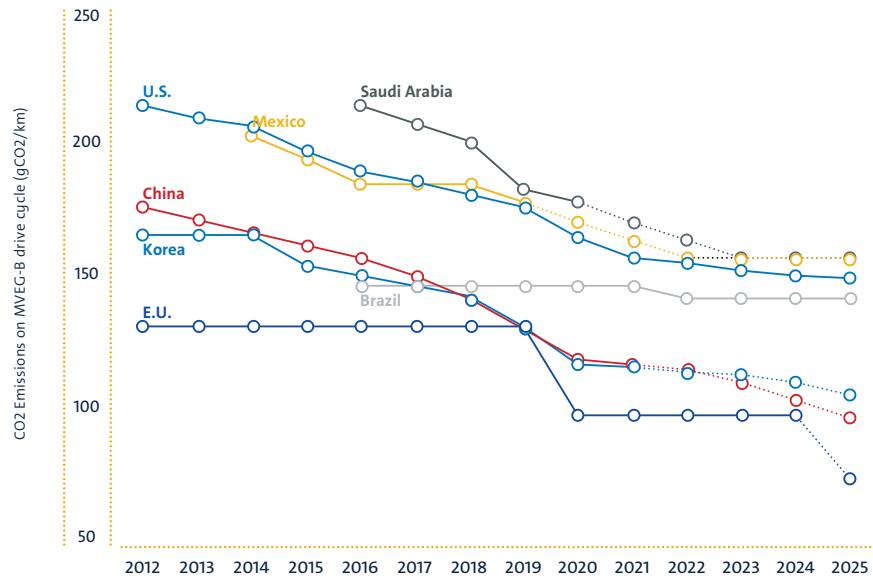
China implemented the China 5 emission standard nationwide in 2017, which is more stringent than the previous program at every level. The next round of standards, known as China 6, is expected to roll out nationally as early as 2021. China 6 combines elements of both European and U.S. standards, including stronger emission requirements and extended time and mileage periods over which manufacturers are responsible for a vehicle's emission performance. We welcomed these changes — in fact, GM gave input as the new standards were being drafted, sharing best practices from our experiences in North America. Another important regulation in China is the NEV mandate, which allows manufacturers of passenger cars to earn credits for producing a certain volume of hybrid, battery electric and fuel cell vehicles. This policy, combined with consumer subsidies for purchasing NEVs, has made China an important market for our electrification solutions.

We are also focused on emerging markets, where we expect to realize a significant amount of business growth in coming years. In these markets, we want to find affordable product solutions for our customers, who generally have lower average household incomes, while meeting fuel economy

mandates and regulations that are often aligned with those of more developed countries.

Within GM, we have institutionalized extensive governance processes that predict, plan, measure and assess our fleet's fuel economy and emissions performance according to established government test procedures on a dynamic and country-by-country basis. We dedicate significant resources and use a complex algorithm to calculate the fuel economy of dozens of models sold across developed markets with increasingly stringent regulations, as well as emerging markets that are adopting similar regulations at a rapid pace. These calculations and the subsequent plans around them are an intrinsic part of our business that impacts nearly every operational function, from product development through delivery, on a daily basis.

### Global Fuel Economy/CO2 Outlook

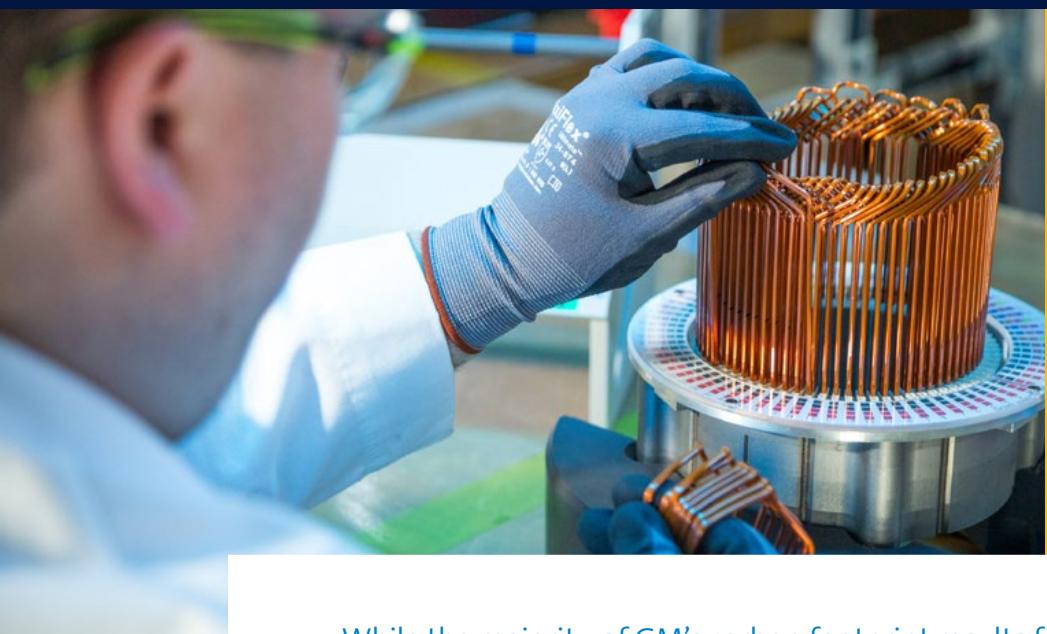


*The increase in the U.S. average reflects the ongoing market shift away from cars to trucks and SUVs, driven in part by relatively low gas prices and, in 2019, strong economic conditions. Across the markets in the table at left, GM's three largest, volume-weighted average emissions continue to fall.*

### Fleet Fuel Efficiency by Region

Sales-weighted average passenger fleet fuel economy

	2016	2017	2018	2019
USA gCO2/km	197	191	189	193
China L/km	159	151	152	144
Brazil gCO2/km	123	124	122	121
Volume-weighted average emissions across all three regions (g/km)	173.1	165.7	165.7	164.2



← An electric motor stator is assembled by hand during pre-production at General Motors Global Propulsion Systems Center in Pontiac, Michigan.

## OPERATIONAL EMISSIONS

While the majority of GM's carbon footprint results from the use of our vehicles, a category of Scope 3 emissions, the scale of our manufacturing operations also presents significant opportunities for improvement. This has been an area of continued focus over the past decade, during which we have accomplished much.

GM was proud to reach our manufacturing carbon intensity goal — a 20 percent reduction in metric tons of CO<sub>2</sub>e per vehicle manufactured between 2010 and 2020 — three years ahead of schedule. After achieving this goal in 2017, we got to work developing an even more ambitious target: to reduce absolute Scope 1 and 2 GHG (CO<sub>2</sub>e) emissions by 31 percent by 2030 compared to a 2010 baseline. This goal is consistent with the level of decarbonization required by the

science-based target initiative methodology to limit warming to less than 2°C compared to preindustrial temperatures by 2050. Energy efficiency improvements and our RE100 pledge — a commitment to use 100 percent renewable energy in our operations — helped us reach our initial carbon goal. As we look toward 2030, we intend to build on these actions to help us reach our higher aspiration of absolute emissions reduction.

### OPERATIONAL COMMITMENTS

#### Reduce Energy Intensity by 20 Percent MWh/vehicle



Production volume in 2019 was 13% lower than 2018 due to market conditions and work stoppage in the U.S. Although energy conservation continued at the same pace, the intensity increased by 5%. We doubled our Energy Performance Contracting development in 2019 to maximize absolute energy reductions and will continue in 2020.

#### Absolute Reduction of Carbon by 31 Percent GHG, Scope 1&2 Market Based, million metric tons

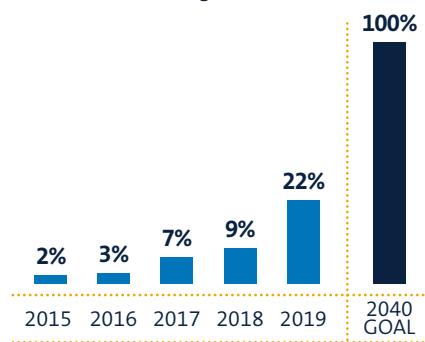


CO<sub>2</sub>e from operations reduced on an absolute basis in 2019 by 6% due to increased energy reduction, renewable energy, and lower production.



## Renewable Energy

Renewable Energy as a Percentage of Global Electricity Needs



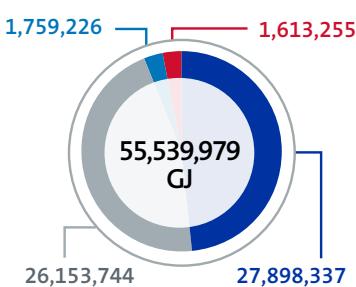
Just as we are accelerating our all-electric vehicle future, we also are accelerating our renewable energy commitments. In 2016, GM committed to sourcing 100 percent of our global electricity demand from renewable sources by 2050. Fast forward three years and we have renewable energy contracts that put our capacity to 24 percent renewable use.

Energy (subject to environmental review). The commitment is made possible through the Tennessee Valley Authority's Green Invest program, which is the federal electric utility's green tariff solution. At its completion, the project is expected to increase GM's use of renewable energy to more than 50 percent of its sourced electricity by 2023.

In early 2020, in response to the need to accelerate efforts to address climate change, we pulled forward our 100 percent global renewable energy commitment to 2040 with interim goals of achieving 60 percent globally by 2025 and 100 percent of U.S. sites by 2030. In the second quarter of 2020, we executed our largest solar project of 300 MW in Michigan through a green tariff agreement, making all GM sites in Southeast Michigan served by DTE on renewable power, including our global headquarters in Detroit and Warren Technical Center. We finished 2019 with 23 sites completely powered by renewable energy, including our Arlington, Texas, assembly plant that is completely powered by wind energy.

We are making significant progress in the use of renewable energy to power our operations, combining physical and virtual power purchase agreements and onsite renewable energy projects, such as solar arrays and landfill gas projects. GM is also a member of RE100, a global collaborative initiative backed by The Climate Group in partnership with CDP. RE100 brings together companies that have made commitments to use 100 percent renewable energy in their operations to share best practices and demonstrate the increased demand for clean power. GM is one of only three automakers, and the only one in North America, that has made the RE100 pledge.

## Energy Consumption by Source



- Fuel Consumption from Non-Renewable Sources (including heating)
- Electricity Consumption (including cooling)
- Fuel Consumption from Renewable Sources (including heating)
- Steam Consumption

By late 2022, our largest facility in North America, Spring Hill Manufacturing, is expected to be powered by 100 percent solar energy. This will be made possible through a green tariff agreement with the Tennessee Valley Authority, which is expected to supply up to 100 megawatts of solar energy per year. The energy will be supplied by a solar farm in Lowndes County, Mississippi, currently under development by Origis

In recognition of our efforts, GM received the 2019 Green Power Leadership Award from the U.S. Environmental Protection Agency, one of only seven organizations nationwide to receive the award. The awards recognize companies for their commitment and contribution to helping advance the development of the nation's voluntary green power market.

# Our Renewable Energy (RE) Journey

Our commitment to renewable energy use began more than two decades ago and will culminate by 2040 when we source 100 percent renewable energy to meet all global electricity needs.



## 2010

- Ohio, Michigan and China — First workplace installations of solar charging for electric vehicles
- 20 KW each



## 2015

- Changwon, Korea — First RE project in Asia
- 11.5 MW



## 2016

- Shanghai, China — First RE project in China
- 24 MW

## 2040

100 percent electricity sourced from RE globally



## 1995

- Toledo, Ohio — First RE investment
- 2.5 MW of landfill



## 2008

- Zaragoza, Spain — The largest rooftop installation in the world at that time
- 11.7 MW of solar



## 2014

- Orion, Michigan — First onsite generation of electricity via landfill gas
- 8 MW



## 2014

- Mexico and Joinville, Brazil — First RE wind project and first solar installation in South America
- 34 MW and 340 KW, respectively



## 2017

- St. Catherine's, Ontario — Largest RE project to date in Canada and first to use waste heat for cogeneration
- 6.4 MW



## 2017

- Ohio and Indiana — All operations achieve 100% RE
- 200 MW



## 2018

- Flint, Michigan — First green tariff project
- 40 MW



## 2022

- Springhill, Tennessee — Expected completion of green tariff project, which will push us to 50 percent RE use in the U.S.
- 100 MW

## 2030

100 percent electricity sourced from RE in U.S.



## 2005

- First RE project in Mexico
- 17 MW of hydroelectric

# 9 Years 1

U.S. EPA Energy Star® Partner of the Year — Sustained Excellence in Energy Management

# 8

assembly plant U.S. EPA Energy Star-certified by Natural Resources Canada

# 2

buildings U.S. EPA Energy Star-certified facilities U.S. EPA Energy Star Challenge for Industry

## Energy Conservation

By reducing energy use overall, there will be fewer electricity needs to be covered by renewable sources. GM uses an energy management system (EMS) and performance contracts to achieve energy-reduction goals. In 2019, 27 GM U.S. manufacturing facilities, or more than 90 percent of our U.S. manufacturing footprint, implemented the U.S. Department of Energy's (DOE) [50001 Ready](#) program. This program is an application tool through which 25 tasks are measured to demonstrate an effective EMS. Upon completion, facilities can self-attest to the structure of ISO 5001, a voluntary global standard. GM engaged with DOE to train the GM Energy team, along with suppliers and other companies on the 50001 Ready process. GM has implemented 50001 Ready at more facilities than any other participating company. We plan to expand this program to all of our manufacturing facilities globally in order to continuously monitor and improve our EMS.

GM also uses a variety of Energy Star initiatives as a framework for charting our progress in building energy efficiency. Energy Star's Building Portfolio Manager (BPM) allows us to benchmark our progress and make continuous improvements. BPM integrates with our utility bill management system, sending an automated monthly analysis of building scores to evaluate building performance.

## Energy Star Sustained Excellence Award

GM was awarded the 2020 Energy Star® Partner of the Year — Sustained Excellence Award, the highest honor among ENERGY STAR awards. EPA presents this award to partners that have already received ENERGY STAR Partner of the Year recognition for a minimum of two consecutive years and have gone above and beyond the criteria needed to qualify for recognition. We encourage our suppliers to align with GM's goals and processes toward energy efficiency and CO2 reduction.

## CARBON CHALLENGES FOR THE ROAD AHEAD

- Harmonizing government fuel economy regulation at the national and global level
- Increasing consumer acceptance and adoption of EVs
- Achieving price and range parity between EVs and ICE vehicles, especially in periods of low oil prices
- Establishing collaborative and coordinated public/private partnerships to oversee the buildup of charging infrastructure
- Ensuring adequate capital to continue renewable energy investments



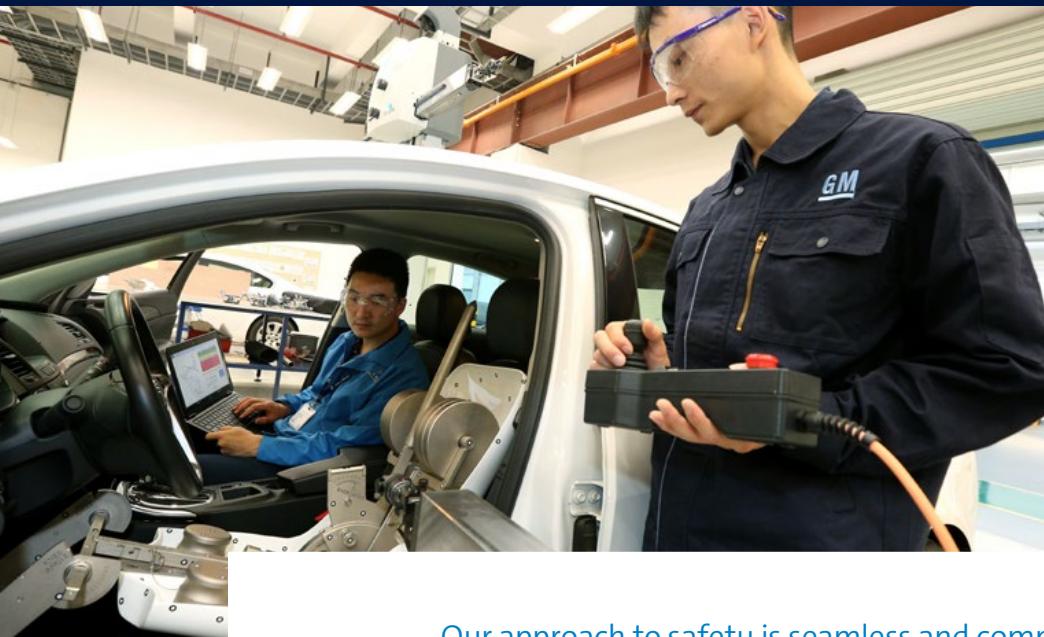
# KEEPING PEOPLE SAFE

## KEY TAKEAWAYS

- Safety is the responsibility of everyone at GM. The Speak Up For Safety program gives employees, suppliers and dealers an easy way to report potential vehicle safety issues.
- Advanced driver assistance systems, such as Lane Departure Warning and Lane Keep Assist, are increasing vehicle safety by automating error-prone driving tasks.
- GM invests in partnerships and initiatives to decrease driver distraction and educate drivers, especially new drivers, on the many hazards they face when they get behind the wheel.
- Achieving zero injuries includes protecting everyone who works at GM facilities. We do this with a safety strategy that focuses on safety culture, knowledge, management systems, data and risk mitigation.

### IN THIS SECTION:

- 49 Vehicle Safety**
  - Advanced Safety Technology Development
  - Driver Behavior
- 54 Workplace Safety**
  - Global Workplace Safety Strategy



## VEHICLE SAFETY

Our approach to safety is seamless and comprehensive: The best way to produce safe vehicles, free of defects, is in workplaces where employees are accountable for their personal safety and the safety of those around them.

Across the company, we have made both workplace and product safety everyone's responsibility — from our vehicles to corporate hallways to factory floors. Today, our decision-making process for safety issues includes executives at the highest levels of the company and engaged employees at every level to identify potential vehicle safety issues. Our Vice President of Global Vehicle Safety, in addition to leading our product safety organization, is accountable for developing GM's vehicle safety systems, confirming and validating our vehicle safety performance, identifying emerging issues and conducting post-sale safety activities, including recalls.

Our Global Product Development organization includes a robust team of internal product investigators in North America who help identify and quickly resolve potential vehicle safety issues and safety forensic engineers who are responsible for early identification of potential vehicle safety issues. Meanwhile, Global Vehicle Engineering improves cross-system integration and addresses functional safety and compliance in the vehicle development process. We also employ a data analytics team to identify potential vehicle safety issues. This team merges multiple inputs — such as Speak Up For Safety (SUFS) submissions and dealer service records — to build a unique, comprehensive database. Statistical analysis and modeling identify potential issues early by linking perceived disparate issues.

Programs are in place to support a culture where safety is everyone's responsibility. The Employee Safety Concerns Process provides a structure for employees at manufacturing sites to report potential workplace safety issues. Our SUFS program, meanwhile, is designed to give employees, suppliers and dealers an easy, consistent and unfiltered way to report potential vehicle safety issues. Through a toll-free phone number, a smartphone app, email or the SUFS website, submitters can report any potential vehicle safety risks and suggest improvements. From there, our dedicated safety team funnels employee concerns to the appropriate departments. Individuals track their submission through the review and decision process so they can learn more about the process and understand the status of their concern. Since the program's inception, more than 29,500 concerns and/or suggestions have been logged globally by employees and dealers. To reinforce a sense of personal accountability, safety is a part of employees' performance criteria for compensation.

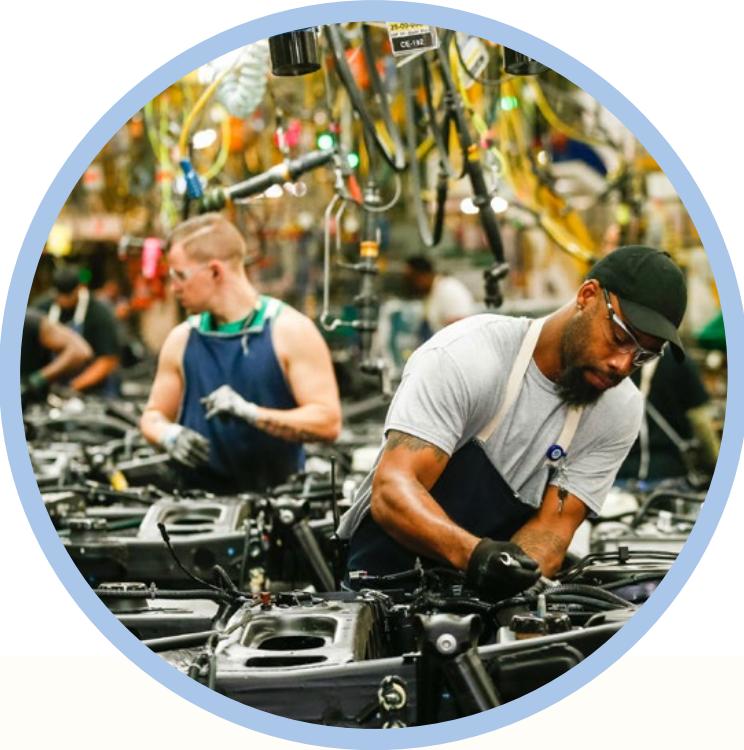
Speak Up For Safety submissions

**29,562**  
total since inception in 2015

**4,755**  
in 2019

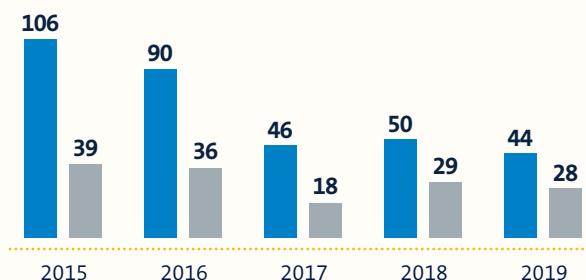
By building a culture of safety, we attempt to find issues sooner and reduce the number of impacted vehicles.

Externally, GM maintains an open dialogue with the National Highway Traffic Safety Administration (NHTSA), including monthly meetings with senior agency officials, with expedited discussions as needed, covering field investigations, safety recalls and other issues. GM also participates in periodic meetings with NHTSA and other stakeholders to advance safety discussions that benefit the industry as a whole.



## GM Safety & Noncompliance Recalls

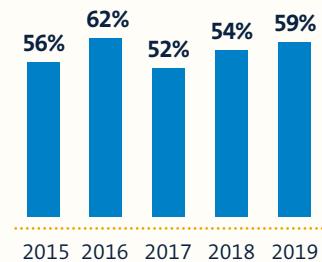
Number of recalls



- Global
- North America

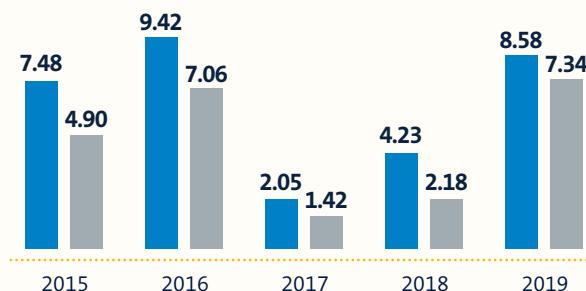
## U.S. Recalls

Involving fewer than 10,000 vehicles



## GM Safety & Noncompliance Recalls

Vehicle volume in millions



## New Car Assessment Program Top Performing Models

Models with 5-Star overall vehicle score or top overall rating

51%  
United States

100%  
Australasia

67%  
South Korea

83%  
China

50%  
Asean Region



2020 GMC Yukon XL Denali

## Advanced Safety Technology Development

An aspect of vehicle safety that is quickly growing in importance is the safety of advanced driver assistance systems and automated technology in vehicles, a critical part of our vision to achieve zero crashes. While fully autonomous vehicles — those requiring no input from a human driver — are not yet in use on public roads, advanced safety innovations available today represent first steps on the road to autonomous driving. Lane Departure Warning can alert drivers

when they cross a detected lane marker when driving. Lane Keep Assist takes this a step further by providing gentle steering wheel turns to help keep a vehicle from inadvertently leaving its lane. Through building block changes such as these, vehicles are increasingly aiding with routine driving tasks. This gradual transition will not only help improve safety — we believe it will increase drivers' comfort with self-driving technology.

## Global Deployment of Advanced Safety Technologies

Number of models with these technologies available or as standard equipment out of 76 total models

**56**  
Forward Collision Alert

**22**  
Front Pedestrian Braking

**49**  
Side Blind Zone Alert

**37**  
Forward Automatic Braking

**29**  
Adaptive Cruise Control

**36**  
Lane Keep Assist with  
Lane Departure Warning

**42**  
Rear Cross Traffic Alert

**Enhanced Automatic  
Emergency Braking**  
Low Speed Forward Automatic  
Emergency Braking  
Automatic Emergency Braking

**27**  
Safety Alert Seat

**27**  
Lane Departure Warning

**20**  
Surround Vision

## Validating Advanced Safety Features in GM Vehicles

GM is hard at work making advanced safety features, such as Forward Collision Alert and Automatic Emergency Braking, standard in many of our new vehicles. So it's worth asking the question: are these features working the way we intend by preventing specific types of collisions? Results of a study that GM recently conducted with the University of Michigan Transportation Research Institute suggest that the answer is a resounding "yes".

UMTRI examined more than 3.7 million vehicles across 20 different 2013–2017 GM models. They used police report data from 10 state crash databases to evaluate the effectiveness of 15 active safety and advanced headlighting systems. After comparing the crash instances involving vehicles with and without active safety features, researchers found that many of GM's active safety features are statistically significant in reducing the number of crashes on the road.

As UMTRI Research Associate Professor Carol Flannagan explains, "The more automated a vehicle's system, the better it worked. We see an improvement in effectiveness as you go down towards greater automation."

"This study is groundbreaking in terms of the range of vehicles and safety features examined," says Raymond Kiefer, GM Active Safety Technical Fellow. "The results show that the GM safety systems evaluated are addressing a wide range of common crashes that cause a staggering amount of injuries, property damage and cost to our customers and society. We're well on our way to our zero crashes vision with technology we have out in the field today."

*"We're well on our way to our zero crashes vision with technology we have out in the field today."*

RAYMOND KIEFER  
GM ACTIVE SAFETY  
TECHNICAL FELLOW

### NIGHTTIME ANIMAL/PEDESTRIAN/BICYCLIST CRASHES

 **21%**

High-intensity  
discharge (HID) headlights

 **35%**

IntelliBeam

### REAR-END STRIKING CRASHES

 **21%**

Forward Collision Alert

 **46%**

Forward Automatic Braking with  
Forward Collision Alert

 **21%**

Rear Vision Camera

 **38%**

Rear Park Assist

### LANE DEPARTURE CRASHES

 **20%**

Lane Keep Assist with  
Lane Departure Warning

 **26%**

Lane Change Alert with Side  
Blind Zone Alert

### BACKING CRASHES

 **52%**

Rear Cross Traffic Alert  
with Rear Vision Camera  
and Rear Park Assist

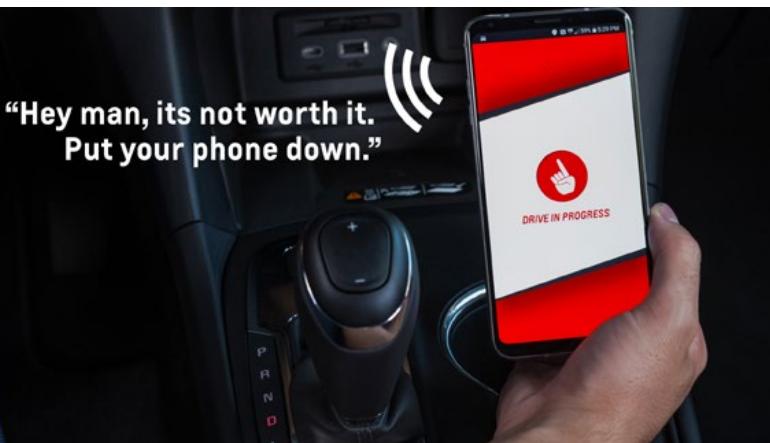
 **81%**

Reverse Automatic Braking,  
Rear Cross Traffic Alert with  
Rear Vision Camera and  
Rear Park Assist

## Driver Behavior

At the same time, GM is aware of the need to increase public awareness of the risks associated with drivers becoming overly reliant on today's vehicles to do the job of keeping them safe. Feature enhancements and increasingly sophisticated safety technologies are no replacement for safe, smart driving behavior. We continue to invest in partnerships and initiatives to decrease driver distraction and educate drivers, especially new drivers, on the many hazards that remain when they get behind the wheel. Two major focus areas of our programs are research that involves enhancing awareness of distracted driving and positively changing driver behavior to help minimize the risks from distraction. Current partnerships and initiatives include:

- **DoSomething.org**, with whom we partnered to launch Crash Text Dummy, a social change campaign designed to decrease the number of crashes related to texting and driving. The second campaign of the partnership is Brake It Down, designed to rally young people to share antispeeding tactics with friends.
- **The PEERS Foundation**, for whom we upgraded the Augmented Reality Distracted Driving Education Simulator (ARDDES). ARDDES uses augmented reality in a real vehicle to simulate the driving experience.
- **Academic institutions**, such as the Virginia Tech Transportation Institute and the University of Michigan Transportation Research Institute, whom we work with to increase understanding of driver behaviors and how to effectively measure distraction in a lab environment. The results of these collaborations have informed GM's safety policies, infotainment and driver assistance safety innovations. Virginia Tech assisted in the development of GM's new driver distraction lab, which is currently being used to develop and validate the next generation of infotainment features.
- **The Call Me Out smartphone app**, launched by Chevrolet and available to anyone with an Android phone. The app reminds new and experienced drivers to keep their eyes on the road and put their phones down while they are driving. Users are encouraged to invite friends and family to "call me out" and record a positive message to remind them to keep their hands off their phones and on the wheel.



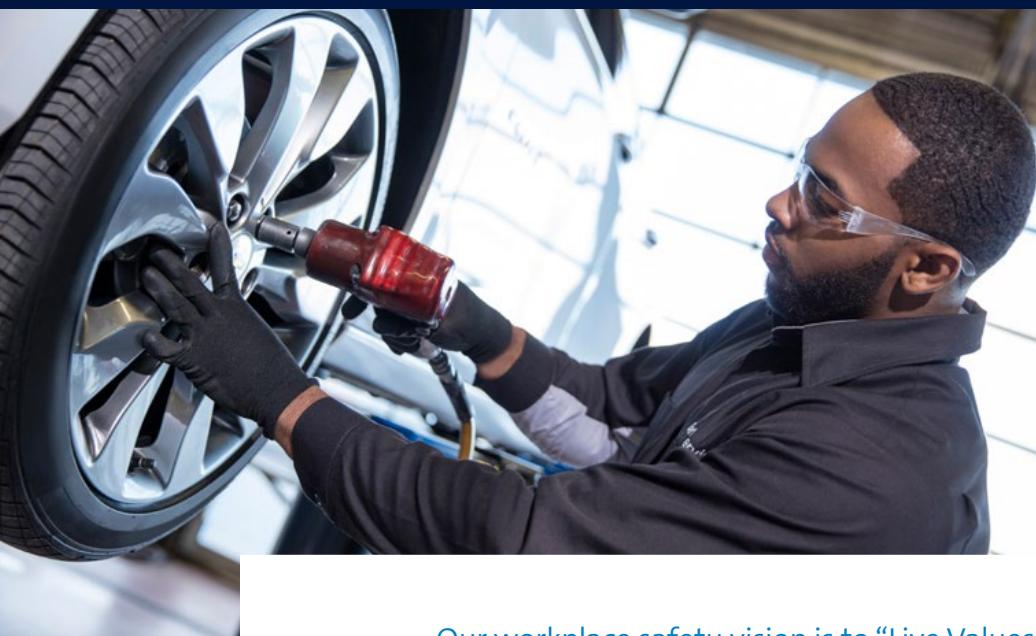
## Use Big Data to Keep Drivers Safe

Imagine the volume of data that GM collects every day. Across the world, we gather chats through our call centers, conversations with OnStar representatives, logs when people bring their cars into dealerships and information from customer surveys. All of this information translates into more than a billion rows of data. A small fraction of this data — approximately 1 percent — contains critical insights about possible emerging safety issues. If we sort, analyze and process data in the proper way, we can access this information, helping to eliminate safety issues and potentially saving lives.

To accomplish this task, a collaborative GM team recently developed Rapid Algorithm Prototyping for Threat Recognition (RAPTR), a software tool that uses advanced machine learning and natural language processing to take unstructured text data from call center logs, customer feedback, warranty claims and surveys to find and focus on potential safety issues through our Safety and Field Investigation (SFI) process.

For example, RAPTR can take text phrases like "I keep on having issues pairing my iPhone with my Yukon. My phone dies" and "My G6's seat belts won't retract, I could die in an accident" and "There's a weird smell coming from my AC, especially right before my car dies," and this determines that one is a tech issue, the other a seat belt failure and the other a stall, and recommends the appropriate action to address each.

Developing this innovative tool required the input of GM employees from across Vehicle Safety and IT Global Data AI & Analytics Services. For their efforts, the team won the GM Chief Data and Analytics Office's 2019 Analytics Excellence Recognition award.



## WORKPLACE SAFETY

Our workplace safety vision is to “Live Values that Return People Home Safely. Every Person. Every Site. Every Day.”

This vision is guided by our safety policy, which applies to all employees and others working at our sites, including consultants, agents, sales representatives, distributors, independent contractors, third-party suppliers who work on GM premises and contract workers when they perform work for GM.

Like product safety, we manage workplace safety at the highest levels through Monthly Operating Reviews with global functional senior leaders, including the CEO and the Global Safety Leadership Council (GSLC), which is comprised of more than 20 senior global manufacturing leaders. The GSLC determines strategic global safety direction and approves workplace safety initiatives, which are the responsibility of the GM Vice President of Workplace Safety. This senior management member also provides a bimonthly update on the safety performance of the company to the GM Board of Directors (BOD). Enterprise workplace safety risks and control initiatives are reviewed on an annual basis, and updates are provided to the BOD Risk Committee on a quarterly basis.

### GM LIFESAVING RULES

#### WE MUST ALWAYS:

- Use required fall hazard/prevention controls when working at heights.
- Wear seat belts.
- Ensure hazardous energies are isolated or controlled when exposed to hazardous energy or working on equipment.

#### WE MUST NEVER:

- Work on electrical equipment unless qualified and always use the appropriate protective equipment and tools.
- Enter a confined space without following proper entry procedures.
- Defeat, bypass, remove or render ineffective any safety device without authorization.



## Global Workplace Safety Strategy

Our comprehensive Global Workplace Safety (GWS) strategy highlights five key focus dimensions that will enable us to achieve our vision of zero injuries. Each year, we will establish new initiatives under each of the focus areas to make progress toward this vision.

### ***Culture Dimension: Enterprise Safety Culture***

GM believes safety begins with a decision. Our vision is for each person to decide to keep themselves and their team members safe. As an example, the “invisible hand” concept sparks discussion about why people choose to take unwanted risks. This concept acknowledges the performance pressure associated with the natural human instinct to work faster and more efficiently — often at the expense of working safely. To further develop a strong safety culture, during 2019, we conducted detailed site cultural assessments at facilities in Bupyeong (Korea), São Caetano (Brazil), Ramos (Mexico), CAMI (Canada) and Milford (US) through an external company specialized in cultural change support.

The site assessments began with a validated survey, sampling all levels and functions, asking questions about working relationships and employees’ perceptions of safety. Then, quantitative data was generated for cultural attributes that are proven to influence safety and business performance. Next, on-site focus group discussions with hourly employees, front-line leaders and support teams were conducted. Additionally, site leaders and senior manufacturing leaders were interviewed. Finally, significant time was spent in the plants observing working environments (cleanliness, lighting, temperature), workstation designs (safety controls, ergonomics) and employee behaviors (compliance to safety rules and engagement).



Survey results ranked within a 60-90 percentile range for cultural attributes, when compared to other companies who are also focused on improving their safety culture. With most areas scoring in the top quartile, results indicate that our safety environment is competitive with leading companies.

“Teamwork,” “collaborative,” “prideful,” “hard working,” “integrity” and “trust” were consistently used to describe our safety culture. In addition, we demonstrated consistent rigor around safety systems and processes.

Insights from these assessments have identified the following improvement opportunities for growth:

- alignment of Safety Review Boards to drive focus toward leading metrics, while continuing to react to lagging metrics;
- leadership skills for safe decision making and organizational safety transformation; and
- sentinel event data analysis, looking for indicators to better understand where we have risk of suffering a serious injury or fatality.

Upstream decisions can impact safety incidents weeks, months and even years prior to occurrence. Based on the analysis of past significant incidents conducted by a team of specialists, our manufacturing leadership was coached on how to develop a safe decision-making mentality to continue driving the culture change at GM.

### **Knowledge Dimension: Hazard and Risk Identification**

GM's vision is for every person, at every site, to recognize hazards, understand risk levels and feel empowered to address safety concerns. Our people are regularly trained in basic hazard recognition, and our leaders are trained in GM's specific risk assessment tools, like our risk profile tool and Safety Failure Mode and Effect Analysis (SFMEA) tool. Hazard recognition is also included in our training programs for new hire and summer intern programs.

Hazards identified are captured through our reporting systems, which include our employee safety concern process, safety tours and safety conversations. During 2019, 4,026 near-miss incidents and 3,245 unsafe acts and conditions were reported and addressed.

To help improve our hazard and risks identification capability, standard safety tour templates and communication materials associated with our most common hazards in GM have been developed. These common hazards include confined space, hazardous energy control, electrical, mobile equipment and pedestrian interaction and fall hazards, among others. These global checklists help our operations identify and control risks and raise awareness among leaders.

Senior leadership plays an important role in instilling safety throughout the GM culture. Workplace safety is a criterion for senior leadership performance reviews and is tied to executive compensation. Lagging and leading metrics are used to drive improvement in our corporatewide safety culture. Lagging metrics include performance in fatalities, permanent disabling injuries and lost work day injuries. Leading indicators are developed by

each function based on proactive initiatives to improve GM's safety culture. These enterprise-wide initiatives are broad in nature, cross functional and comprehensive in their inclusion of all people. They are categorized into four general focus areas:

**Engaged Leaders:** Leaders need to be "advocates" and own safety for themselves and others.

**Working Safely Everywhere:** Regardless of where work is performed, people will recognize hazards and choose safe decisions.

**Zero Injury Mindset:** A Zero Injury Mindset is demonstrated by the relentless pursuit of injury reduction through analyzing data and developing action plans to prevent reoccurrences.

**Health and Wellness:** Long term strategies regarding safety culture include slowly shifting focus from "serious injury reduction" to "do no harm" to "health and well-being." This category focuses on GM's commitment to care for everyone's physical and emotional well-being.

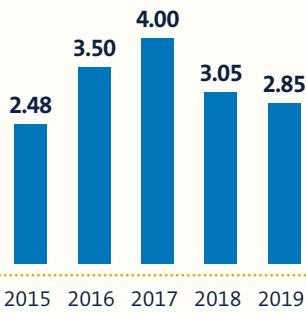
As part of our end-to-end approach to safety, GM engages leaders in every function to demonstrate safe behaviors for their teams and conduct risk assessments to address potential hazards. Global Safety Week, as well as other events year-round, help leaders educate employees on safety topics.





## Lost Work Day Rate – Employees

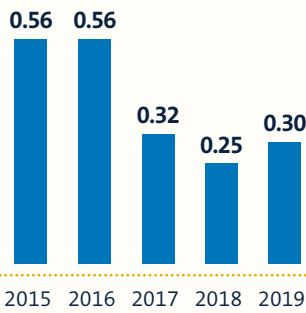
Number of lost workday injuries and illnesses per 1,000,000 work hours.



*This KPI focuses on those injuries and illnesses that resulted in employees' losing days from work. This helps us identify areas and processes where we should center our focus to improve our safety controls.*

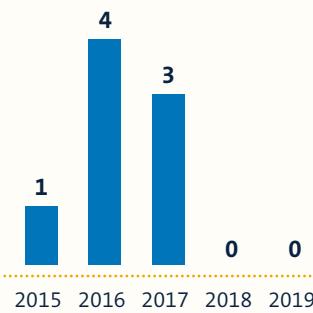
## Lost Work Day Rate – Contractors

Number of lost workday injuries and illnesses per 1,000,000 work hours.



## Fatalities

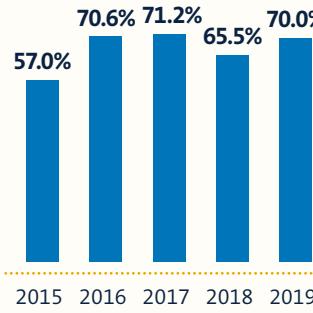
A work-related incident resulting in death.



*Our target is zero, so that every person who enters a GM facility leaves safe and unharmed.*

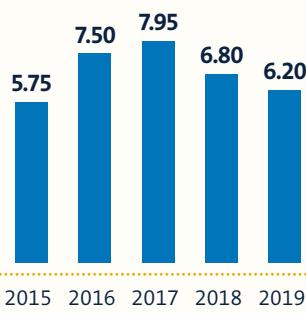
## Sentinel Events Proactive

Percent of Sentinel Events (any event with the potential to generate a serious injury or fatality) detected as Unsafe Acts/Conditions and that did not result in an incident.



## Recordable Incident Rate

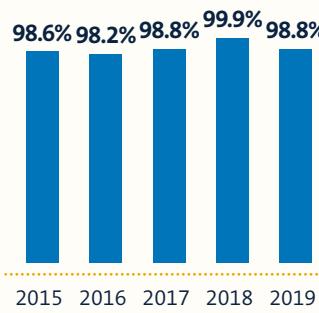
Number of incidents that resulted in injuries or illnesses that required medical treatment beyond simple first aid treatment per 1,000,000 work hours.



*This metric helps to identify hazards, eliminate risks and drive reporting for all incidents so that we can learn and assess areas for improvement.*

## Global Calls to Action Closed on Time

Percent of Global Calls to Action closed on time. A Global Call to Action is a list of lessons learned and required corrective actions to be performed by each GM site globally in response to serious incidents that occurred on any GM site.



## Systems Dimension: Workplace Safety System Maturity

Our global safety management system, Workplace Safety System (WSS), drives continuous improvement in all five global workplace safety dimensions. The system is aligned with most management systems of international consensus standards such as OSHAS 18001 or ISO 45001 and the continuous improvement philosophy.

The WSS includes a set of tools, known as elements, designed to drive continuous improvement in safety through the Plan-Do-Check-Act (PDCA) cycle. Using the PDCA cycle changes our mindset from “tell me what you want me to get done” to “I know what I need to do, and I know how to improve upon it,” which reinforces behaviors that change the culture. The five main components of the PDCA cycle are broken down into 18 individual elements, as the graphic below indicates.

Performance standards establish the minimum global requirements to manage specific hazards common to GM sites. A subset of performance standards are technical standards, which provide additional technical details for effective implementation of a performance. The system is aligned with most management systems of international consensus standards such as OSHAS 18001 or ISO 45001 and the continuous improvement philosophy.

Our performance and technical standards include, for example, standards to manage confined space entries, electrical safety, hazardous energy control, fall hazards and pedestrian and mobile vehicle interaction. Some of these standards are also focused on having healthy working environments for our employees, like ergonomic programs, noise control and indoor air quality programs.

Ergonomically correct workspaces are a priority at manufacturing facilities around the world. All workspaces at manufacturing facilities must meet ergonomic criteria, and job positions are evaluated using screening tools like Risk Factor Checklist, Global Ergonomic Screening Tool, National Institute for Occupational Safety and Health Lifting Equation and the Occupational Repetitive Action tool.

We have a global standard for personal protective equipment (PPE). Everyone who visits or works on the manufacturing floor at a GM site must wear safety glasses and substantial footwear. We also have a global standard for PPE to eliminate many of the most common workplace injuries. Bump caps are required for those who work under a vehicle, in a robot cell or on a stamping press. Additional standards address specific hazards in body, casting, stamping and construction areas. Beyond PPE, we are working on general practices to eliminate sprains and strains, which make up approximately half of all injuries in GM’s North American operations. We evaluate and coach employees on various ways to approach physical tasks and deal with soreness before serious injury occurs.

Our governance oversight process for the implementation of the workplace safety system, including performance standards and technical standards, works under three levels of defense, the first being site annual self-assessments. The second level of defense is done through validations conducted by Global/Regional safety staff teams and the third level of defense is performed by independent internal safety audits conducted by General Motors Auditing services, which provide oversight to the Board of Directors.



### **Data Dimension: Data-Driven Decisions**

Accessible, easy-to-analyze global safety data promotes data-driven decisions. A data management system is used to report, collect and analyze all safety information including incident reports, audit findings, inspections, corrective actions and risk mitigation data. Leaders evaluate injury data within their span of control and drive accountability, analysis, and data-driven decisions at all levels. At every level of the organization, we share the right information to align strategies, set aggressive goals, assess progress and course-correct as necessary to demonstrate significant improvement.

**Board of Directors:** Management's efforts to improve our Safety Culture and devise appropriate risk reduction initiatives are reviewed throughout the year. Global injury data for the most significant injury types (e.g., fatalities, permanent disabling injuries, and lost workday cases) is shared to evaluate the effectiveness of our overall Global Workplace Safety Strategy.

**CEO and Senior Leader Team:** The Senior Leadership Team ("SLT") is personally leading safety improvement initiatives to improve our culture and reduce injuries. In addition to the data reviewed by the Board, injury data is segregated by region, sector, and

function to drive accountability and ensure proper evaluation of safety initiatives with course correction as necessary. Trend analysis is conducted for all significant injuries, while permanent disabling injuries and hospitalizations are discussed in depth. The SLT sets aggressive goals in order for progress to be made toward significant year-over-year improvement.

**Regional and Functional Leaders:** Regional and functional leaders are provided more detailed injury data and information to successfully lead change in their area of responsibility. In addition to the information provided to the SLT, the regional and functional leaders analyze injury data by both number and hours worked to identify significant trends or outliers. Metrics are also tracked to connect business plan initiatives to injury results.

**Site Teams:** Every Site Team across the globe has specific safety performance goals that support global commitments. Sites analyze their injury data in depth, evaluating injury rates, injury types, and body parts affected. In addition to all the data shared at each level of the Company, incident data, such as near misses and first aid visits, is used to develop additional leading metrics. Sites utilize the Workplace Safety System to drive continuous improvement.



## **Exoskeletons Take a Load Off**

As technology progresses, so does the potential to keep people safe from injury at work. One area that is advancing rapidly is wearable mechanical assist technologies, often referred to as exoskeletons. Exoskeletons are designed to help workers performing physically demanding tasks such as overhead work. They operate by transferring the load from the shoulders, neck and back to the core of the body.

Ryan Porto, a senior ergonomist at GM, identified a lightweight exoskeleton that should lower exertion levels by up to 80 percent, lowering the risk of upper body injuries. A group of 60 team members from Orion, Springhill, Arlington, Fort Wayne, Lansing Delta and Detroit Hamtramck participated in a trial of the technology. They gave feedback on fit, comfort and other issues to help the supplier improve the design based on team member input. So far, results have been positive, with employees describing shoulder muscle tension relief, improved arm-hand steadiness and increased endurance. We'll continue to conduct trials to confirm the effectiveness of devices like these over time.



#### ***Risk Mitigation Dimension: Safety Contract Management***

We aspire to do business with companies that share the same commitment to returning people home safely. Historically, most fatalities and severe injuries suffered on GM sites have involved contractors. Today, our scope of safety contract management includes all contractors and service providers who perform work for us. Globally, all new contracts now include contractual terms and conditions that clearly outline GM's safety requirements. We host safety contract management key contractors symposiums to directly engage contractors in our safety requirements. Also, along with the purchasing team, we manage a cross-functional safety council with major contractors.

## **SAFETY CHALLENGES FOR THE ROAD AHEAD**

- Educating consumers on benefits of advanced safety technology options to drive greater adoption
- Addressing driving behaviors that are often beyond our control, such as driver distraction and impairment
- Continuing to cultivate and engage a global workforce who make vehicle and personal safety their top priority

# On the Front Lines of GM's Safety Culture



## ***Lansing Delta Township***

A failure on a skillet conveyor scissors lift halted assembly of the Chevy Traverse and Buick Enclave crossovers. During repair, skilled trades team members identified an unexpected, large structural crack in the lift. The team remembered a near miss with similar equipment from a few years ago. To avoid another significant incident the team stopped and reassessed their situation. Then, they engaged engineering and developed a safe way to properly fix the structural crack, causing half a shift of downtime that necessitated in sending more than 500 people home. The experience demonstrates how the team members recognized a hazard, felt empowered to stop production, ignored the “invisible hand” that would pressure them to take risks and worked together to safely plan and engage others to help.



## ***San Luis Potosí Mexico***

During a Safety Observation Tour, Concepcion Orta, a body shop launch team member, noticed an operator pulling dash panels from a rack without using a mechanical assist. Although this issue was not causing operational problems, Concepcion recognized the risk. Dash panels have an oil film from the stamping process that makes them difficult to handle without dropping. Concepcion immediately contacted her team leader to evaluate the risk and, together, they brainstormed a safer method to perform the task using manual suction cups to safely handle the panels — a simple solution that greatly reduced the risk. Concepcion demonstrated the GM value “It’s on Me” when she saw someone in harm’s way and engaged with the team to mitigate risk.



## ***GM del Ecuador***

Luis Buestan, a QCOS auditor, was using the staircase with his child after returning to his new home from work, when he realized there were no handrails. Thinking back to a safety talk he had just listened to at work on handrail safety, he recognized the hazardous environment at his new house. Luis made safety personal in this moment. He immediately arranged for a handrail to be installed on the staircase. He then shared with his family the importance of having and using handrails to prevent slips, trips and falls while using stairs. Luis demonstrated the “It’s On Me” GM behavior by taking his knowledge from a safety message at work and bringing it home to his loved ones.



## ***Lansing Grand River Stamping***

When die makers were asked to unload new dies and their associated steel blank from a semi-trailer flatbed, the driver of the flatbed suggested they use a crane. He even showed the die makers how they could attach to four knobs located on the pallets underneath to unload the steel blanks. Recognizing a safety hazard — the knobs were not an approved rigging point — they refused to use the crane for unloading. The die makers contacted the plant safety department, which determined that the knobs were not approved and could potentially fail if used. The die makers used an approved fork truck instead. They demonstrated the “Be Bold,” “It’s On Me” and “One Team” GM behaviors by speaking up about a hazard, engaging knowledgeable personnel, asking the right questions and then acting to ensure the safety of themselves and those around them.

## Working as “One Team” During Global Safety Week and Beyond

In 2019 we celebrated GM’s sixth annual [Global Safety Week](#), taking time to collectively reaffirm our commitment to keeping our customers, ourselves and our colleagues safe. This year’s Safety Week focused on the GM behavior “One Team.”

Throughout the week, we shared safety success stories across the company; highlighted teams and individuals who have gone above and beyond as Safety Heroes; and participated in quizzes, all-employee meetings and global broadcasts.

Given this year’s focus on teamwork, we included our supply base in the week’s activities and gained active participation from our joint ventures. We also invited a customer to share their emotional story of how our product saved their life.

Hear from our employees about [“One Team”](#) for safety.

During a Colorado snowstorm, [Kurt Marrs](#)’ 2019 GMC Terrain slid off an icy mountain road and flipped several times before coming to rest in a ravine. Remarkably, Marrs and his passenger were unharmed and returned home safely. Marrs wrote a heartfelt letter to GM Chairman and CEO Mary Barra expressing his gratitude: “I am absolutely convinced that the Terrain helped save our lives or kept us from being severely injured. I am grateful that GMC embraces technology and innovation to make vehicles that are not only attractive but, most importantly, safe to drive.”



[Anush Antony](#) noticed confusion among drivers in the parking garage of the GM Technical Centre in Bangalore during his daily commute. Vehicles were failing to stop at striped pedestrian crossing zones, putting employees and visitors at risk. In addition, new visitors to the Centre often thought the entry ramp into the garage was an exit. Anush took to heart the many safety messages he had heard as a GM employee and felt empowered to share his concerns with the Centre’s safety team. He even took extra time to develop low-cost improvements that would keep hundreds of people safer each day. As a result, speed breakers have been placed near the striped pedestrian crossings to slow traffic and the first floor of the parking garage has been dedicated to visitor parking.



As an integration engineer for new assembly cells at Parma Metal Center in Cleveland, Ohio, [Rich Eucker](#) continually looks for ways to make T1 truck assembly cells perform better and more safely. Rich was alerted to a condition where safety doors would drift several inches even after being shut off, which could be unsafe for techs. He and his team introduced an electric brake that would stop the safety door immediately without affecting other circuits. For Rich, safety is personal. “I’ve been here a long time, and I know a lot of these techs,” Rich says. “We had to find a way to keep everyone safe.”



# EARNING CUSTOMERS FOR LIFE

## KEY TAKEAWAYS

- Our total focus on the customer begins with the vehicle development process, which is rooted in a cultural commitment to design, engineer and build vehicles with the highest levels of quality.
- In the J.D. Power 2020 Vehicle Dependability Study, 15 GM vehicles ranked in the Top Three in their segment, and five vehicles won their segment.
- We provide training and tools to help dealerships exceed customer expectations, and use the Mark of Excellence program to recognize top-performing dealers.
- We ensure a superior ownership experience for GM vehicle drivers with services like the GM Collision Repair Network, Customer Assistance Center, OnStar and Roadside teams and My GM Rewards.

### IN THIS SECTION:

#### 64 Customer Trust & Satisfaction

- Vehicle Development Process
- Building a Defect-Free Culture
- Quality Assurance
- Dealer Quality Programs
- Customer Experience



## CUSTOMER TRUST & SATISFACTION

Customer satisfaction speaks to what we believe as a company. Customers trust GM brands, operations and dealers around the world to provide them with quality products that will help them keep their families safe.

We understand that this trust is easy to lose and difficult to regain. Today, we are more focused on this responsibility than at any other time in our history. Our goal is to satisfy our customers to a level where they are not only loyal to our brands and products, but also recommend them to others. Everything we do is grounded in an intent to deliver the highest possible levels of product quality. Our brands, products and services aim for benchmarks in studies measuring quality and consumer satisfaction. Accordingly, our focus on product quality aligns the entire company with the goal of exceeding customer expectations and providing customers with the best overall experience.

## Vehicle Development Process

This total focus on the customer defines how we develop, engineer and manufacture our vehicles with quality and durability goals in mind, starting with the vehicle development process. We harness customer feedback from global markets to help shape our customers' product experience, using our GM Compass customer survey to gather preferences on a variety of issues — from performance and efficiency to how people interact with their vehicles. We also are continually refining our vehicle development processes to help deliver products our customers want that meet their expectations for quality, safety and performance. The latest version of our Global Vehicle Development Process was released in 2016 and included additional, explicit steps to improve safety and quality assurance.

## Building a Defect-Free Culture

The Global Vehicle Development Process is rooted in a cultural commitment to design, engineer and build defect-free vehicles. Building upon GM's foundational "Who We Are" and "How We Behave" foundational statements, employees are committed to a goal of delivering defect-free vehicles as a value supported by key initiatives and behaviors. This commitment is supported by three elements:



1. **PRODUCT SAFETY**, which in recent years has been enhanced through several organizational changes, including the formation of a Global Product Integrity organization, the restructuring of our global vehicle safety and safety field investigation processes, as well as implementation of our Speak Up For Safety program, Prevent Repeat Defect process and Safety Incident Protocol.



2. **SYSTEMS ENGINEERING**, which is applied to our processes through an organization that defines functional content, assigns function ownership and uses a new IT-based system to help map, flow and trace requirements across our complex systems network.



3. **QUALITY CHAIN**, which is an interconnected system of tools and methods that illustrates required collaboration and drives visibility into how design, systems and process failure modes can be mitigated. This helps drive enterprise-wide engagement so all issues can be corrected across all systems and processes.



We are also emphasizing systems engineering companywide. This requires all people to practice the discipline of systems thinking, understanding how their individual roles contribute to the bigger picture rather than thinking in silos. Related to systems thinking is our quality chain construct. GM has quality tools that work as interconnected processes and cross system and organizational boundaries. Using these tools together is helping us build discipline into our process for identifying and addressing failure modes.

These product development-centric elements are foundational to building a defect-free vision and are completed by our Launch Excellence initiative. The initiative uses an Affinity Diagram to help teams focus on what must be true in terms of process and discipline to successfully navigate vehicle development.

## Quality Assurance

All manufacturing operations that require ISO 9000 certification — a set of international standards on quality management and quality assurance — are certified. Globally, we have transitioned to the new ISO 9001:2015 standard, which is aligned with the most recent trends. All operations have completed the transition and certification in 2019. We have three component plants certified to the IATF 16949 standards. We also maintain a Global Manufacturing System (GMS) that informs all aspects of our business and is even more rigorous than external standards.

Initial quality has evolved as a measure of issues that customers may experience with their vehicles in the first months of ownership. In recent years, user-friendly infotainment systems, seat comfort, knob and handle placement and other features have replaced component failures as top quality issues. The key metric for GM to measure initial quality is 12 Months in Service Incidents Per Thousand Vehicles (12 MIS IPTV).

It's also important to understand that quality today goes beyond reliability to encompass often intangible experiences. That is why we are taking more scientific approaches to translate customer input and feedback into technical requirements that define the overall driving experience. Consider, for example, the sound of an engine start or transmission shift, the feel of buttons when pushed or the sound doors make when closing. Such quality attributes often can be difficult for customers to describe and quantify. New advanced tools and approaches, such as Human Vehicle Integration, help to translate customers' requirements into technical specifications and, ultimately, vehicle designs.

Each element is interdependent, enterprisewide and designed to be sustained over the long term to facilitate the learning, practice and perfecting that are required to achieve a defect-free culture.

Our Global Product Development function has translated GM's vision of zero defects into values and behaviors that are meaningful for employees. These behaviors include a focus on product safety, which we strengthen with continuous improvement in our Global Product Integrity organization, the Speak Up For Safety system and a restructured safety field investigation process. We reinforce these behaviors through the Mark of Customer Excellence (MoCE) award, which recognizes GM employees in the U.S., Canada and Mexico who go above and beyond to live our cultural values and create amazing experiences for our customers. The award honors moments that can happen at any time, from work in the office on a project to out in one's community.



## J.D. POWER 2020 VEHICLE DEPENDABILITY STUDY

**15**

vehicles in the Top Three of their segments

**5**

vehicles won their segment (Buick Encore, Buick Regal, Chevrolet Equinox, Chevrolet Silverado HD and Chevrolet Tahoe)

**1st**

Buick was the top-ranked mass market brand for fewest defect/malfunction issues and had the lowest component replacement percentage in the industry

The implementation of updated tools and programs is helping GM employees around the world react better and faster to the needs of our customers. For example, our Global Product Development organization has completed the highest level of Design for Six Sigma training, a process that focuses on customer issues and solutions. We also have migrated all of our plants around the world to the highest quality levels with the goal of shipping defect-free products. Operational Excellence has been implemented across the enterprise as a proven, systemwide and data-driven approach to confronting business issues and identifying lasting solutions.

The goal of these and other programs is to take action as early as possible in the vehicle development and manufacturing process to promote excellence at product launch. This “quality across the enterprise” approach drives behaviors and actions throughout the company to result in brands, products and services that meet or exceed the expectations of our customers.

## Leading in Customer Loyalty

For the fifth year in a row, GM has ranked as the No. #1 manufacturer in the 2019 IHS Markit Automotive Loyalty Awards. In addition, the Chevrolet Equinox has ranked as having the highest loyalty in the CUV segment. IHS Markit, which is a leading source of global automotive industry information, analysis and insight, recognized GM's success in retaining owners over repeat buying cycles. The awards are determined when a household that owns a new vehicle returns to market and purchases or leases another new vehicle of the same make, model or manufacturer. This year's awards are based on an analysis of nearly 17.5 million new vehicle registrations during the 2019 calendar year. According to IHS Markit's analysis of the CUV

segment, the Chevrolet Equinox had the greatest percentage of owners who returned to market and purchased or leased another Equinox in the 2019 calendar year. Equinox is GM's second-best-selling vehicle and has seen an annual sales increase in nine of the last 10 years.

**5th**

consecutive year GM named IHS Markit automaker with the highest customer loyalty

## Recognition for Putting Customers First

The Mark of Customer Excellence (MoCE) award embodies our commitment to putting the customer at the center of everything we do, recognizing those who go above and beyond to live our cultural values and create amazing experiences for our customers. The award honors moments that can happen at any time, from in the office at work on a project to out in one's community. The award is open to all GM employees in the U.S., Canada and Mexico, and awards are given each quarter at GM's Quarterly Earnings Broadcast. In 2019 MoCE honorees included:



*The GM de México team, who developed a communications plan to help customers and drivers through a gasoline shortage crisis in Mexico City. In early 2019, seven states in Mexico experienced gasoline shortages after the government closed main pipelines*

in an effort to stop illegal gasoline theft. This created long lines of drivers at the gas pump and uncertainty about where fuel could be purchased. The GM team deployed social media hashtags — #ReporteGas (“gas report”) and #DondeHayGas (“where there’s gas”) — on Twitter and Instagram to help residents request and receive status reports on where fuel was available. And, by taking to the streets in the Bolt EV with 4G LTE connectivity, the team members were able to provide real-time information about which gas stations had fuel, wait times and estimated times that stations would receive more fuel. On the second day of the crisis, #ReporteGas became a trending topic, ultimately generating 43 million impressions with a following of more than 1 million people.



*Ladell Willis, a district manager for Chevrolet Aftersales who helped a customer visit her mother for Mother's Day. Willis was visiting Gerry Lane Chevrolet in Baton Rouge, Louisiana, to help host a vehicle inspection event. That's when he encountered a*

customer at the dealership for an oil change who was told her vehicle had a few service issues that needed to be addressed. Furthermore, she was informed that her vehicle's battery was

nearing the end of its life. The customer, who recently faced personal hardships, was not able to afford a new battery, and was troubled because she was planning a lengthy drive to Texas to visit her mother for Mother's Day. Ladell stepped up and paid for her battery out of his own pocket — despite having goodwill tools available. When the customer offered to repay Ladell, he refused to accept. It was a gesture that moved the customer, as well as dealer employees, to tears.



*The Midsize Truck Fleet and Program team who made safety a priority and saved a valuable customer relationship. Like GM, many of our Fleet customers make safety an overriding priority. When it came time for two*

major customers to order more midsize trucks, Automatic Emergency Braking (AEB) was a must-have feature. It was not available, however, on the current generation Chevrolet Colorado, but, rather, on the midsize trucks offered by two competitors. The shared sentiment for safety, and potential for customers to take their business elsewhere created quite the challenge, and opportunity, for the GM Fleet team. John Schwegman, Director of Midsize Pickup and Commercial Product, began working with Jaclyn McQuaid, Executive Chief Engineer, to identify a cost-effective solution to engineer standard AEB into 2021 model-year Colorado vehicles for our Fleet customers. Once the solution was identified, the responsibility to execute the revised specification required the commitment and action of the Program Control System Integration team. Despite several engineering resource constraints and the existing plan to integrate AEB into the 2023 model-year Colorado, the team's actions helped meet the needs of fleet customers and demonstrated that safety is a top priority for GM and our customers.

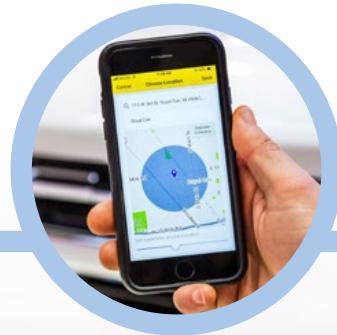
*“The Mark of Customer Excellence award embodies our commitment to putting the customer at the center of everything we do.”*

## Dealer Quality Programs

Our commitment to quality and customer satisfaction extends to the experience customers have when they visit our dealerships. It is essential that we maintain a consistent level of sales and service excellence to earn and maintain customer trust. Two elements of quality management systems help us achieve this consistency. We use Standards for Excellence (SFE) to measure dealers and Essential Brand Elements (EBE) to update and measure dealerships on the achievement of brand standards relating to the quality and effectiveness of dealers' interaction with customers. The variable compensation of each dealership depends on the level of achievement under the SFE and EBE programs.

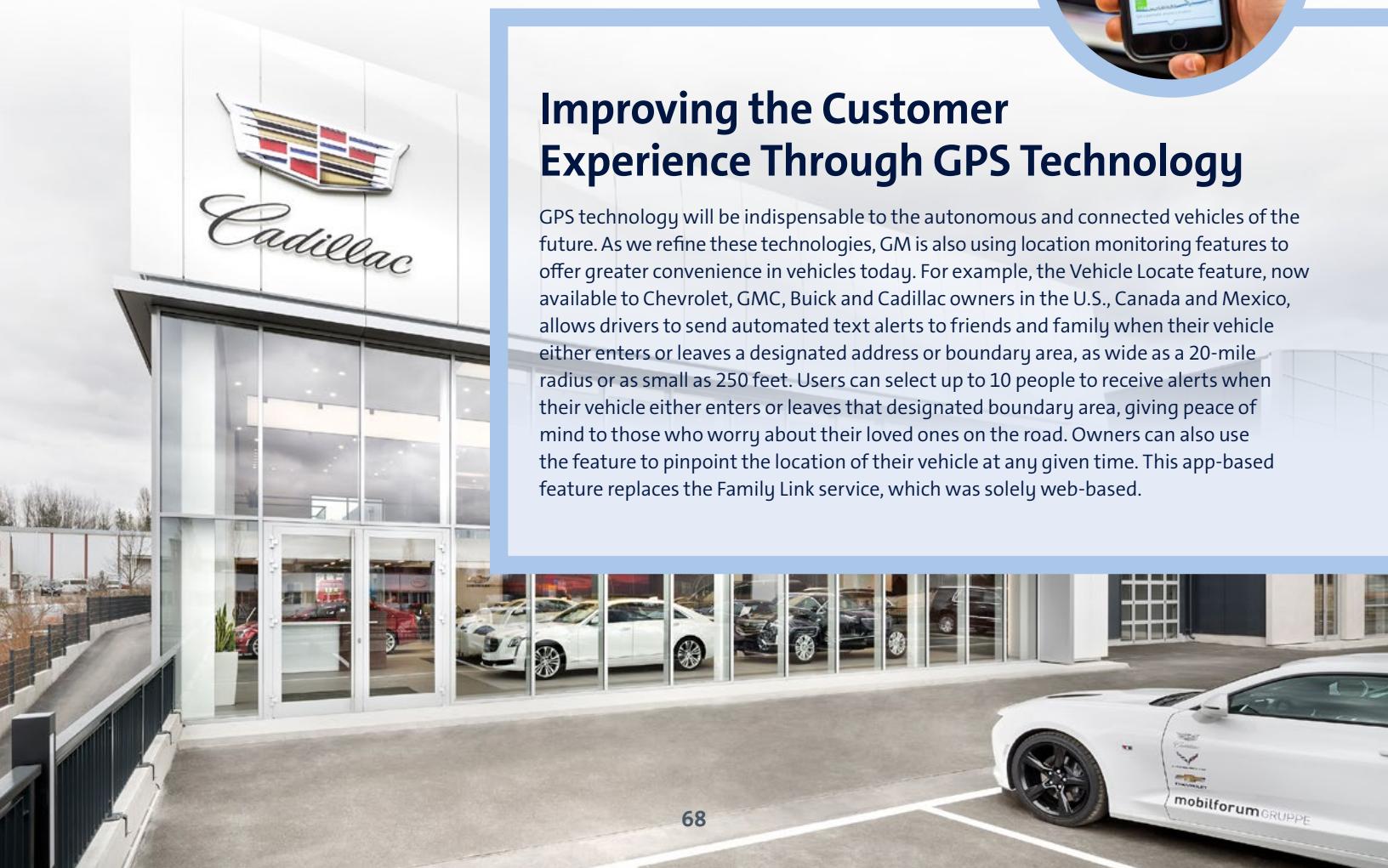
We also maintain the Mark of Excellence program, which annually recognizes high-achieving dealers, sales consultants, sales managers, service managers, service consultants, service technicians and parts teams. Out of GM's 4,095 Chevrolet, Buick, GMC and Cadillac dealerships across the United States, 3,177 dealers and more than 63,275 dealer employees are enrolled in the 2020 Mark of Excellence program.

We provide both technical and nontechnical training and tools to dealerships to help them meet or exceed their customers' expectations. This training includes modules for sales, finance, front office and management staff; apps for sales and service; and various reference documents such as FAQ documents. Different departments in the dealership relating to sales, as well as service, must maintain a certain level of training performance by meeting technical and nontechnical criteria. For example, to self-authorize warranty claims, a dealer must maintain 100 percent training for technicians at all times. Our GM Internal Audit Staff ensures dealer compliance by auditing all dealerships on a rotating basis. Dealers are required to achieve third-party Automotive Service Excellence certification of their facilities, an industry standard and a customer-recognized seal of quality. Furthermore, while ISO 9000 certification is not mandatory, many dealers are ISO 9000 certified.



## Improving the Customer Experience Through GPS Technology

GPS technology will be indispensable to the autonomous and connected vehicles of the future. As we refine these technologies, GM is also using location monitoring features to offer greater convenience in vehicles today. For example, the Vehicle Locate feature, now available to Chevrolet, GMC, Buick and Cadillac owners in the U.S., Canada and Mexico, allows drivers to send automated text alerts to friends and family when their vehicle either enters or leaves a designated address or boundary area, as wide as a 20-mile radius or as small as 250 feet. Users can select up to 10 people to receive alerts when their vehicle either enters or leaves that designated boundary area, giving peace of mind to those who worry about their loved ones on the road. Owners can also use the feature to pinpoint the location of their vehicle at any given time. This app-based feature replaces the Family Link service, which was solely web-based.



## Customer Experience

We recognize that overall customer satisfaction is a function of both quality products and customer interactions to create a distinctive customer experience. This requires having a 360-degree view of our customers that enables us to recognize, understand and serve them best.

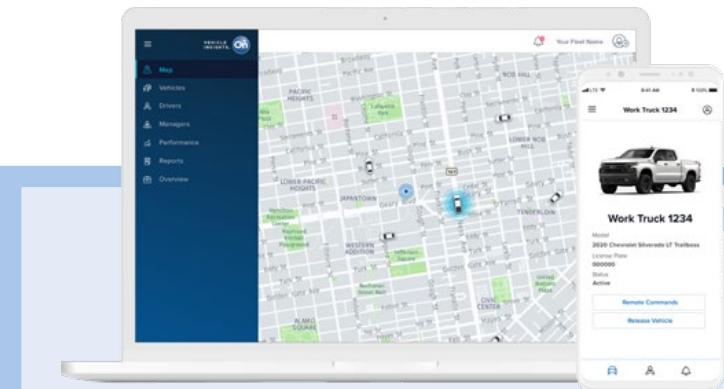
We make great efforts to make sure that our customers can share their concerns with us at any time. Our Customer Assistance Center is integrated with our U.S. dealer network, field organization, technical and parts assistance, engineering, product quality teams and OnStar and Roadside teams. Any GM employee or customer can easily report a concern or comment through the Center's website, email address or phone hotline, where our dedicated team works to quickly incorporate feedback and resolve concerns.

**3M+**  
drivers enrolled  
in My GM Rewards

Another way we build loyalty is through the My GM Rewards program, the automotive industry's first comprehensive loyalty rewards program. Once enrolled, members can earn and redeem points on eligible purchases, including new GM vehicles, parts, accessories, paid dealer services, OnStar and Connected Services plans and more. More than 3 million drivers have signed up for this program.

We measure customer satisfaction progress primarily through the Net Promoter Score (NPS), which is an important key performance indicator that gauges how likely a customer is to recommend our products. NPS is calculated as the percentage of satisfied customers out of all customers surveyed globally. We are fortunate to enjoy an exceptionally high rate of response, reaching 97.1 percent of customers surveyed. Our goal is continuous year-over-year improvement. In 2019, 87.9 percent of customers responding to the survey were satisfied, exceeding our goal of 86.9 percent. Every customer also receives a dealer assessment, the Customer Satisfaction Index (CSI), that asks for feedback on both their sales and service experience at dealerships. Questions associated with NPS and our CSI survey are incorporated into a common global survey. We use the true NPS calculation, as we believe this data best represents customer satisfaction because it is a measure of advocacy. In addition to our internal metrics, we monitor third-party measures of customer satisfaction and quality to gauge our progress.

**87.9%**  
Net Promoter Score



## Meaningful Insights for Fleet Managers

Managing a family car's fuel and maintenance needs, as well as ensuring that all family members are using the car safely, can be complicated enough. Imagine keeping track of a fleet of hundreds of vehicles and drivers at once.

GM understands the pressure fleet managers face to save time and money, which is why we created OnStar Vehicle Insights, a suite of solutions designed to help fleet managers maximize their daily operations. Using a simple dashboard, fleet owners can view the location, mileage, oil life and fuel efficiency of all vehicles in their fleets. They can also receive preventive service prompts and maintenance notifications. Managers can encourage drivers to perform their best with insight into driving behaviors like hard-braking events and speeding, which we use to calculate a driver performance score. And drivers can save time and hassle with lock, unlock and remote start via the OnStar Vehicle Insights website.

## CUSTOMER SATISFACTION CHALLENGES FOR THE ROAD AHEAD

- Ensuring defect-free vehicles as increasing levels of advanced technologies are deployed
- Maintaining a consistently positive customer experience across thousands of interactions among dealerships and GM sales and service teams
- Re-enforcing GM values and behaviors that ensure excellence are embraced across our global workforce



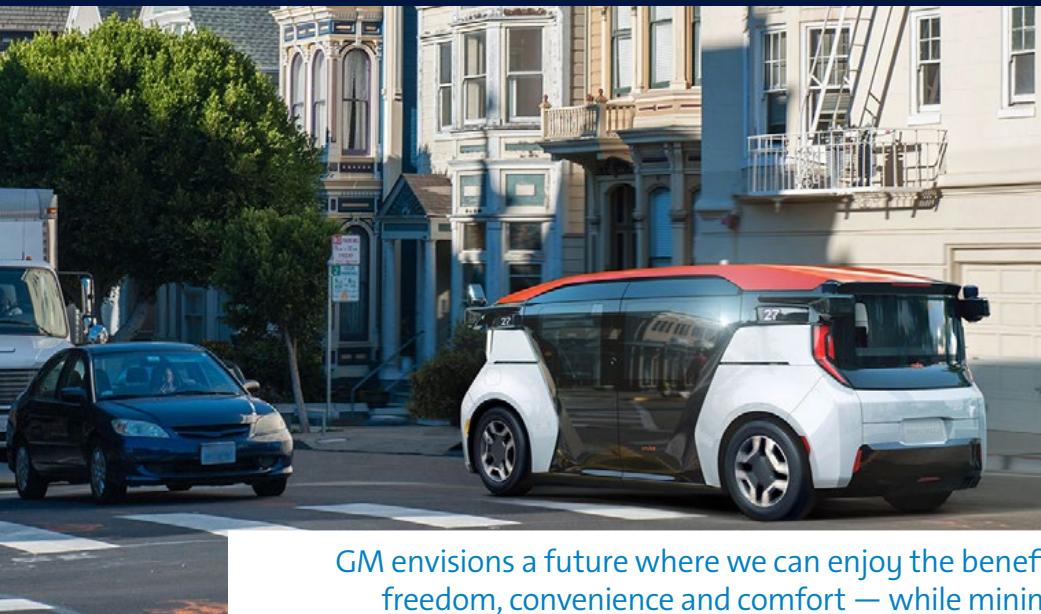
# TRANSFORMING MOBILITY

## KEY TAKEAWAYS

- GM is the right company to deliver the benefits of autonomous vehicles, bringing expertise in automotive design, safety testing and proven quality methods refined over more than a century to Cruise, the self-driving company majority-owned by GM.
- In January 2020, Cruise unveiled the Cruise Origin, a shared, electric, self-driving vehicle that will operate in a fleet and will have a useful life of more than 1 million miles.
- From partnerships and pilot programs with cities to insights from our own experiences, GM continues to explore solutions that can lead to a zero-congestion future.
- As technology plays an ever more important role in GM vehicles, we are taking care to ensure appropriate security with a Product Cybersecurity organization and Board-level Cybersecurity Committee.

### IN THIS SECTION:

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- 77 Leading in Connectivity**
  - Cybersecurity Risks
  - Privacy Protection



GM envisions a future where we can enjoy the benefits of vehicle use — freedom, convenience and comfort — while minimizing risks such as crashes, emissions and congestion.

We are working on the technologies that will make this future possible, blending global insights with local market expertise as the automotive industry transforms from a traditional manufacturer of goods to a provider of services that delivers new ways of thinking about transportation.

Over the past decade, GM has built a strong leadership position in vehicle electrification and connectivity. And in the past four years, we have been rapidly building a similar position in autonomous and shared vehicles, as we continue exploring and developing our shared mobility and autonomous ride-sharing platforms with Cruise.

The most significant change affecting modern mobility is the rise of autonomous vehicles (AVs). Autonomous driving is on the brink of disrupting the automotive industry, and GM is helping chart the course of that transformation. AVs could help bring enormous societal benefits, the most visible of which may be dramatic increases in road safety. Consider that almost 1.25 million people are killed in road crashes every year — more than 3,000 per day. Human error is to blame for most of these injuries and deaths. By taking human fatigue, distraction and impairment out of the equation, we can help save the lives of tens of thousands of drivers, passengers, cyclists and pedestrians.

AVs will save another precious commodity: time. According to the Texas A&M Transportation Institute, total delay and costs associated with congestion across the United States have grown in recent decades. Studies focused on specific states or regions identify similar trends. For example, in Massachusetts, automobile commute times increased about 10 percent between 2008 and 2017. In California, state data show that the number of hours vehicles spent traveling below 35 miles per hour on state highways more than doubled over the same time period. As a result, the average American now spends 54 hours per year stuck in traffic. And globally, we estimate that the economy loses roughly \$1 trillion per year in lost productivity due to people and goods being stuck in traffic.

Understanding the causes of congestion points the way to potential solutions. According to the Federal Highway Administration (FHWA),

traffic incidents — including vehicle crashes — cause about a quarter of all congestion in the United States. Recurring peaks in demand — most notably, daily commute periods — account for about half. Moreover, as a function of traffic volumes, congestion grows nonlinearly. This tells us that improvements in vehicle safety and strategies for smoothing travel demand peaks, even just at the margins, can help meaningfully reduce congestion and its costs to society. AVs will be part of the answer, potentially reducing the crashes that can bring traffic to a standstill and making better use of available roadway capacity through technologies like platooning.

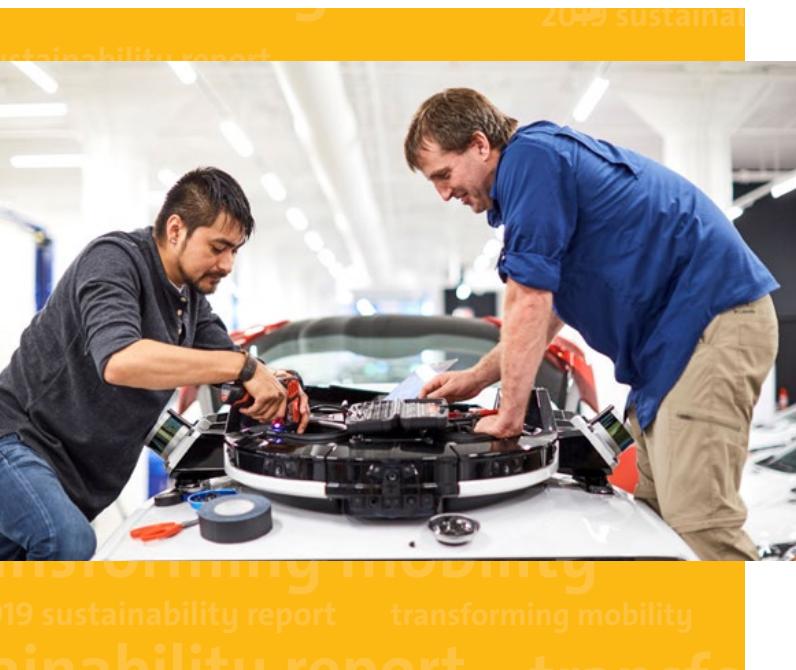
### **Driver Assistance Technology**

For GM, the move toward driver assistance technology on a commercial scale has begun with Super Cruise, the world's first true hands-free driver assistance technology for compatible highways, which is available to Cadillac CT6 drivers on more than 200,000 miles of highways in the United States and Canada. The system allows drivers to remove their hands from the steering wheel, provided the driver maintains attention on the road ahead. LiDAR map data, GPS and a network of camera and radar sensors help keep the vehicle in its lane.

In 2020, we announced an enhanced version of Super Cruise that will be introduced on the 2021 Cadillac CT5, CT4 and Escalade. Among the enhancements will be lane change on demand functionality, which will allow the system to change lanes when requested by the driver and certain conditions are met. As with the original version of Super Cruise, drivers must pay attention to the road at all times. The system provides information such as "looking for an opening" or "changing lanes" to keep the driver informed on the status of a lane change. It will also let drivers know when a lane change on demand is unavailable. Other Super Cruise enhancements include updates designed to improve performance and ease-of-use. Updates include:

- Addition of richer map information to enable lane change on demand and improved functionality through turns and highway interchanges.

## **TRANSFORMING MOBILITY**



- Improved software for better steering and speed control.
- Enhancements to make it easier and more intuitive for drivers to engage the system.

Cadillac CT6 customers are already enjoying the benefits of hands-free operation, driving more than 70,000 miles per week using Super Cruise. Of current CT6 owners, over 85 percent said they would prefer or only consider a vehicle equipped with the system. GM is answering the call: Super Cruise will be available on 22 vehicles by the end of 2023, including full-size pickups and SUVs. We're confident that as we make Super Cruise even more intuitive and accessible for customers, drivers will embrace the benefits of ever-more-advanced technologies.

The enhancements to Super Cruise are made possible by GM's new Vehicle Intelligence Platform (VIP), which provides more electrical bandwidth and data processing power than ever before. We also have made upgrades to the vehicle's software and hardware, incorporating enhanced rear-facing sensors and richer map data to allow vehicles to perform these more advanced maneuvers with the same high levels of safety.

### **Our Cruise Journey**

GM is the right company to deliver the benefits of AVs. Unlike other companies that are retrofitting conventional vehicles with autonomous technology, or designing their own vehicles for the first time, GM brings expertise in automotive design, safety testing and proven quality methods refined over more than a century. Cruise, the self-driving company majority-owned by GM, is the only company with access to the capital and engineering talent necessary to bring AVs quickly to scale. We were the first automaker to use mass-production auto assembly line methods for autonomous vehicles, and we remain the only company with this capacity. Today, GM and Cruise are making rapid progress to build AVs that are affordable, offer a great user experience, operate with zero emissions and, most importantly, are safe to ride in.

On the road to full autonomy, GM is also taking steps to realize the benefits of automation today by equipping our vehicle portfolio with increasingly capable driver-assist technologies. In a study of more than 3.7 million GM vehicles across 20 different models, the University of Michigan Transportation Research Institute (UMTRI) examined the effectiveness of 15 advanced driver assistance features, including forward automatic braking and lane-keep assist. These features reduced rear-end-striking crashes and lane-departure crashes by 46 and 20 percent, respectively. Traffic incidents are a key contributor to congestion, so crashes reduced means traffic jams avoided. This is a real-world benefit that our highway network is already beginning to experience as GM takes steps toward a fully autonomous future, starting with our conventional vehicles.

Leveraging more than 100 years of automotive experience, GM has used integrated hardware and software development and testing in one of the most complex environments in the world to manufacture self-driving vehicles. We do this with the same high-quality standards that we hold for the millions of other vehicles we build for our customers around the world each year.

### **Developing AV Safety Standards**

In 2018, GM published our first Self-Driving Safety Report, describing how safety is integrated into the development, testing and deployment of the Cruise AV. Our AVs are built at our assembly plant in Orion Township, Michigan, which assembles thousands of vehicles per year. The AVs undergo the same rigorous safety and durability testing as other GM production vehicles. Vehicle development fully addresses all 12 safety elements in the NHTSA's voluntary guidance, Automated Driving Systems 2.0 — A Vision for Safety.

We also have joined Ford, Toyota and SAE International in forming the Automated Vehicle Safety Consortium (AVSC), which will help advance testing and safety standards for self-driving vehicles. GM and our OEM peers have generations of experience developing and deploying safe vehicles and have a joint interest in ensuring that AVs and associated regulations are established with safety and reliability in mind.

### **Testing in Complex Environments**

Cruise does almost all vehicle testing in downtown San Francisco, a highly complex environment. Test vehicles are regularly confronted with situations such as unprotected left turns, construction zones, cyclists and pedestrians, enabling these vehicles to learn more per mile of driving than if testing in a suburban environment.

Despite the complex environments to which Cruise submits their self-driving vehicles daily — and the exponential improvements we have made — progressing to a vehicle that can reliably drive safely remains one of the greatest engineering challenges of our time. Cruise continues to grow their team of engineering talent and increase the rate at which they can make progress. These engineers are creating machine learning-driven simulations that allow the AV software to "drive" in an infinite number of simulated environments, gaining experience more quickly than they could on the roads.

## Powered by Electricity

Every Cruise autonomous test vehicle is also an electric vehicle that employs a design based on the Chevrolet Bolt EV. Introducing these technologies in tandem accomplishes multiple goals, including increasing acceptance of EVs and encouraging buildout of EV charging infrastructure. In addition, there are benefits to integrating AV technology into an EV — as opposed to a conventional or hybrid vehicle — from an engineering perspective.

Across the country at the state and federal levels, regulators and legislators are actively considering how to help foster and shape the evolution of AVs. GM is committed to a transparent and active partnership with policymakers in this process. In particular, we are focused on discussing our mobility offerings with city officials across the U.S. and around the world, given that urban settings are the environment in which many of our advanced technologies will provide the most robust applications and value.

## Cruise Autonomous Vehicle Development

**10,000X**

improvement in core safety metric (2016–2019)

**98%**

reduction in time between major AV software releases

**80%**

Reduction in time it takes to train new models

**1M+**

Miles of useful life for the Cruise Origin

**6X**

more than your average car



## The Cruise Origin Story

If the car had never been invented, how would we design a new system of transportation? We might start by removing drivers, who are often tired, distracted and in a rush. We'd ensure it was powered by energy that was good for the planet. And we'd transform an experience that is often dangerous and frustrating into one that is safe, convenient and even fun.

The Cruise Origin is GM's answer to this imaginative thinking. It brings together GM's four aspirations for the future of mobility: a vehicle that is shared, autonomous, electric and connected. The result is not a car you buy, but an experience you share. It's a new form of transportation that is:

- **SPACIOUS.** Since we've removed the driver, we can also remove the equipment that's there to support a driver, including the steering wheel, pedals, rearview mirrors and windshield wipers. We've also taken out the internal combustion engine and gas tank. In their place, we have more space for passengers. Every seat has extra legroom, and the entry is three times larger than that of an average car — wide enough for one person to step in while another steps out. Doors slide open rather than hinging outward, so bikers are safer on the road.
- **MODULAR.** When today's cars leave the factory, they are essentially stuck with the hardware and software they have on board. Because the Cruise Origin will operate in

a fleet, we can make upgrades as needed — much in the way aircraft are maintained and repaired. We'll pass savings on to our customers while reducing waste. This capability will allow each Origin AV to have a useful life of more than 1 million miles, more than six times that of an average passenger car.

- **SAFE.** To ensure reliability, the vehicle has built-in redundancy to eliminate single points of failure across sensing, computing, networking and power. With no backup human driver, Origin uses purpose-built sensors and computers to deliver exceptional performance at an extremely low cost. It will be equipped with software that Cruise AVs have been testing and refining for years on the streets of San Francisco.

Origin is the result of a collaboration between Cruise, the self-driving company majority-owned by GM, and Honda. Cruise focused on the self-driving technology itself, as well as the service's customer-facing design. GM has been focused on Origin's flexible all-electric platform, as well as manufacturing scale. And Honda, a Cruise investor and engineering partner, is helping to come up with creative solutions to address customer pain points. The result is a transportation solution unlike any other. Once we clear the final hurdles to operate AVs that are safer than a human driver, Cruise will be ready to introduce Origin to the world.



## Shared Value

Cruise's autonomous electric vehicles also will be shared, a further reflection of the changing nature of transportation. The world's population, particularly in cities, is growing rapidly. By 2030, the world is projected to have 39 megacities with more than 10 million inhabitants. At the same time, we recognize that most privately owned vehicles spend most of their time unused — and ride-sharing currently represents only 1 percent of vehicle miles driven in the U.S. This presents opportunities to use vehicles more efficiently: decreasing the number of cars on the road, but also increasing utilization rates of those that remain by more people riding in them. Taking this another step, when passengers choose to ride together in shared cars or shuttles, they increase efficiency and reduce congestion even further.

Our customers not only understand these benefits — they are demanding them. There is a new desire for transportation access that doesn't necessarily include traditional ownership models. Although many of those models will remain strong in large parts of the U.S. and around the world, people everywhere, and especially the growing population in urban areas, are clamoring for a different type of relationship with transportation. This shift provides us with a tremendous opportunity to offer personalized, premium, on-demand solutions that connect customers to the people, places and moments that matter to them.

We did that through our Maven suite of mobility solutions, which ceased operation in April 2020, in part due to challenges associated with the COVID-19 pandemic. We gained extremely valuable insights from operating our own car-sharing business. Learnings and developments from Maven will go on to benefit and accelerate the growth of other areas of GM's business.

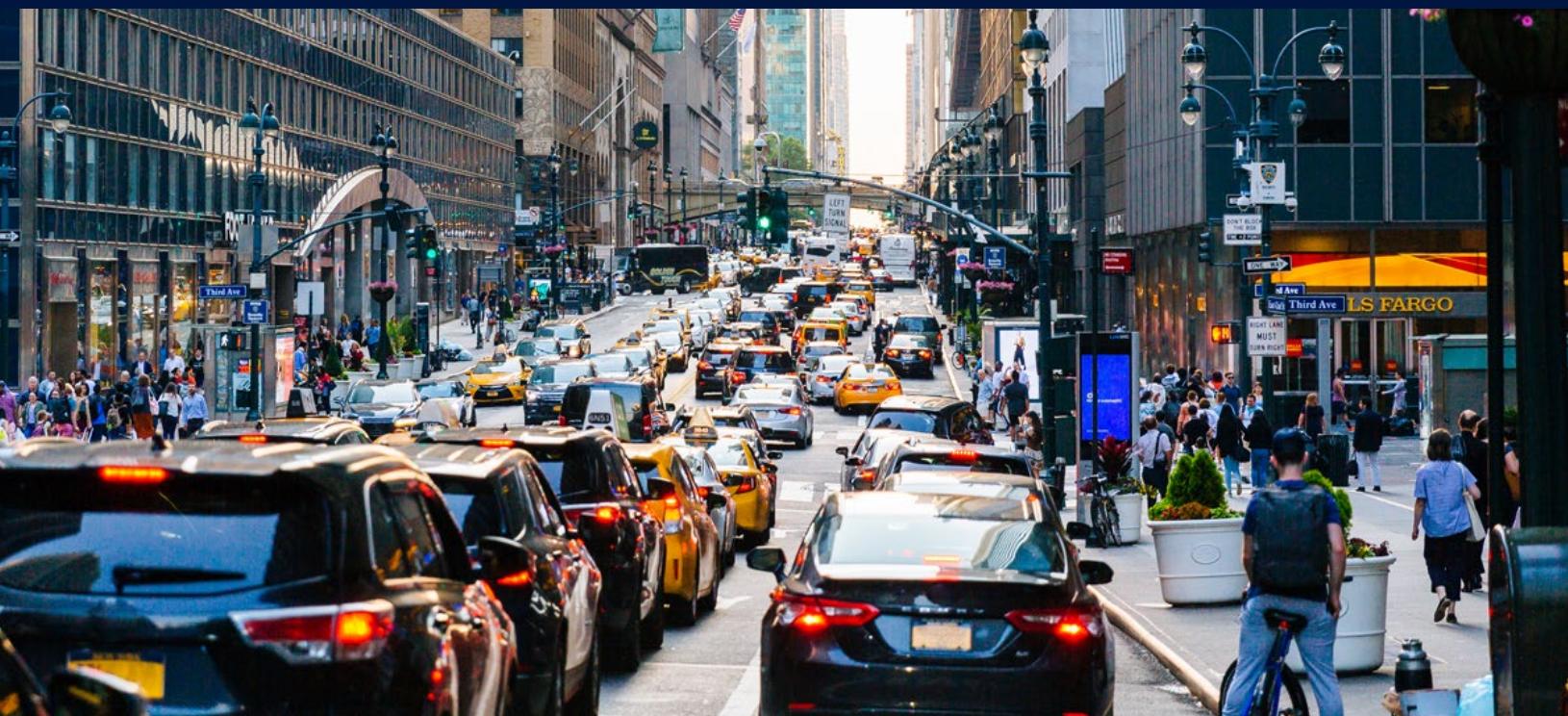


2019 sustainability report  
transforming mobility

Reimagining our urban landscapes means healthy, creative dialogues across multiple stakeholder groups — starting with people and leveraging the expertise in governments, companies and nonprofits. We solidified our commitment to developing the future of cities by signing the Shared Mobility Principles for Livable Cities, a framework developed by a working group of international NGOs to guide urban stakeholders and decision-makers. We have also experimented with peer-to-peer car-sharing, and by deploying electric vehicles in high-mileage, shared-used applications. We are advancing a mobility model that is helping make cities more livable and sustainable.

## MOBILITY CHALLENGES FOR THE ROAD AHEAD

- Working toward harmonized regulation to address the advent of commercial autonomous technologies
- Ensuring adequate capital to continue the development and commercialization of autonomous technologies
- Building trust and understanding among consumers in autonomous technology and its benefits
- Developing profitable shared mobility service models
- Addressing associated cybersecurity risks as increased and more complex vehicle software is deployed



## The Role of Public Policy in Addressing Congestion

Because vehicle crashes are responsible for only a portion of all congestion, GM also recognizes the potential contributions of policy-driven approaches to meeting this challenge. Many cities and states are already exploring these policies, finding that there could be a variety of ways to improve mobility for their residents.

For example, cities across the United States are supporting new mobility options and reinvesting in multimodal transportation networks to ease gridlock on streets and highways. Transit services, shared-mobility platforms, such as carsharing and ridehailing, and micromobility solutions like e-bikes can relieve streets and highways of vehicles and give people choices for travel that better fit their trip type and needs.

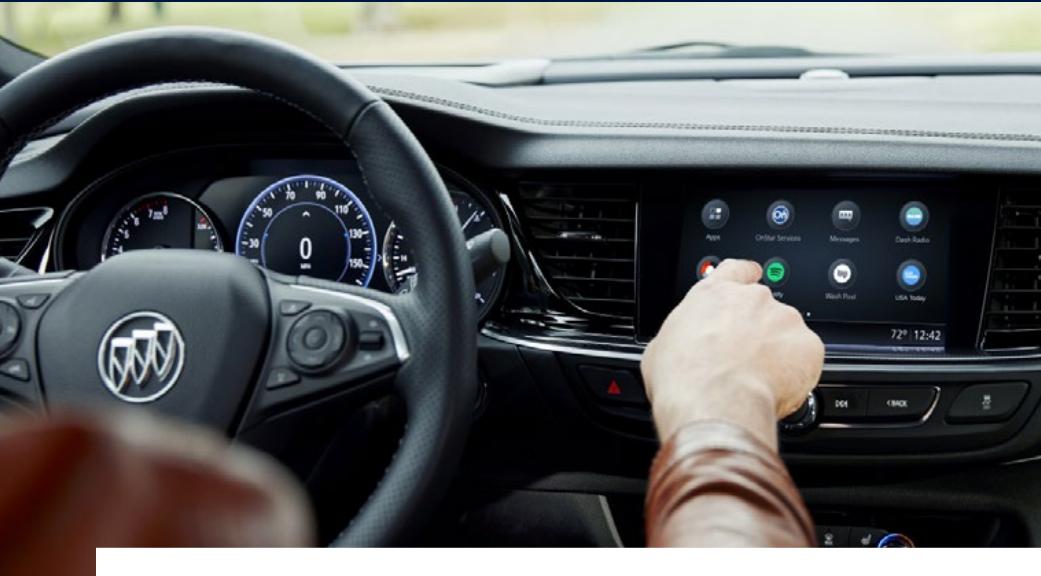
Ultimately, constructing high-capacity rail and bus services, building bike lanes and developing forward-looking regulatory structures that support shared and micromobility operators can be part of an all-of-the-above strategy that complements driving, eases the introduction of new technologies and services, and facilitates less congested travel across all modes. That is why GM has advocated for regulatory frameworks that support carsharing and e-bike ventures, and why GM sees value in investments in broader transit and transportation infrastructure.

Some cities are also beginning to explore policies that manage transportation demand, including congestion pricing — charging a flat or variable fee to vehicles that drive in a specific area or zone. Evidence from early-adopter cities around the world suggests that congestion pricing can be effective in reducing traffic volumes and delays and increasing average travel speeds. In 2019, New York City

became the first U.S. city to pass a congestion pricing law, and this will be a valuable test case for the policy in North America. Other options, such as telecommuting incentives, are also being proposed in Massachusetts and elsewhere. As part of a comprehensive approach that includes new technologies, demand management through pricing and incentives — when strategically and thoughtfully implemented — could play a valuable role in mitigating congestion in urban areas.

GM has a well-established track record of engagement with innovative city and mobility initiatives, from the Smart Cities Challenge in Columbus, Ohio, to targeted carsharing partnerships in underserved neighborhoods in Detroit. As cities continue to explore ways to tackle congestion in their communities, GM looks forward to building on this foundation through partnerships and constructive dialogue with stakeholders, pilot projects and other efforts that seek to leverage public policy to realize our vision of a future in which people can enjoy the freedom, convenience and comfort of vehicle use in cities free of congestion.

This sets the stage for deploying connected vehicle technology to improve safety and relieve congestion by allowing vehicles to communicate with one another and the infrastructure. Equally important, this has provided us with an understanding and appreciation that offering a vehicle with the latest technology is only meaningful when it is seamlessly integrated, as well as consistent and relevant to our customers.



## LEADING IN CONNECTIVITY

The freedom and opportunity that vehicles have provided over the past 100 years has come with often adverse effects in the form of injuries, emissions and congestion. Now, transformative innovations — autonomous vehicles, combined with electrification, sharing and connectivity — are changing the nature of transportation and our relationships to the vehicles that move us.

### Cybersecurity Risks

Connectivity is a foundational enabler of a future that includes on-demand car sharing and AVs. GM's two decades of experience building our OnStar in-vehicle safety and security service, and our diagnostic, navigation and connectivity services, make us the most connected automaker on the planet. Today, we provide Connected Services and OnStar to 20 million members, with OnStar receiving an average of nearly 150,000 phone calls per day. We are balancing these advances in technology with attention to the potential risks they pose. For example, continued evolution of connected car technologies, the expansion of the vehicle ecosystem and advent of autonomous driving capabilities elevates cybersecurity concerns to another level of complexity and risk. In recognition of these developments and their potential impact on our business, GM has a cybersecurity governance structure at the highest levels of the company. Oversight responsibilities for cybersecurity programs and risks lie with the GM Board of Directors, which has a Cybersecurity Committee. At the operational level, cybersecurity management sits in a Global Cybersecurity organization that encompasses both product and corporate cybersecurity functions across all areas of the business.

Vehicles that incorporate next-generation battery-electric technology, as well as active safety, autonomous, infotainment and connectivity features, will require increased bandwidth and computing power. To meet these needs, GM has introduced an all-new electrical platform, or operating system, consisting of software and hardware that will enable all advanced in-vehicle technologies to run seamlessly and in conjunction with each other. The platform went into production in 2019 and should be rolled out

to most vehicles within GM's global lineup by 2023. Cybersecurity is a pillar of the new architecture, with added protective features at both the hardware and software levels. GM's Product Cybersecurity organization, one of the first such groups among major automakers, provides the necessary expertise to protect against unauthorized access to vehicles and customer data.



2018 GMC Canyon SLT Crew Cab with 4G LTE Wi-Fi.

## Privacy Protection

We rely upon information technology systems and manufacture networked products, some of which are managed by third parties, to process, transmit and store electronic information, and to manage or support a variety of our business processes, activities and products. Additionally, GM collects and stores sensitive data, including personally identifiable information of our customers and employees, in data centers and on information technology networks. For these reasons, robust privacy policies and processes are critical to protecting our business and our stakeholders.

GM's Privacy Office publishes a [Global Privacy Policy](#) that covers all operations, and we have a Third-Party Information Security Requirement Exhibit and Privacy Exhibit required for all contracts that involve personal information (PI) or sensitive GM information. Our contracts lay out expectations for lawful compliance with data protection and privacy laws and regulations. In addition, our Board of Directors has approved the adoption of Global Privacy Principles, and GM continues to be committed to the Auto Alliance Consumer Protection Privacy Principles for Connected Vehicles.

### Privacy Program

The Privacy Office has a privacy program framework that focuses on policies, procedures, tools, guidance and training. This framework also includes a Privacy-by-Design program that requires all data-dependent initiatives to receive a privacy-focused consultation through its life cycle. The privacy program and office reside with our legal staff, and additional non-legal resources are leveraged on a functional, regional and product/program basis to instill best practices across the enterprise. In certain cases, external reviewers have been engaged to ensure use of industry best practices.

Through our collaborative practice, we ensure that the collection, use and sharing of employee and customer personal information is reasonable, appropriate, safe and secure. Our greatest resource in protecting personal information is our employees. Privacy compliance is part of GM's annual training, which emphasizes that the company has invested heavily in policies, procedures and systems to keep information private.

### Privacy Practices

Our Information Security program is aligned to the National Institute of Standards and Technology Cyber Security Framework and ISO Standards and includes elements to protect the confidentiality, integrity and availability of information. We have a robust, global Information Lifecycle Management (ILM) Policy and record retention schedule which applies globally to all GM employees and other individuals or entities (e.g., contract worker, purchased services, etc.) that create or manage GM records. The ILM Policy requires that we properly retain only those records needed to meet business, fiscal and legal requirements.



Drivers can employ Alexa by using simple voice commands.

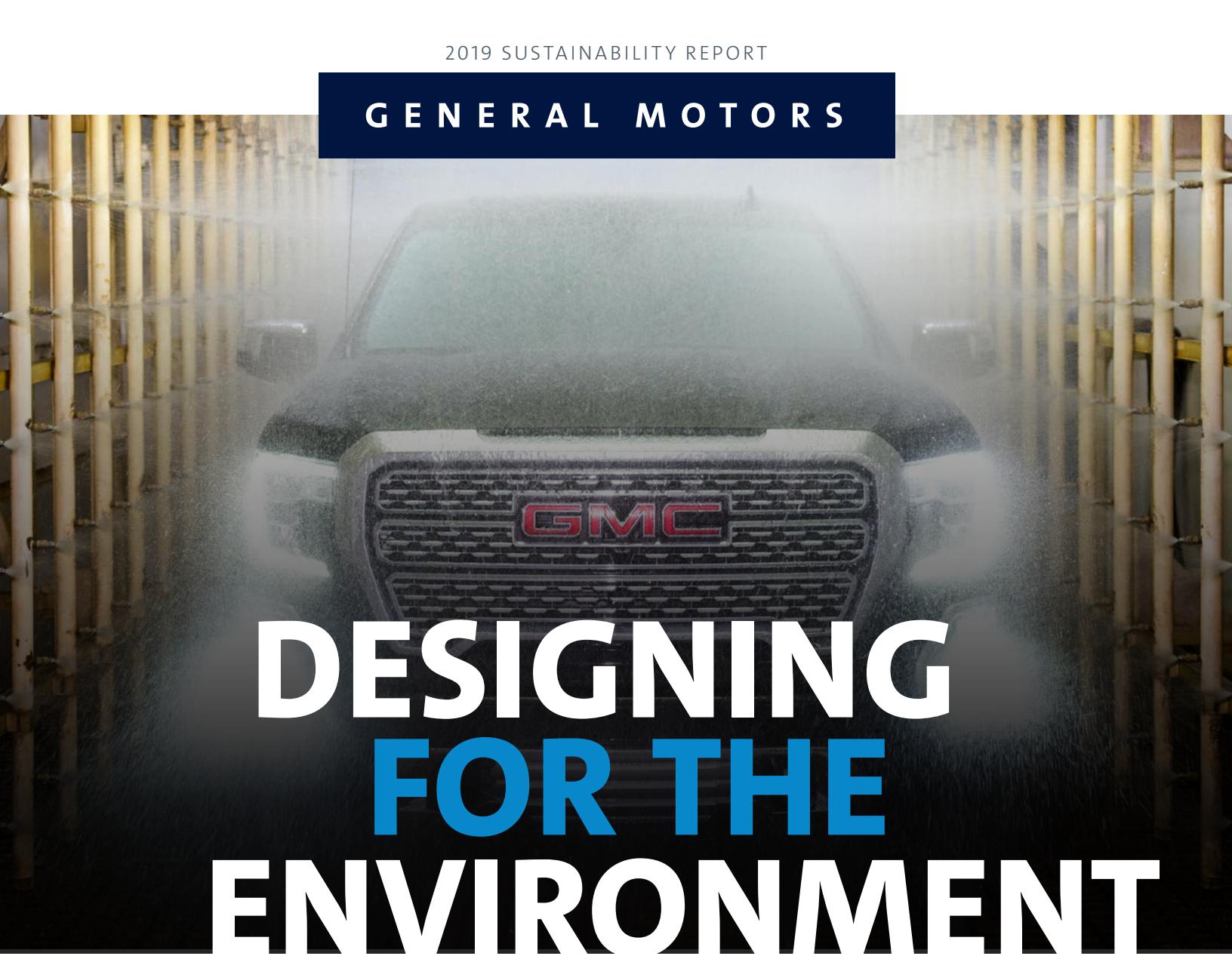
GM requires an online Privacy Impact Assessment to be completed, reviewed and approved by a Privacy Office member prior to the implementation of any new product, service or process, or any change to the foregoing, involving the use of personal information. Additionally, Information Security Risk Management conducts a personal information risk score for systems containing personal information. Systems with high risk are required to have additional information technology controls.

### Incidents

GM has a robust process of reporting an incident involving possible wrongdoing, a violation of GM's Code of Conduct — Winning with Integrity, an IT or other cybersecurity event, personal information incident or other concerns. This includes reporting through our toll-free GM Awareline hotline, and a robust process for reviewing all alleged incidents. An employee who violates our Privacy Policy or Code of Conduct may be subject to discipline, including warnings, suspension with or without pay, and/or termination of employment.

### Customer Privacy

GM publishes [privacy statements](#) publicly, such as on our corporate and [OnStar](#) websites. We utilize an opt-in approach where legally required or appropriate based on the nature of the data collected and its intended use. Customers have the ability to opt out. GM complies with all regulations, such as General Data Protection Regulation and the California Consumer Privacy Act. We honor requests under these regulations to access data, make corrections and delete. In addition, we do not allow the use of customer personal information for secondary usage if it is not disclosed in the Privacy Statement or otherwise consented to by the customer. In 2019, we did not have any material customer privacy complaints.



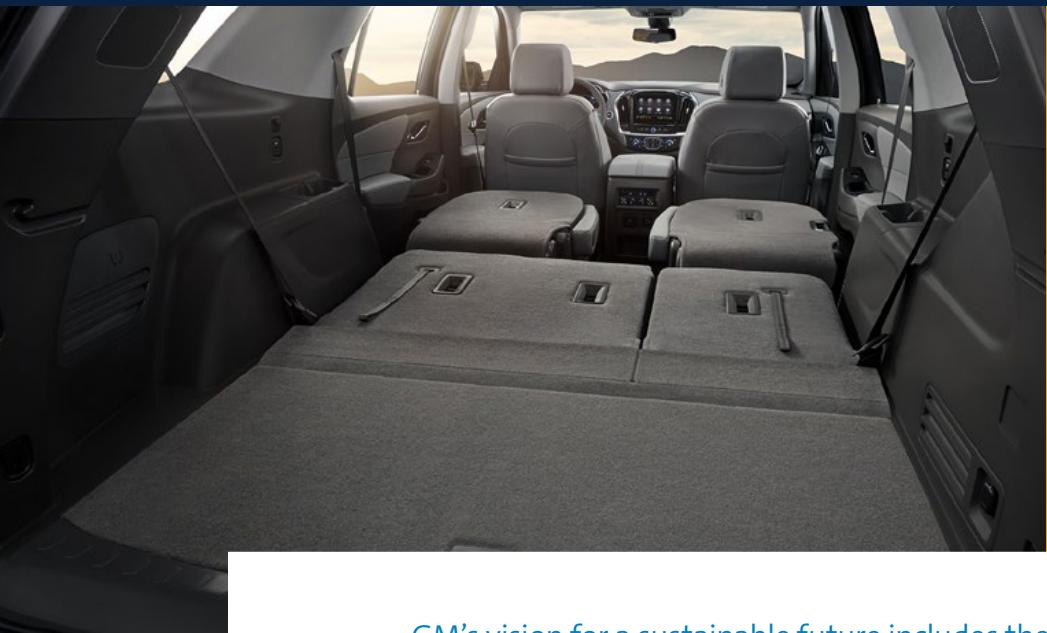
# DESIGNING FOR THE ENVIRONMENT

## KEY TAKEAWAYS

- GM drives efficient use of resources by using recycled or recyclable content in our products and ensuring materials can be repurposed at the end of a vehicle's life.
- In early 2020, we announced a goal to achieve at least 50 percent sustainable material content in our vehicles by 2030.
- We are embracing a circular economy by finding new purposes — and often, new value — for the waste generated by vehicle manufacturing.
- While GM's operations are not overly water intensive, we are committed to preserving water as a natural resource — both in terms of quality and use — across our operations.

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  - External Engagement and Partnerships
- 86 Water Stewardship**
  - Working on Behalf of Our Environment



## RESOURCE EFFICIENCY

GM's vision for a sustainable future includes the efficient use of resources such as raw materials and water.

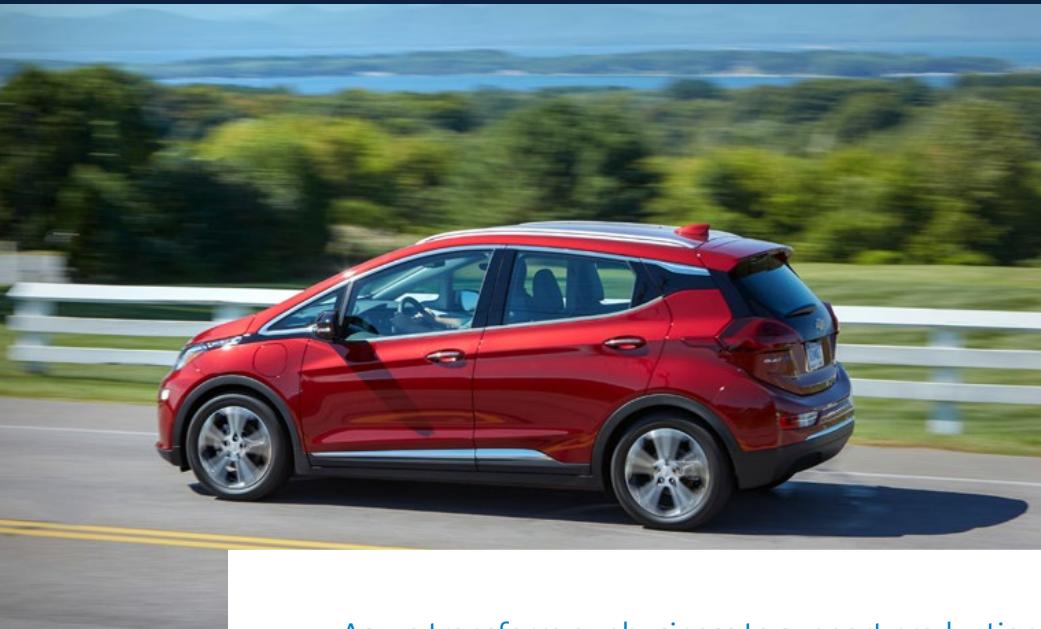
With the automotive industry being material intensive, responsibly managing the materials used in our products and minimizing waste are important priorities. We drive efficiency in several ways:

- Using sustainable materials, such as those with recycled, bio-based or renewable content as inputs into our products.
- Reducing, reusing and recycling the resources used to manufacture our vehicles.
- Ensuring those resources can be further repurposed at the end of a process or a vehicle's usable life.
- Adopting construction and manufacturing processes that minimize the use of energy and water. (Please see the Reducing Carbon Impact section on [page 33](#))

These actions can reduce emissions at the onset by avoiding the mining and processing of virgin materials. They also keep waste out of landfills and allow us to find ways to create new value — the essence of the circular economy. Shifting toward more sustainable product materials also aligns with GM's zero-emissions vision. With our suppliers as partners, we are focused on developing materials and processes that reduce CO<sub>2</sub> emissions, waste and water usage. We start with the sourcing of our parts and components through vehicle manufacture and include emphasis on reducing waste sources.

## DESIGN CHALLENGES FOR THE ROAD AHEAD

- ➔ Working with suppliers to identify and develop more sustainable materials for the thousands of parts that comprise current and future vehicles
- ➔ Ensuring that the replacement of conventional materials with more sustainable ones does not compromise vehicle safety or performance
- ➔ Identifying end markets for recycled materials, despite the transition in the demand and supply fundamentals of the global commodities market
- ➔ Finding effective practices to manage water use efficiently at operations in water-stressed locations



## SUSTAINABLE MATERIALS

As we transform our business to support production of electric vehicles (EVs), we are rethinking how those vehicles are made and designing them with a mindset focused on reducing environmental impacts.

The most environmentally friendly vehicle is not only electric — it's also circular. Circular economy is growing in importance to our customers. According to a 2019 survey by Accenture, more than half of consumers are willing to pay more for sustainable products designed to be reused or recycled. Beyond the environmental benefits, designing sustainable vehicles may result in increased customer loyalty.

We already enable, by mass, more than 85 percent reuse or recycling of our current vehicles at the end of their life. In early 2020, we announced a new commitment to sustainable sourcing of the raw materials necessary to support our product portfolio, including EV deployment on a commercial scale. By 2030, we aim to achieve at least 50 percent sustainable material content in our vehicles, measured by total vehicle weight. We have defined **sustainable materials** as those that do not deplete nonrenewable resources or disrupt the environment or key natural resource systems. In addition to this goal, we will continue to enable 100 percent reuse or recycling of EV batteries at the end of life. Focusing on each part of the equation — a material's origin, its design into a part, and that part's destination at the end of vehicle life — allows us to get closer to achieving circular economy principles. Through life cycle analysis (LCA), we can show a clear connection between the materials used in our products and our environmental impact. GM is investigating LCA tools that could help us make objective decisions about what materials have the best possible footprint.

With thousands of parts that go into a vehicle's design, work toward our sustainable materials goal is complex and spans many GM functional areas, including materials engineering, product engineering, global purchasing and supply chain, sustainable workplaces and more. Initially these functional areas focus on metals, plastics and textiles material categories. Every component

within these categories is being examined to determine what can be done differently or better. Strategies might include increasing recycled content or using bio-based materials.

Examples of sustainable materials used in GM vehicles include interior components made from a synthetic suede material containing recycled content, which is offered in the 2020 Cadillac CT4, Chevrolet Corvette, Camaro, Traverse and Blazer. We are also exploring the potential use of yarn made from recycled plastic bottles that do not compromise quality or design compared to nonrecycled plastic. With support from our supply base, the Color and Trim Design team has made a commitment to use at least 35 percent recycled plastic yarn in all future seat insert fabrics, and 100 percent recycled yarn in seat bolster fabrics, overhead fabrics, floor carpets and floor mats. Given GM's global scale, this means significant amounts of plastic will be diverted from landfills.

Key to this work is ensuring that as conventional materials are replaced with more sustainable materials, vehicle performance remains constant in every type of driving condition and for the life of the vehicle. Once a sustainable material is identified, we must also consider at what point the new material is integrated into the cadence of vehicle design and production.

Beyond these examples, we are continually researching new and innovative materials that will help us mitigate our environmental impact while driving customer-focused design and innovation. Plant-based materials, bio-fabricated materials, regenerative farming and lower-impact leather tanning practices are among the emerging practices and materials that may someday be incorporated into GM products.

## Sustainable Packaging

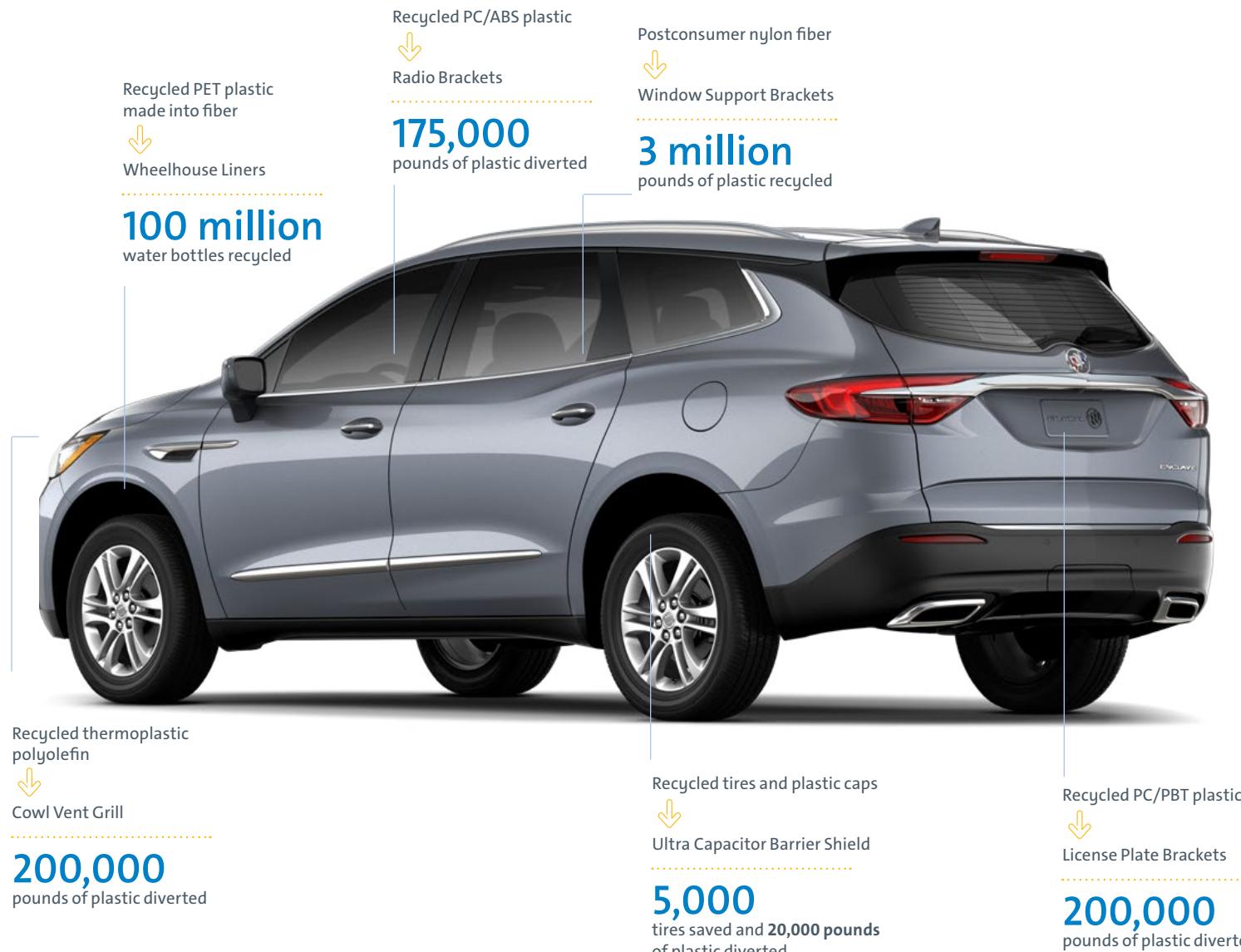
We also have established a companion sustainable materials workstream that is dedicated to sustainable packaging. A multidisciplinary group has been tasked with developing a packaging goal and collecting data to better understand GM packaging specifications and requirements. The group is working closely with suppliers and external partners to innovate current practices and embed circular economy principles in packaging procurement and design. The current priority for this new group is to develop our road map for success that takes into account the full life cycle of our packaging and carbon analysis of the various opportunities.

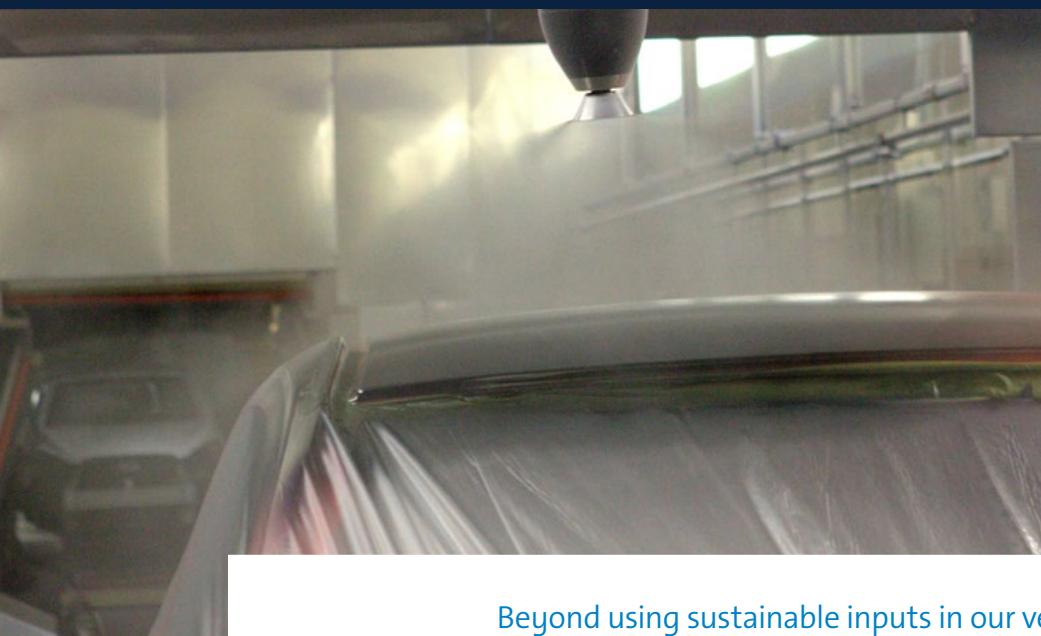
As part of this work, GM has partnered with WestRock as the preferred supplier for all consumer-facing packaging. WestRock prioritizes recycled content input in their sourcing, averaging 35 to 55 percent recycled content in corrugated boxes and 100 percent recycled content in coated boards. Any virgin material used in our packaging going forward is certified by the Sustainable Forestry Initiative (SFI).

A recent packaging success story has been around the ventilators, masks and face shields that GM is producing in response to the COVID-19 pandemic. Working with Menasha as our supplier, the five packaging boxes used for these products contain 33 to 95 percent recycled content with remaining materials coming from SFI-certified sources.

## Recycled Content in GM Vehicles

GM is working to increase the sustainable materials used to make our vehicles. Here's some of the progress we've already made. While these materials are not all available on all vehicles, each improvement provides valuable insights and brings us closer toward our goal.





← We often reduce or eliminate waste streams by redesigning manufacturing processes.

## WASTE MINIMIZATION

Beyond using sustainable inputs in our vehicles, there are other ways we can reduce the volume of waste we generate and the impact we have.

GM has made steady progress in reducing our operational waste intensity over the past decade. As we approach the terminal date of our current 2020 manufacturing goals, we are formulating a new goal to build further upon progress to date. Our aspiration is to become the first zero waste automotive company.

As in the past, innovation and the adoption of new technologies will help us lead in this area. Our Bowling Green Assembly paint-shop system, for example, is using limestone to capture overspray, a practice that eliminates more than 400 tons per year of paint sludge waste. Likewise, GM's design team donates scrap leather, vinyl and synthetic suede to the College for Creative Studies to be used by fashion students, and donates Corvette leather scraps to Pingree, a Detroit business that employs veterans with meaningful work. Pingree's team of makers hand craft this leather into custom Corvette-branded accessories.

At our Global Design Center in Warren, Michigan, the extended design team collects and cleans clay that is left over from creating vehicle models, which help designers more clearly visualize and refine the look of a finished product. Using metal detecting wands, the team meticulously removes any metal pins and processes the material into a new mixture. In one hour, six team members can completely strip one midsize vehicle model of salvageable clay, preventing it from entering a landfill.

**25**  
awards for environmental stewardship received by GM global operations in 2019

Sending less waste to landfill also extends to our construction projects. In 2019, GM recycled about 14 million kilograms of concrete and uncontaminated asphalt, 27.5 million kilograms of metal scrap and 216,000 kilograms of plastic generated during construction. The recycled material was sent to accredited waste facilities for regeneration. Additionally, GM global facilities reused 11.5 million kilograms of concrete and uncontaminated asphalt.

### Reduce Waste Intensity by 40 Percent



Our Sustainable Materials Management function is allowing us to continually reduce waste through design, materials selection and repurposing of items that would otherwise go to waste.

### Reach 150 Landfill-Free Sites



The closure of the Detroit Renewable Power facility, which converted waste to energy, negatively impacted our landfill-free plants in Michigan and Ohio.

Reducing waste is not only good for the environment — it benefits GM's bottom line. Clay recycling efforts, for instance, saved the company nearly \$1 million over a three-year period. We also participate in the Materials Marketplace, an initiative of the United States Business Council for Sustainable Development. The project, which brings together many companies within the United States and other areas of the world, is intended to help participating companies identify ways to reuse or exchange undervalued materials through an online database and establish new circular supply chains. By participating in the Marketplace, GM and other companies reduce their operational costs from sourcing and disposing of materials at each end of the product life cycle, lower the environmental impacts of our operations and have the opportunity to share and learn about best practices with peers in the automotive industry and other industries.

## Employee Engagement on Waste Reduction

Because best practices account for so much of waste minimization efforts, environmental engineers in both manufacturing and nonmanufacturing operations receive state-of-the-art zero waste training. We also have introduced a company-wide sustainability course to support our new sustainability goals and launched the GM Sustainability Awards to recognize partners that contribute most to a sustainable future.

Employees can also get involved through Upcycle, a grassroots startup within Global Design Operations that applies design thinking to improve the sustainability and health of our community, campuses and products. The group's accomplishments include reducing single-use packaging and condiments at our Design Center all-people meetings and starting a program to reuse coffee grounds as garden fertilizer. Other ongoing initiatives include encouraging employees to swap their personal waste bins for a potted plant, hosting a competition to design artwork for new reusable coffee cups, and exploring the possibility of offering only compostable and recyclable packaging within the Design Center's food services. Upcycle's ultimate goal is to empower all employees to make informed decisions about waste disposal.

Another example of how GM employees are finding creative ways to reduce waste is the composting program at the Renaissance Center in Detroit, where GM is headquartered. All office tenants and restaurants at the 5.5-million-square-foot complex now participate in the program, separating their food waste into designated bins placed on each floor. The scraps are used to create nutrient-rich compost that is used in urban gardens throughout the city, including GM's Beaubien Garage rooftop garden. Produce from the Beaubien garden is donated to the local restaurant Andiamo Riverfront, which makes donations equal to the food's value to an organization that serves Detroit's homeless. In 2019 alone, 33,384 kilograms of scraps were composted at the Renaissance Center.



## External Engagement and Partnerships

GM is a signatory to the EPA America Recycles Day pledge. As part of our commitment to reduce waste generation, we collaborate with EPA and other pledge signatories to enhance the nation's recycling system, creating a sustainable path for a circular economy to protect the environment. To do so, we are working collaboratively with other companies in three groups to promote education and outreach, strengthen secondary materials markets and enhance measurement. We also are partnering with the U.S. DOE to collaborate on their zero-waste pilot program, which will provide methods for data tracking and benchmarking.

Another partnership, NextWave, is a collaboration between a group of companies and the nonprofit Lonely Whale Foundation to develop the first commercial-scale, ocean-bound-plastics supply chain. NextWave will develop a model that creates circularity for plastics, a resource that is largely being lost to the environment, where it not only loses value — it does harm. Having diverted 850 metric tons of plastic from oceans in just two years, the group hopes to keep more than 25,000 tons of plastics from entering the oceans by 2025. As a founding member of NextWave, GM has been inspired to turn off the tap on ocean-bound plastics by turning them into valuable lasting goods, including vehicle components and packaging applications. We are working with suppliers to make recycled yarn for our fabrics specifically from plastic waste that is intercepted before it reaches oceans.

## Symposium Shows that Sustainability is for Everyone

As our company transforms to bring about a zero-emissions future, it's more important than ever to understand and apply sustainability principles. Whether looking for ways to reduce waste in a manufacturing or office environment, developing energy efficient processes, participating in recycling programs, or living sustainably at home, there are choices everyone can make to contribute to our shared vision.

To bring this message to life for employees, as well as to recognize World Environment Day, the Sustainable Workplaces team held an inaugural Sustainability Symposium at the GM Global Technical Center (GTC) in Warren. We spread the word through building signage with announcements on the GTC newsletter and GM's intranet. The response exceeded our expectations. More than 350 employees attended, making for a standing-room-only crowd during the event. The Symposium included lightning talks by GM vice presidents including Steve Kiefer, Ken Kelzer and Dane Parker, a "scavenger hunt" through GM's 2017 Sustainability Report, and exhibits of sustainable materials and waste reduction achievements across the company.

At the end of the event, participants reflected on actions they would take to be more sustainable at work. These handwritten reflections, combined with responses to a post-event survey, demonstrated that GM employees understood our purpose loud and clear. Most participants said that they learned things at the symposium that they can apply to their daily work, and were more aware of how their job connects to sustainability. We plan to hold more in the future to further embed the value of sustainability into GM's culture.



## Tackling Problems with Out-of-the-Box Thinking

Tough problems often require outside perspectives. That's the idea behind TACKLE, a GM-wide program where employees collaborate to solve complex challenges. Organized by iHub, GM's internal incubator, TACKLE Challenges encourage employees to tap into their creative thinking and problem-solving skills. Employees can work alone, in teams, across functions and even across campuses.

Past challenges have focused on EV adoption, console storage, windshield wiper design and more. In 2019, we held our first Sustainable Workplaces Tackle, which focused on waste reduction. The prompt for employees was broad: "What can you do in your role to reduce, reuse and recover? What opportunities do we have to reduce waste and create a positive environmental impact with our individual spheres of influence?" The Tackle launched at GM's first Sustainability Symposium. The response was overwhelming. More than 260 participants across 11 global locations submitted 124 solutions for consideration. The proposed solutions crossed functional areas, including additive printing, sustainable materials, process changes and facility improvements.

Over a two-month period, the ideas were tested and prototyped. Ultimately the 124 solutions narrowed down to five finalists who presented their projects to GM leaders. The winner was Laetitia Lopez, a creative designer in Color & Trim, who proposed repurposing scrap leather into accessory parts. We are currently exploring how to turn this innovative idea into a sustainable reality.



## WATER STEWARDSHIP

Water is another valuable resource that we must manage efficiently.

While GM's operations are not overly water-intensive, we do use water in the vehicle manufacturing process and make it available for the people in our facilities.

We are committed to responsibly using water while taking actions that preserve water quality and conservation across our operations, in our supply chain and in the communities in which we operate. Our commitment is underscored by being named to CDP's Water A List.

GM has committed to reduce the water intensity of its operations by 15 percent compared to a 2010 baseline. Our commitment beyond 2020 is to continue this work in response to the interconnected risks of water scarcity, pollution and climate change. Water usage is managed on a local basis, with each facility working toward its own targets for year-over-year improvement. Innovative approaches have allowed facilities to continue production without disruptions, even in water-stressed areas. For example, at our San Luis Potosí Assembly plant in Mexico, GM uses a Zero Liquid Discharge system to minimize the reliance on well water withdrawal. The system purifies and transforms wastewater into reusable water for the facility's paint and machining processes, as well as irrigation.

Local facility knowledge provides information on water supply impacts for current operations, and we engage in the use of WRI Aqueduct, tools that map water risks such as floods, droughts and stress, using open-source, peer reviewed data, for future forecasting. We mitigate risks in current operations with either alternate supply or water reuse working with local utilities. GM engages with over 300 suppliers through CDP Water Supply Chain and other organizations like AIAG.

Going above and beyond, many employees volunteer with their site's local watershed. For example, employees in Flint and Grand Blanc are located within the Flint River watershed, and they participate in river clean-up events and storm drain stenciling so that people know where their neighborhood drains go.

### Reduce Water Intensity by 15 Percent

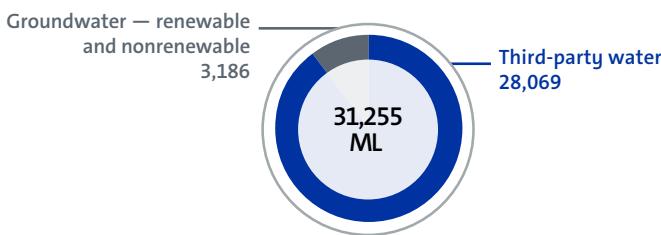
M3/vehicle



We kept water intensity increase to less than 1% in 2019 compared to 2018 with extreme water conservation, and began Water Treasure Hunts to find more opportunities. We plan to use Water Performance Contracting in 2020.

### Total Water Withdrawal from All Areas, by Source

(in megaliters)



Water from 3rd parties or Municipal systems provides 90% of use in our operations



## Working on Behalf of Our Environment

General Motors completed 263 outreach events globally in recognition of Earth Day, World Environment Day and Arbor Day, in addition to a number of watershed restoration and other environmental outreach projects. These events resulted in 23,629 trees planted globally, 1,700 seedlings donated and 75,378 kilograms of waste recycled. Among the highlights were two large electronic donation events in Bedford, Indiana, and in Tonawanda, New York. The electronic donations included CRT and flat panel televisions, VHS players, DVD players, speakers, computers, laptops, computer peripherals items such as printers and scanners, electronic games, cell phones and more. The Tonawanda donations amounted to 140,000 pounds of electronics that filled seven trailers and that generated approximately \$1,000 on behalf of the Tonawanda Youth Board and Football.

Meanwhile in China, 2019 marked the fifth year of SAIC-GM's Drive to Green Environmental Protection Public Welfare Platform. The platform organizes practical activities, such as tree plantings and beach cleanups, to realize its goal of "everyone participates, everyone promotes and everyone benefits." Since 2015, the platform has launched 650 environmental protection programs with the involvement of over 10,000 volunteers.



# SUPPORTING SUPPLIER RESPONSIBILITY

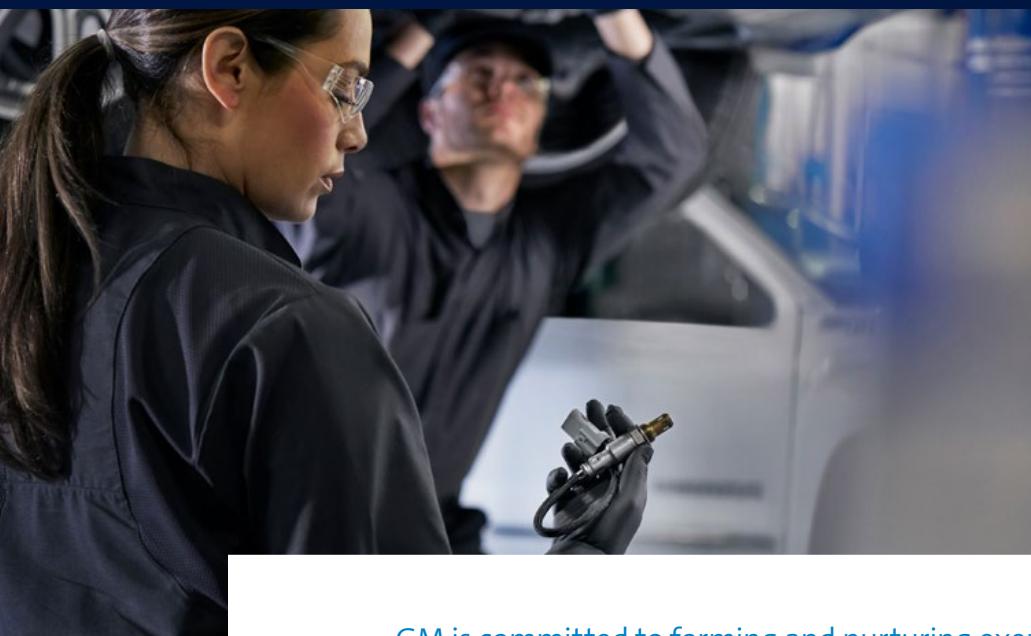
## KEY TAKEAWAYS

- Life cycle analysis reveals that GM's GHG impact is nine times greater in our supply chain than in our own operations — which makes working with suppliers essential to achieving our zero-emissions vision.
- We have several forums for formal supplier engagement, including a Supplier Business Council, Supplier Business Meeting, Supplier Safety Council and internet portal where suppliers can provide and access best practices.
- Our Supplier Code of Conduct and supplier contracts set forth expectations to uphold human rights and demonstrate ethical social, business and environmental practices; major suppliers must verify compliance and share with their own supply chains.
- As electrification and advanced technologies grow in importance to our vehicle portfolio, so too does our reliance on conflict minerals and raw materials such as cobalt. We are actively working to ensure responsible sourcing of these materials.

### IN THIS SECTION:

#### 89 Supporting Supplier Responsibility

- Managing Supply Chain Impact Through Life Cycle Analysis
- Supply Chain Governance
- Integrating Environmental Sustainability in our Supply Chain Function
- Supply Chain Compliance
- Supply Chain Risks
- Human Rights
- Industry Collaboration
- Raw Materials Sourcing
- Localization



## SUPPORTING SUPPLIER RESPONSIBILITY

GM is committed to forming and nurturing exemplary supplier partnerships built on integrity and shared values. Our global supply chain spans thousands of businesses.

We spend nearly \$80 billion annually, representing a wide variety of raw materials, parts, supplies, freight, transportation and other services. These are delivered or provided to manufacturing operations around the world. Purchased goods and services are our second-highest source of emissions and include the life-cycle emissions from parts purchased from our suppliers. Life cycle analysis (LCA) combined with extended input/output analysis allows us to assess suppliers by industry and by tier to identify where the greatest environmental impacts in our supply chain occur and prioritize our resources accordingly. It also helps us monitor and manage sustainability trends within our supply base as automotive technologies change.

Our supply chain is built on strong, transparent and trusted relationships, which are critical to ensuring product quality, availability and affordability for our customers. By seeking to be the partner of choice to suppliers, GM is better positioned to:

- Put the customer at the center of everything we do.
- Develop transformative transportation solutions for industry, environmental and societal challenges.
- Accelerate innovation to bring the newest technologies and innovations to customers.
- Improve our business competitiveness.
- Lower or mitigate business risks.
- Eliminate waste from value streams and deliver defect-free vehicles.
- Address human rights issues.

Despite its great breadth, scope and complexity, we've found that working with our suppliers to improve our mutual performance leads to rapid and significant improvements in our overall impact. As an example, LCA reveals that greenhouse gas (GHG) impact is eight times greater in our supply chain than in our own operations. By working with suppliers to reduce their own GHG emissions, we are able to reduce our overall impact.



3

ranking in North American Automotive OEM-Supplier Working Relations Index®



\$79B

approximate annual supply chain spend



356,000

approximate items and services purchased



15,000

global suppliers



\$3.4B

approximate annual spend with diverse suppliers — Tier I



\$3.3B

approximate annual spend with diverse suppliers — Tier II

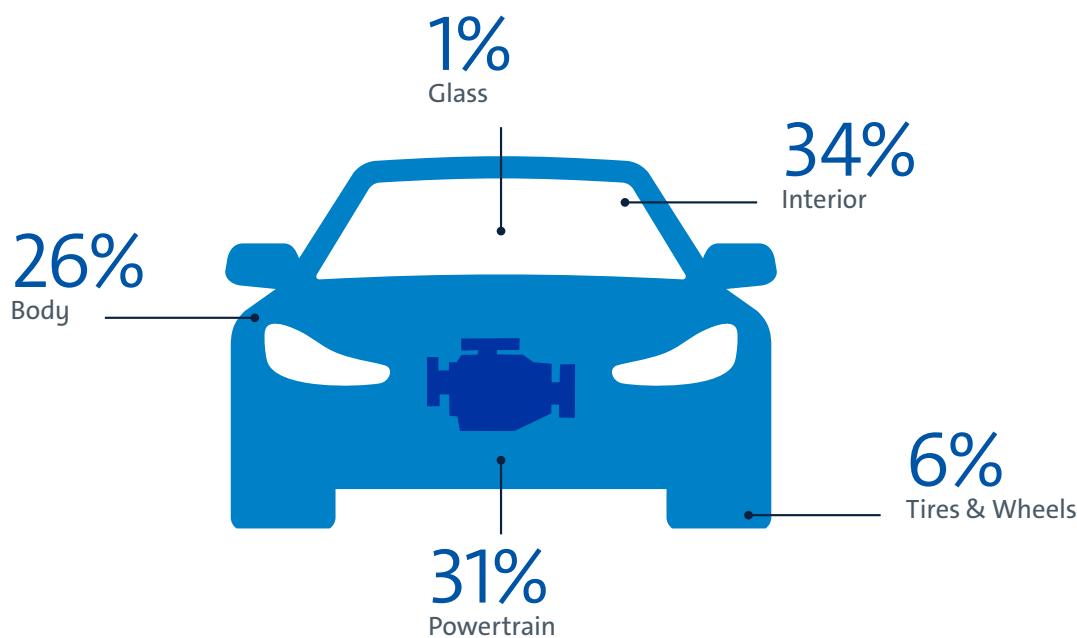
## Managing Supply Chain Impact Through Life Cycle Analysis

GM uses LCA to better understand the activities of our more than 15,000 suppliers worldwide. Purchased goods and services are our second-highest source of emissions and include the life-cycle emissions from parts purchased from our suppliers.

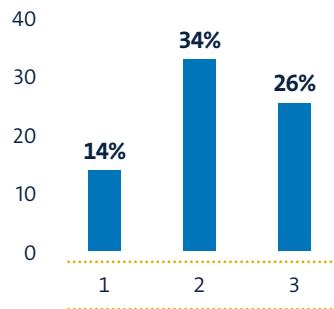
LCA combined with environmental extended input/output analysis, using the US EPA EEIO 1.0 database, allows us to assess suppliers by

industry and by tier to identify where the greatest environmental impacts in our supply chain occur and prioritize our resources. To increase granularity, we performed the analysis at the component level to identify potential opportunities for carbon reduction by the highest intensity of carbon emissions. It also helps us monitor and manage sustainability trends within our supply base as automotive technologies change.

### Environmental Impact by Vehicle Component



### GHG Impact by Tier

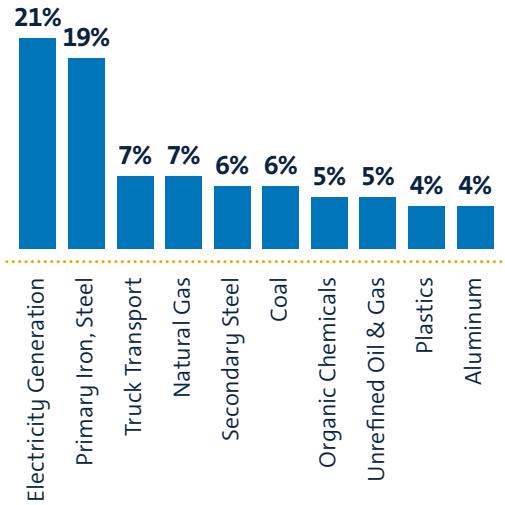


Our largest GHG impact occurs among Tier II suppliers.

Direct parts represent 71 percent of the carbon footprint of a GM vehicle, excluding customer use.

Our largest water impact occurs among Tier III suppliers.

### GHG Impact by Industries



## Supply Chain Governance

Our Vice President of Global Purchasing and Supply Chain (GPSC) is responsible for working with suppliers to accelerate innovation, eliminate waste and deliver superior financial performance, while ensuring that supply chain standards are defined and understood. GPSC is reshaping how the company and our suppliers work together, partner for mutual success and deliver greater value for our customers.

GM's supply chain strategy flows from its Priority Wheel, pictured below. The Priority Wheel is a well-established set of priorities aligning supply chain objectives with customer focus at the core.



Furthermore, it's important to GM to gain supplier input on major process improvements and other issues that may affect them. GPSC has several forums for supplier engagement:

The **GM Supplier Business Council** consists of 17 global suppliers who meet monthly with our GPSC leadership team. Recently, GPSC established a **Sustainability Subcommittee** within the Supplier Business Council. Its purpose is to further our vision of collaborating and innovating with suppliers on sustainability initiatives. The first subcommittee meeting was in May 2020 and was attended by GM's Chief of Sustainability.

- **GM Supplier Business Meetings** are held regularly throughout the year and are globally webcast to our suppliers to gain input and consensus on GM-specific topics. GM Chairman and CEO Mary Barra addresses this group annually during one of its meetings. Suppliers who participate in this webcast represent approximately 80 percent of our annual purchases for parts and services. This group also meets in person once a year.



- The **Supplier Safety Council** serves as a clearinghouse for supplier safety policies and best practices. This cross-functional Council meets quarterly to share lessons learned and best practices across the supply base. Any GM supplier is welcome to attend these forums to learn safety practices that can be shared within their own operations and supply bases.
- **GM Supply Power** is an internet portal used for information and best-practice sharing. GM encourages suppliers to facilitate discussions with their employees on important information posted in Supply Power, including policies, guidelines, standards and reports.
- Our **Supplier of the Year** program recognizes top performers. 133 suppliers were awarded in 2019. Additionally, four suppliers received Innovation awards for outstanding advancements in technology, and four others received Overdrive awards for exemplary culture change leadership.
- Suppliers are provided access to the same communication tools — **AwareLine**, **Speak Up For Safety** and others — that our own employees use to raise concerns.
- Across the globe, we hold various **webinars** and work with third parties to provide **external training** to improve supplier operations, primarily in the areas of environmental management, workplace conditions, ethics and human rights.

## Integrating Environmental Sustainability in Our Supply Chain Function

GM is working diligently to further integrate environmental sustainability into all aspects of our supply chain functions. A cross-enterprise project team was formed to execute our new GPSC Environmental Sustainability vision: We envision a collaborative supply chain minimizing environmental impact and enhancing long-term sustainability for our planet and the communities we serve through innovation and performance.

Goals of the project team include:

- **Increasing sustainable content in our vehicles:** focusing efforts on both sustainable plastics and sustainable metals.
- **Increasing sustainable packaging:** increasing recycled content and density, sustainable packaging materials, packaging material recyclability and returnable packaging viability.
- **Supply chain carbon footprint reduction:** concentrating on Scope 3 emissions to include upstream and downstream logistics and supplier emissions.
  - **Emissions disclosure:** increasing visibility and supplier engagement in carbon footprint reduction through tracking of CDP engagement by select Tier I suppliers.
  - **Sustainable logistics:** increasing shipping container packing density, route efficiency monitoring, supplier emissions reduction and alternative fuels.

GPSC is working toward a corporate goal of 50 percent sustainable content within our vehicles by 2030. In order to achieve this goal, we are evaluating applications for recycled content potential along with other sustainable material options. Once an application is identified as a best practice for recycled content, quotes are requested for new programs with the recycled material as the required material, in addition to long-term viability of the recycled material streams.

A recent example of our team's success in sustainable packaging was securing sustainable packaging requirements for our ventilators, face masks and face shields in response to COVID-19. Packaging ranged



from 33 percent to 95 percent recycled material, with the remaining material coming from ethically forested sources certified by the Sustainable Forestry Initiative (SFI).

Additionally, we partner with a preferred supplier for all consumer-facing packaging. The packaging is, on average, comprised of 35 to 55 percent recycled content in corrugated boxes, and coated boards are of 100 percent recycled material. Any virgin material used in our packaging is SFI certified. In summary, our automotive consumer-facing packaging and ventilator, face masks and face shields packaging is 100 percent from recycled material or SFI certified material and is 100 percent recyclable.

GM has a vision of zero crashes, zero emissions and zero congestion. In order to drive toward a future of zero emissions, the GPSC environmental sustainability team has focused on increasing visibility to our supply chain footprint. We have aligned our Supply Chain CDP list of suppliers to our strategic supplier list, suppliers in heavy emissions industries such as aluminum and steel mills, key logistics providers and energy providers. We are driving toward increasing CDP participation among these selected supplier partners.

## CDP Supply Chain Initiative

CDP (formerly the Carbon Disclosure Project) helps companies better understand and manage climate change, deforestation and water-related risks. This effort goes beyond our own operational footprint to include those of our suppliers. For the past seven years, we have engaged our supply chain by inviting a group of suppliers, around 300 in 2019, to participate in the CDP Supply Chain climate and water programs.

We have recently developed a goal to have 100 percent of strategic suppliers participate in CDP reporting by 2022. This goal seeks to improve the 68 percent response rate in 2019. Increasing the number of supplier responses should enhance our ability to capture Scope 3 emissions details.

To launch this effort, we held two webinars with suppliers in April 2020 that featured Chief Sustainability Officer Dane Parker and Purchasing Director Amanda Willis. Topics included GM's recently announced sustainability goals as well as explanations of how GM will use the data and why supplier support is essential. A CDP representative explained the surveys, system access and submission tips.

Later in 2020, we plan to have one-on-one strategic discussions with targeted suppliers about their emissions results and initiatives to decrease emissions, energy and water usage. These will enhance collaboration between GM and its supply base for further reductions.

### CLIMATE CHANGE RESPONSES

**68%**

supplier participation  
(213 suppliers)

**88%**

report board-level oversight

**87%**

engage in risk analysis

**57%**

report active targets for  
emissions reduction

**58%**

engage their own suppliers

**67M**

supply chain (total company) metric  
tonnes GHG emissions avoided

**\$3B**

total company savings from supply chain  
GHG reduction activity, including logistics

### WATER RESPONSES

**61%**

supplier participation  
(183 suppliers)

**76%**

report water risk assessment

**63%**

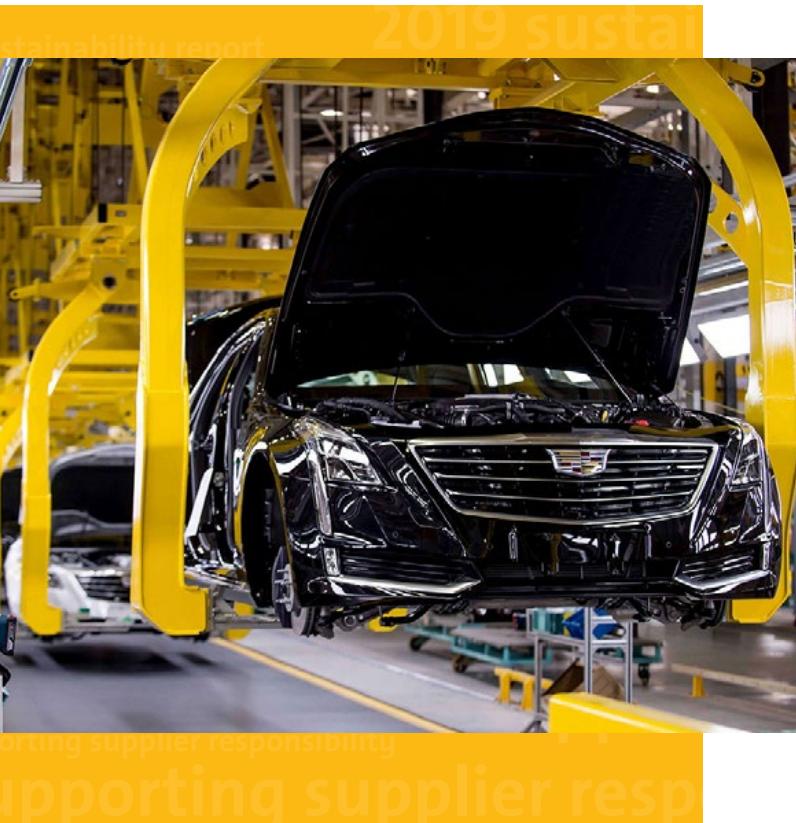
report a water policy

**66%**

report water accounting

**28%**

engage their own suppliers



In addition, suppliers are asked to confirm via the survey that they:

- Have company business practices consistent with GM's Supplier Code of Conduct or a similar code of conduct published by their company.
- Have adopted their own code of conduct or similar document expressing a commitment to conducting business ethically, honestly and in compliance with all applicable laws.
- Have shared GM's Supplier Code of Conduct or a similar code of conduct published by their company with their suppliers.
- Have a safety policy that is consistent with the principles set forth in GM's Supplier Code of Conduct.

Supplier responses to the survey are reviewed and escalated, if required, to remediate risk.

Additionally, we require our direct or Tier I suppliers across the globe to mandate that their direct suppliers meet in-country environmental and safety standards, as well as quality standards. The foundation of this process is our Built in Quality System (BIQS), consisting of IATF 16949 certification and BIQS Metrics requirements. This foundation allows us to cascade quality standards through tiers of our supply base. We aim for all of GM Tier I suppliers to achieve BIQS Level V, the highest level possible. BIQS compliance also compels these Tier I

## How We Enforce Our Policies and Codes of Conduct

On March 1, 2020 the Australian Strategic Policy Institute (ASPI), a respected think tank, released a study alleging that 83 Chinese and multinational companies utilized Uyghurs — a Turkic Muslim minority in China's northwest Xinjiang province — for forced labor in Chinese supply chains. GM, as well as other notable brands, were implicated in the report.

When we become aware of violations to our Code of Conduct, we are committed to responding appropriately, up to and including the termination of business relationships. In this instance, within 12 days of the study release, our Global Purchasing and Supply Chain team investigated the alleged supplier, re-sourced two components to other suppliers and subsequently cancelled the contract.

In China, we have established a strong track record as a highly respected employer that provides an excellent workplace environment for all employees. We will continue to actively monitor and take appropriate steps to ensure that all our supply chain partners in China and throughout the world also meet our high ethical and human rights standards.

## Supply Chain Compliance

We place high expectations of excellence and ethical conduct on our suppliers, who are expected to act in a way that is consistent with our principles and values. Likewise, GM employees must hold suppliers they work with accountable for acting in a manner that is consistent with our employee Code of Conduct, Winning with Integrity.

Our Supplier Code of Conduct and purchase contract Terms and Conditions set forth expectations for ethical social, business and environmental practices. By choosing to do business with GM, our suppliers accept our purchase contract Terms and Conditions. Compliance is mandatory. Our Terms and Conditions clearly state our prohibition against any use of child labor or any other form of forced or involuntary labor, abusive treatment of employees or corrupt business practices in the supplying of goods and services to us. Furthermore, our contracts lay out expectations for lawful compliance with data protection and privacy, wages, hours and conditions of employment, subcontractor selection, anti-discrimination, occupational health and safety and motor vehicle safety.

Our largest suppliers must attest to compliance with our Terms and Conditions, Supplier Code of Conduct, and all applicable laws and regulations. This attestation occurs annually via a supplier compliance survey. In 2019, the number of suppliers included in the survey was just under 600, and we had a response rate of 93 percent. In 2020, we are moving to increase the number of suppliers participating in the supplier compliance survey to more than 3,000.

suppliers to uphold the same quality standards within their own supply bases, since issues here can ultimately affect their quality performance. To support monitoring, suppliers' IATF 16949 certification status has recently been added to our Sourceability Report, which is a compilation of metrics used to inform sourcing decisions and supplier engagement.

## Supply Chain Risks

**100%**

Tier I suppliers assessed at manufacturing site level

GM's approach is to drive tiered supplier visibility as the key to moving from a traditional reactive crisis management approach to one of proactive crisis avoidance.

Over the past few years, we have developed a robust in-house, customized supply chain visibility tool, which integrates GM plants, Tier I suppliers, known Tier II suppliers and logistics nodes. This tool gives us the capability to map geographic locations and relationships across the GM supply chain. The tool also incorporates 24/7 monitoring and Global Incident Mapping (GIM) of potential disruptive events that could impact our supply chain partners worldwide.

Our Global Crisis Management approach has significantly improved our response to disruptive events in the supply chain through the use of innovative tools and real-time data analysis. We monitor for both catastrophic events (e.g., earthquakes, hurricanes) and isolated disruptions (e.g., factory fires, labor strikes), reporting all potential impacts to our Command Center's Global Crisis teams for supplier follow-up. In addition, contracted third-party services provide information regarding financial risk, location risk (i.e., countries, industries and commodities with higher ESG risk), and

interdependency risk between our suppliers and extended supply chain tiers. Risk scores are provided to the Purchasing team, and are factored into the sourcing process and support mitigation plan development for high-risk areas.

Utilizing this due diligence process, GM identified a supplier involved with an environmental incident. After notification from our supply chain visibility tool, GM's Supply Chain Risk Management team reacted swiftly to notify the appropriate GM Global Supply Chain crisis response teams. These crisis teams then had the ability to work cross-functionally with Tier I suppliers, Purchasing, Logistics and Engineering to mitigate the impacts of this potential disruption to the supply of material to GM plants and the environment. This was done by resourcing or rescheduling until the supplier was compliant with governmental regulations.

**45%**

Tier I suppliers identified as critical

Our Global Crisis Management approach supports zero production losses, keeping material pipelines full, reduced premium transportation, alternative supply allocation planning and overall protection of supply for foreseen risks.

Supply chain risks are managed through our broader GPSC risk management functions and processes. All identified key risks are assessed, updated and reviewed by senior leaders at least twice a year. Additionally, GPSC leadership participates in corporate governance forums, including the Board Risk and Cybersecurity Committee, the Senior Leadership communication, oversight, management and mitigation implementation. Strategic initiatives include quarterly risk dashboard updates, annual CEO reviews and annual CEO business unit reviews, annual global risk assessment and Senior Leadership Team interviews.



**427**

GM employees receiving sustainability and working conditions training



**198**

suppliers completing AIAG sustainability and working conditions training



**100%**

supplier contract templates that include ESG factors

## Human Rights

GM's Human Rights Policy is guided by the UN Global Compact, to which GM is a signatory, and is informed by the United Nations Guiding Principles on Business and Human Rights and the principles expressed in the International Bill of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. GM's policy covers employees, suppliers, partners and communities, among others. It includes ethical recruitment practices, diversity, antiharassment, unlawful discrimination, support of women's rights and equal pay, individual privacy, reporting and antiretaliation policies. Suppliers and business partners are expected to comply with laws on safety, individual security, prohibitions on human trafficking and use of underage children, along with laws that ensure freedom of association and rights to collective bargaining.

GM has a zero-tolerance policy against the use of child labor as stated in our Supplier Code of Conduct and Conflict Minerals Policy. GM prohibits abusive treatment to employees and corrupt business practices in our supply base. We aim to support indigenous people and the communities in which we work and source material. As stated in this policy, we "seek to avoid inadvertent adverse economic impact attributable to conflict mineral due diligence activities."

Historically we have relied on extensive trainings as a tool to prevent human rights-related issues from arising, and robust reporting and internal auditing mechanisms to rapidly identify and respond to issues if and when they may arise. We recognize, however, that there is an opportunity for us to become more proactive in identifying potential human rights issues within both our own operations and across our supplier base. Over the course of the year ahead, we intend to conduct an initial human rights saliency assessment in order to more precisely determine how our operations and activities may adversely impact people and communities. Based on the results of this assessment, we aim to work across the business to start establishing new — or integrate into existing — processes for identifying particular sites, geographies and/or demographics that may be at higher risk so that we may be more proactive in preventing issues from arising in the first place.



## Industry Collaboration

An ongoing challenge for us is striving for a sustainable and socially responsible supply chain without adding complexity and burdens to our supplier relationships. Collaboration among auto manufacturers to develop sustainability and social responsibility requirements for our suppliers is a logical approach, particularly given the level of common suppliers among the major automakers. This approach also helps ensure that automotive suppliers are pursuing aligned goals and are not overburdened by duplicative OEM efforts.

GM works closely with many industry and supply chain-focused organizations, including the Automotive Industry Action Group (AIAG), where GM co-chairs the Responsible Materials Work Group; the Responsible Minerals Initiative (RMI), where GM is an active member in both the cobalt and mica subgroups; the International Automotive Task Force (IATF); and the Global Platform for Sustainable Natural Rubber (GPSNR).



Industry collaboration groups are a primary forum for developing and sharing responsible supply chain practices across other automotive OEMs, Tier I and subtier suppliers. For example,

in the U.S., GM employees maintain leadership positions in AIAG. GM provides direct financial support to the organization and leverages its sponsored membership program to enable free membership for small subtier suppliers. This allows key information and tools, such as responsible supply chain training materials, self-assessments and best practices and standards currently available to Tier I suppliers, to cascade to the subtier supply base. We also require all of our supplier quality employees who visit supplier facilities to take AIAG training regarding responsible working conditions, including child/slave labor.

In addition, specific requirements regarding responsible supply chain practices are part of IATF 16949 Quality Standards. These requirements include an employee code of conduct, antibribery policy and an ethics escalation policy ("whistle-blowing policy"). Compliance to the IATF 16949 is a requirement for GM suppliers. Our corporate goal is for 100 percent of our direct suppliers to be compliant; currently, 90 percent have passed this certification.

Furthermore, GM is a founding member of GPSNR. Their Code of Conduct is in alignment with ours in protecting human rights. GPSNR has finalized standards that will help protect human rights, uphold fair business practices, protect biodiversity and water resources and improve yields, and increase supply chain transparency and traceability. Tire suppliers, rubber refiners, NGOs and further upstream actors also held a collaborative role in the group's creation.

# 90%

of more than 4,000 suppliers shipping to our manufacturing plants are third-party certified to IATF 16949 Quality Standard

## Raw Materials Sourcing

As automotive battery capacity expands globally by up to 10 times over the next 10 years, it may be a challenge to maintain access to critical battery materials. We are securing supplies of raw materials so that we can manufacture our new, cutting-edge battery chemistry, which requires cobalt and battery-grade nickel and lithium. We are looking around the globe and throughout the value chain — from mines to refiners to battery precursors — to secure supplies, understand where investment and partnerships can yield benefits and explore areas of untapped value that lowers costs.

When seeking out new partnerships to gain a competitive advantage or meet future demands in product sourcing, we never compromise on our core values. General Motors is committed to upholding human rights across our network of suppliers that support our global operations. In an effort to formalize these values, several policies were created as part of this commitment: the Supplier Code of Conduct, Human Rights Policy and Conflict Minerals Policy. GM understands that long-term success starts with a company's value system and a principled approach to doing business.

### Tracing Raw Materials to the Source

Many of the advanced technologies in our portfolio require the use of minerals (i.e., tin, tantalum, tungsten and gold) that could be mined in conflict-affected and high-risk areas. We utilize a common industry approach to identify the smelters and refiners (SORs) in our supply chain and the origin of their minerals. The Conflict Minerals Reporting Template (CMRT) is the form we send to our Tier I suppliers to identify these SORs which are the pinch point in the supply chain. 3,598 supplier locations were considered in-scope for the CMRT in 2019 and we received responses from 90 percent of these suppliers. Compared to the previous year, we had 3,400 supplier locations in-scope, and had an 88 percent response rate.

## Innovation Through Collaboration

When we innovate new technologies and engineering breakthroughs, it's more than likely we have a supplier at our side. A new airless wheel is the perfect example. Through a joint research agreement, GM and Michelin have partnered to co-develop the MICHELIN Uptis Prototype (Unique Puncture-Proof Tire System) with a goal to make the Uptis a mainstream reality on passenger vehicles as early as 2024. The partnership began testing the prototype on a fleet of Chevrolet Bolt EVs in 2019. This collaborative innovation features airless wheels. The Uptis Prototype mitigates costly problems and unsafe conditions related to flats and blowouts. Additionally, the technology enables airless tires to last longer than standard ones. It also presents an opportunity for substantial reduction in raw materials, energy, emissions and waste related to tire manufacturing, use and repair. The airless wheel directly supports our vision of Zero Crashes, given that 20 percent of drivers annually suffer an air loss that causes crashes and large amounts of tire waste and congestion on roads. Over 99 percent of these issues will be eliminated with an airless wheel assembly.



**3,598**  
reporting locations

the nationally recognized due diligence framework for the responsible sourcing of minerals. The Responsible Minerals Initiative (RMI) assessment that is aligned with the OECD framework is known as the Responsible Minerals Assurance Process (RMAP). This assessment employs a risk-based approach to validate that smelters and refiners have processes in place for responsible mineral procurement. Those SORs that have passed this assessment are considered conformant to the RMAP.

Annual SEC disclosure of conflict mineral sourcing is fully integrated into our business processes. A dedicated team analyzes information in CMRT reports of more than 3,500 direct suppliers. Some duties of the team include, but are not limited to, conducting due diligence on the source and chain of custody of minerals in our supply chain, and SOR outreach to encourage participation in the RMAP.

We have structured an internal management system to support supply chain due diligence. Part of that structure includes a compliance committee of multifunctional GM leaders and an executive steering committee to provide leadership and direction for the program.

Beyond our own reporting activities, we work with our suppliers regularly to increase education and awareness regarding conflict minerals, including conducting periodic webinars and providing a dedicated email address to answer specific questions. We continue to collaborate with others in the industry to educate suppliers. For example, we co-chair the Automotive Industry Action Group (AIAG) Responsible Materials Work Group, which works on common automotive industry solutions with other OEMs and suppliers.

We are also an active participant within the RMI and corresponding RMI sub working groups. The Smelter Engagement Team (SET) is one of these subgroups that enables GM to have a high degree of direct SOR engagement. Through a SET-coordinated email outreach to nonconformant SORs, and RMI sponsored SOR pre-audit visits, we have found this process to be an effective way to encourage nonconformant SORs to move forward with the RMI Assessment.

If SORs have not been validated as conformant to the RMI assessment protocol, then GM sends letters to the SORs to encourage them to participate in this third-party assessment. GM has sent letters to 148 SORs. To further encourage SORs to participate in the audit, GM has made contributions to the not-for-profit RMI Initial Audit Fund in 2017, 2018 and 2019. This fund is used to help offset the costs for the SOR to participate in the RMAP audit.

In addition to our outreach to SORs to proceed with the RMAP assessment, we also conducted two pre-audit visits to nonconformant

After the SORs are identified, we validate whether they have passed an OECD (Organisation for Economic Co-operation and Development) aligned assessment. The OECD has

gold refiners located in India. During these pre-audit visits, we had an opportunity to communicate the importance that SORs in our supply chain source responsibly and validate their responsible mineral procurement through one of the OECD-aligned responsible sourcing programs such as the RMAP. At the end of the visit to India, one of the gold refiners commenced the process of RMAP participation.

As electrification grows in importance to our vehicle portfolio, so too does the focus on cobalt, which is used in lithium-ion batteries. There are concerns around the use of child labor in the mining of cobalt, which would represent a serious violation of our Supplier Code of Conduct and Terms and Conditions in our supplier contracts.

Through our membership in RMI, we are working directly and actively in a cobalt subgroup in the following areas:

- Using the Cobalt Reporting Template (CRT) with key suppliers. The CRT is an important tool in the identification of refiners in the cobalt supply chain.
- Identifying and assisting with the disposition of cobalt companies to determine if these companies meet RMI's industry specification for a legitimate cobalt refiner.
- Performing outreach to nonconformant cobalt refiners to encourage them to go through the RMAP for cobalt. Refiners have been identified as the choke point in the cobalt supply chain because of their limited number of actors. The RMAP assessment is used to validate that cobalt refiners have systems and processes in place to conduct due diligence in accordance with internationally recognized frameworks.
- Conducting due diligence of key GM Tier I suppliers to receive assurance from these suppliers that responsible sourcing of cobalt is a top priority.

Another area of concern is the risk of child labor in mining mica. We have communicated this risk to our paint suppliers who are either members of the Responsible Mica Initiative are, or have been, involved in third-party audits of the mine sites. In addition, we are working collaboratively within RMI's subgroup on mica that includes other RMI member companies to proactively address concerns. The RMI subgroup is working with the Responsible Mica Initiative in the following areas:

- Identify mica processors in the supply chain using a Company Identification Questionnaire.
- Create a joint due diligence standard for these processors.
- Disposition mica processors using RMI methods and adding them to the RMI smelter/refiner database.

**148**  
smelters and refiners  
asked to join RMAP

## Leadership for Sourcing Sustainable Natural Rubber

The tire industry consumes around 70 percent of the world's natural rubber, and demand is growing. Most of the world's rubber today comes from Southeast Asia, and as demand grows, so too does pressure to convert ecologically valuable and sensitive tropical forests into more and more rubber plantations. That comes alongside pressure on local communities that could threaten their fundamental human rights.

Recognizing the importance of taking action to limit the social and environmental impacts from natural rubber production, General Motors became the first automaker to commit to sustainable natural rubber in 2017, and in 2018 became a founding member of the Global Platform for Sustainable Natural Rubber (GPSNR).

GPSNR is an international, multistakeholder organization, with a mission to lead improvements in the socioeconomic and environmental performance of the natural rubber value chain. Members of the platform include rubber suppliers and processors, tire manufacturers, automakers and NGOs. GM appreciates the opportunity to collaborate with peers, suppliers and civil society organizations to collectively move the needle on sustainable natural rubber.



GM believes that sourcing tires produced using sustainable natural rubber has a number of community, business and environmental benefits, including:

- Preserving and restoring primary forests and high conservation value and high carbon stock areas that are critical to addressing climate change and protecting wildlife.
- Improving yield and quality for natural rubber farmers, further supporting the small businesses that contribute 85 percent of this material.
- Mitigating business risk related to supply chain sourcing and performance and helping assure long-term availability of a key commodity.

GM actively participates in two working groups: the Strategy and Objectives Working Group and the Policy Toolbox Working Group. In the former, we work to define the theory of change and ensure strategic alignment across the other working groups; and in the latter, we are working with NGOs and suppliers on crafting specific policy commitments and disclosures that company members will be expected to adopt.

We want to make sure that every tire mounted on every General Motors vehicle meets the highest standards for safety and quality. Through our involvement in the GPSNR, we want to also ensure that the natural rubber in every tire is produced in a way that's consistent with our environmental and social commitments. We recognize that in today's complex global marketplace, no one can do it all by themselves, which is why we're proud to be part of this collaborative, multistakeholder initiative.





## Localization

Localization is another important tenet of our value chain. When we build where we sell, and buy where we build, our vehicles are more competitive because they enjoy pricing benefits and can be built to suit unique local requirements that drive customer enthusiasm and brand loyalty.

Localization also lowers risks by increasing the flexibility of our supply chain to respond to disruptions caused by natural, political or other causes. Furthermore, when we work with local suppliers, we also support the local economies of communities where we operate and realize environmental benefits by helping to minimize shipping, thus reducing fossil fuel use, carbon emissions and material use. GM works cross-functionally through our product development activities, sourcing activities and logistics planning to maximize the benefits of localization.

## SUPPLY CHAIN CHALLENGES FOR THE ROAD AHEAD

- Pursuing compliance with the GM Supplier Code of Conduct across a complex, global and multitiered supply chain.
- Measuring Scope 3 emissions accurately within the supply chain in order to develop reduction strategies.
- Sourcing materials that are critical to the continued development and widespread deployment of advanced vehicle technologies.
- Protecting the rights of workers, communities and the environment in lower, less visible tiers of our supply chain.

### LOCAL SOURCING

**90%**

North America

**80%**

International and South America

**95%**

China



# DEVELOPING TALENTED PEOPLE

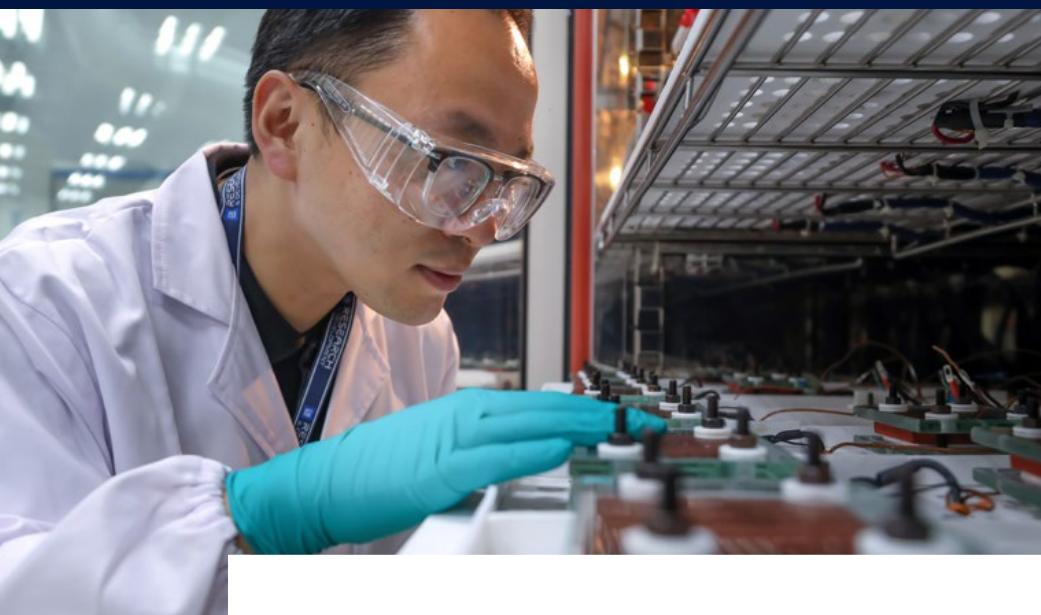
## KEY TAKEAWAYS

- We create a workplace of choice by adhering to a responsible employer philosophy, which includes commitments to create job opportunities, pay workers fairly, ensure safety and promote wellness.
- Our seven GM behaviors are the foundation of our culture and the basis against which we assess employee performance.
- Benefits such as paid parental leave, wellness programs, flextime scheduling and telecommuting arrangements help ensure a healthy work-life balance.
- We respect our employees' right to freedom of association in all countries, and, in 2019, ratified a new four-year labor agreement covering employees at 55 UAW-represented sites across the U.S.

### IN THIS SECTION:

#### 102 Developing Talented People

- Talent Acquisition
- Talent Engagement
- Talent Development
- Wellness and Benefits
- Labor Relations



## DEVELOPING TALENTED PEOPLE

GM's people will always be our greatest strength. In order to stay competitive and relevant as a company, we must attract and retain the brightest talent around the world.

Today, we compete for that talent against other automotive companies and, increasingly, against businesses in other sectors, such as technology. To win and keep talent, we must provide a workplace culture that encourages employee behaviors aligned with our values, fulfills their long-term individual aspirations and achieves full engagement.

We do this by adhering to a responsible employer philosophy, which includes commitments to create job opportunities, pay workers fairly, ensure safety and promote wellness. GM pays a living wage. GM also offers quality health care coverage to all our employees, 401(k) plans with matches and paid time off to cover vacations, sick leave, parental leave and military leave. We also protect workers from harmful and hazardous conditions by adhering to strict health and safety standards.

Our efforts to be a responsible employer have been recognized for the past two years by the JUST 100, a list developed by JUST Capital that ranks companies on the issues that Americans care about. The criteria for inclusion on the JUST 100 come directly from a survey of more than 80,000 Americans, and the number-one priority for survey participants is that they want to see fair treatment of workers from the nation's biggest businesses. Our inclusion on the list and increasing rank since 2017 is a useful barometer to demonstrate that when it comes to people, GM is doing the right things.



### Talent Acquisition

The hiring and retention of top talent is always a strategic priority and, increasingly, a challenging one. Continued strength in the economy and a heated job market mean that the best-qualified candidates are likely entertaining multiple job options.

In addition, our increasing focus on technologies such as connectivity, autonomous and artificial intelligence, to name a few, requires us to compete not only against other automotive companies but also leading companies from the technology sector.

Our recruitment efforts are often the responsibility of internal talent acquisition teams, who we believe are best able to convey GM's strengths and stories in a personal, engaging way. We reach out to prospective employees via social media and bring our purpose to life with the Made for More Employee Value Proposition.

Colleges and universities remain an important source of talented recruits. To build connections with students, we sponsor and partner with numerous universities across the country. We also are the only automaker to partner with SoFi, an online personal finance company, to help eligible U.S. employees refinance their student loans. In addition, the Take 2 internship program for parents, caregivers and/or trailing spouses with backgrounds in engineering, manufacturing and other technical areas provides a valuable reentry point for individuals who have spent time out of the job market.

**18,311**

2019 global  
new hires

## Talent Engagement

GM's approach to employee engagement is simple: Generate a positive work environment to drive long-term success by creating a place where employees feel inspired to do their best work and feel valued for doing it. We strive every day to engage our employees in a meaningful way so that we may further instill our Purpose and Values into our global workforce. Today, we are strengthening our corporate culture by giving GM employees five things they need, not only as employees, but also as individuals:

- To be valued and to do valuable work.
- To make their time count rather than to be counted.
- To know that their leaders know how much effort their work takes.
- To know what skills will keep them in critical roles or what roles are giving them critical skills.
- To be provided with the truth behind business decisions and strategy rather than protection from change.

Our objective is to create a workplace of choice built on dimensions that are consistently demonstrated by best-in-class companies: teamwork, fairness, trust, growth, commitment, recognition and impact.

Employee performance is measured against our seven GM behaviors for employees. The GM Recognition program reinforces these cultural behaviors and is used to recognize employees who demonstrate any one of our behaviors in their daily work. Using an online platform, fellow employees and leaders can make the recognitions and provide certain rewards for living our values, building our culture and for outstanding work. We know that top talent is attracted to companies that are recognized externally for being among the best or most admired in the world.

We measure engagement through our global Workplace of Choice survey, which includes both salaried and hourly workers. A key metric associated with this survey is the percentage of employees who participate, which has shown steady improvement and, at 87 percent in 2018 for our salaried employees, was above best-in-class. Together with our hourly employees, more than two-thirds of our total workforce voluntarily participated in that survey to share feedback and perspective on GM as their employer of choice. We strive for continuous improvement in engagement scores. To this end, GM's senior leadership team and senior executives are given aspirational engagement targets, beginning in 2020. We also assigned all leaders of GM salaried employees a common 2020 performance management goal in order to emphasize their role in creating an engaged workplace culture. To help gauge progress toward meeting this goal, we send all global salaried employees an internally administered "Pulse" survey periodically. The Pulse survey enables us to better understand progress on known drivers of engagement, as well as to help refine action plans as needed.

To help gauge progress toward meeting this goal, we send all global salaried employees an internally administered "Pulse" survey periodically. The Pulse survey enables us to better understand progress on known drivers of engagement, as well as to help refine action plans as needed. Our first Pulse survey in 2019 focused on



## 2019 sustainability report

careers. We learned that more than three-quarters of employees believed they were given assignments to help them develop, while one-half to one-third of employees agreed that they have meaningful career conversations with their leaders. This finding led to leaders being held accountable for having conversations with employees as part of their performance goals as well the creation of guides to help improve the quality of the conversation. A second Pulse survey in 2019 was focused on Resources. More than two-thirds of employees agreed that they had access to information, training, technology, and feedback to successfully perform their role. Pulsing will continue on a regular cadence in 2020.

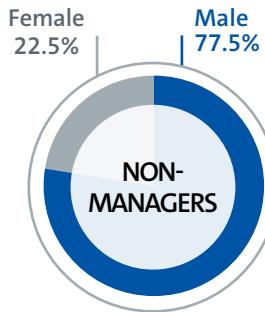
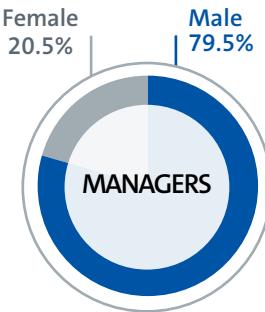
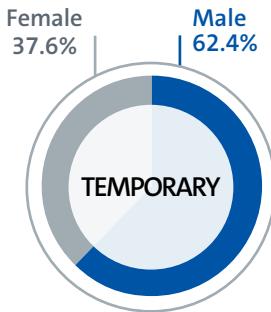
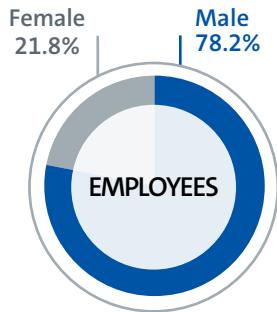
## Talent Development

Career development is one of the top concerns for our employees around the world. We continue to increase the number and variety of career resources available to help employees grow their careers within GM. Formal performance management and individual tools for employees to use on their own are helping us address employee retention and development. Offering competitive benefits and promoting work-life balance further allows us to retain employees and enables the greatest possible returns on our investments in talent.

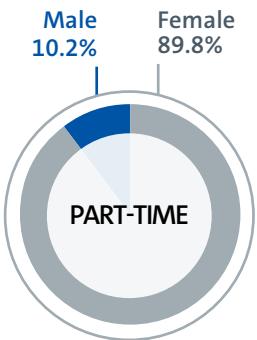
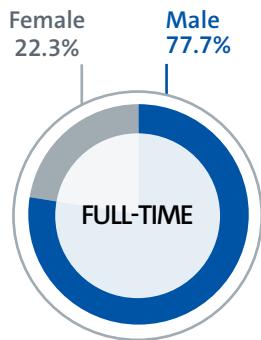
Our development process is available to employees at all levels, from new hires to senior executives. Crucially, this process is not prescriptive. We provide guidance and offer diverse opportunities, while encouraging employees to build skills and gain experiences that interest them most. We offer programs in partnership with academic institutions such as Harvard, Stanford and the University of Michigan. These programs bring new perspectives on matters such as creativity and design thinking that are preparing employees for emerging trends in our industry. GM-specific programs like JumpStart for new hires and Crucial Conversations for people leaders remain popular and effective, building both on-the-job competencies and coaching on skills like communication and trust.

## GM Workforce Profile

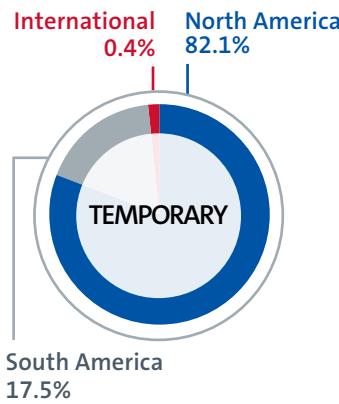
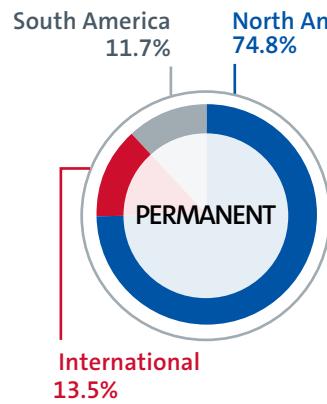
### Global GM Workforce by Type — GM Employees Only



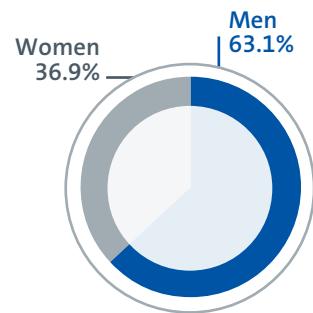
### Employees by Employee Type



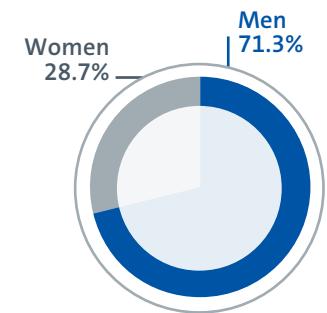
### Employees by Employment Contract



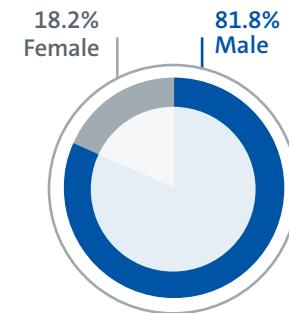
### Global Hires by Gender



### Global Attrition by Gender

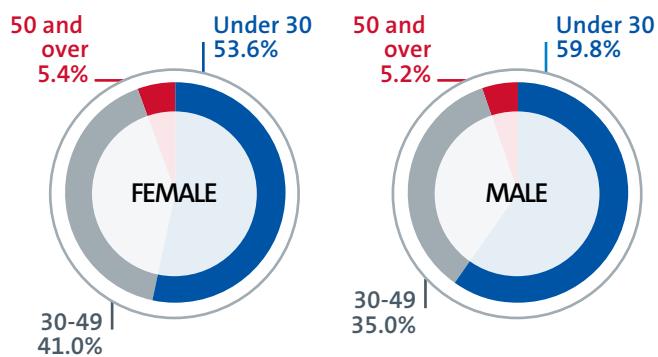


### Technology Positions

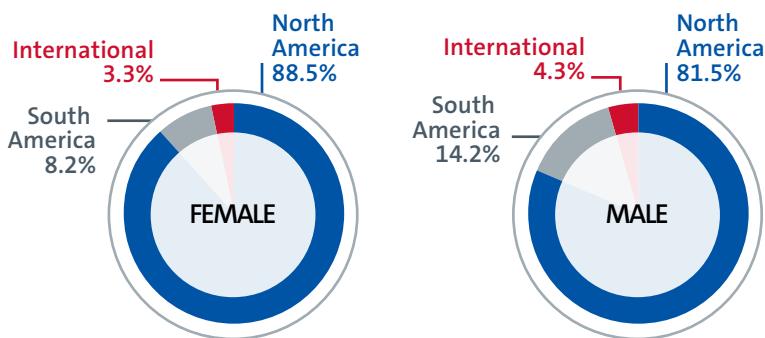


In 2019, GM's total turnover rate was 10.7 percent, 4.7 percent of which was voluntary. Attrition data is U.S. Salary and Hourly population. Total turnover rate increased due to GM Separation Program in early 2019.

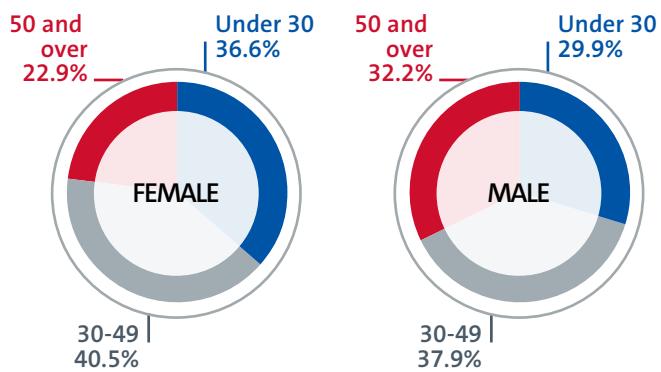
### Global Hires by Age



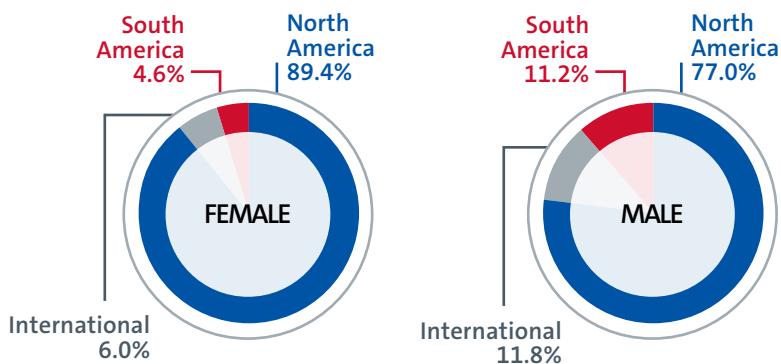
### Global Hires by Region



### Global Attrition by Age



### Global Attrition by Region



## Spotlight on Engineering Talent

To make our electric and autonomous vehicle aspirations a reality, GM must recruit the best engineering talent in the world. We remain engaged in a global war for talent alongside not only other automakers, but also large technology companies and startups. GM is succeeding in our recruitment and retention efforts by going to where the talent is. New hubs in Silicon Valley; Markham, Ontario; Israel and more have allowed us to grow our software engineering footprint and mix. Today, more than half of our product group workforce has been with GM for five years or fewer.

We're also rebuilding our engineering teams from within as part of GM's enterprise transformation. Over the past several years, we have integrated propulsion and vehicle engineers as well as hardware and software engineers under a true one-team mentality. By removing barriers between our talented engineering teams, we can work more quickly and efficiently to solve some of the most complex engineering challenges of our time.



## Starting New Employees Off on the Right TRACK

Five continents. 173,000 employees. An array of leading global brands. GM is a large and multifaceted company, and its complexity can be hard for a new hire to appreciate, especially if they are a recent college graduate still determining the direction of their career. While we continue to hire new grads in large numbers for direct positions in GM, we also recognize the benefits of exposing employees to a variety of functional areas within their first few years of employment.

That's why we offer the Technical Rotation and Career Knowledge (TRACK) program, which allows recent college graduates to explore a variety of career paths at GM, make connections across the company and prepare for success early in their careers. Candidates can apply to the program in one of 11 functional areas, ranging from design to human resources.

Up to

**1,200**

GM employees participate in the TRACK program each year

TRACK is designed to offer three eight-month job rotations, but assignments may vary based on an employee's interests. Between rotation cycles, GM helps new employees choose their next position, offering surveys, interviews with managers and a career fair where participants can learn about open positions.

TRACK is not only an opportunity for graduates to learn technical skills, but also a chance to build interpersonal skills and grow their networks. Says Adam Thompson, a former GPS TRACK engineer who now works as a calibration engineer for battery state estimation, "I think the soft skills are some of the biggest skills I gained in TRACK. I learned to facilitate conversations, lead meetings and speak up when necessary."

The majority of GM's early career workforce completes their first years at GM in the TRACK program, which supports between 800 and 1,200 participants every year. We believe that this program is not only creating more skilled and engaged employees today, but strengthening our organization for the future.





## Wellness and Benefits

Benefits that help new hires balance their jobs with other aspects of their lives increase GM's appeal. For example, our paid parental leave applies to all U.S. salaried employees, offering mothers, fathers and adoptive parents two weeks of paid leave in addition to the six to eight weeks allowed of disability leave for birth mothers. Both parents are also eligible to apply for up to two years of Dependent Care Leave, which, while unpaid, provides a job guarantee for up to one year.

GM places more emphasis on accomplishing work-related tasks than on spending a certain number of hours in the office. This improves employees' work-life balance and enables them to address personal needs while still completing their work. In job assignments that are compatible, and with leadership approval, we allow flextime scheduling to accommodate individuals who prefer to start their workday early, as well as those who have reasons for working late. GM also allows telecommuting arrangements through which employees complete work away from a GM worksite and connect with their coworkers through email, telephone and web meetings. This can be an effective work arrangement for individuals who face a long commute between their home and worksite, or those who have personal responsibilities that require their presence at home for specific periods of time.

Health and well-being programs, such as on-site fitness facilities and a health concerns hotline, help us both attract talent and reap the benefits of a healthier workforce.

The LifeSteps employee wellness program helps employees take an active role in their health. It provides U.S. salaried employees and their eligible family members with a broad range of tools for health education, risk identification, personal coaching, goal setting and tracking. Users can access this information using a dedicated program website and receive monthly communications on health topics such as nutrition, fitness and stress management.

When employees achieve agreed-upon objectives for a healthy lifestyle, such as providing certification of an annual preventive physical exam, they can receive cash incentives and/or Health Savings Account contributions. In 2019, 84 percent of eligible employees received this LifeSteps incentive.

In 2019,  
**84%**  
of eligible employees received LifeSteps incentives.

## Labor Relations

We respect our employees' right to freedom of association in all countries and comply with our obligation to satisfy all local labor laws and regulations. GM works with about 33 unions globally, representing approximately 64 percent of our global workforce covered by collective bargaining agreements. In 2019, GM ratified a new four-year labor agreement covering employees at 55 UAW-represented sites across the U.S. The new agreement provides GM hourly workers with a world-class wage, benefit and profit-sharing package, rewarding their hard work and supporting families and communities across the U.S.

GM's relationships with labor unions are generally healthy and stable business partnerships. Consistent with our respect for employees and their bargaining representatives, we have worked collaboratively with our union partners to realize significant increases in performance.

We manage our labor relations regionally, with a global focus. The labor relations responsibility is held by the global manufacturing leader, with partnerships that go to the highest level of the GM organization. Regular meetings are held with our union partners,

starting with quarterly meetings between our CEO and UAW leadership. Regional vice presidents of manufacturing enjoy face-to-face meetings with the unions when visiting the manufacturing sites globally, and plant managers around the globe discuss business issues on a daily basis with local unions. These meetings provide critical input to making business decisions in a dynamic environment where schedules, economic swings and products are changing. GM leadership devotes time to work productively with our union partners. This spirit of collaboration continues even during challenging times.

The way we manage labor relations is evolving as the nature of unions and the interactions among them evolve around the world. We work to share best practices and solutions among regions. As an example, our labor experts from our developed markets often mentor and advise labor personnel in emerging markets.

### ***Displaced Workers***

Our responsible employment philosophy extends to when workers are displaced because of a plant production adjustment. As an example, during GM's workforce transition in 2018, we were able to provide job opportunities for all U.S. hourly employees impacted by the changes. Many of these new positions are at plants manufacturing vehicles that are in growth segments. We worked closely with our union partners to offer these opportunities, as well as outplacement services, including job search assistance, career counseling, resume writing and interview skills training for those who chose not to relocate within GM. For those who chose to move, we offered relocation packages to help them with expenses and allowed them to retain their seniority and benefits. In Canada, we worked with local organizations to identify thousands of open positions at other manufacturing businesses and connected affected employees with these opportunities.

### ***UN Global Compact***

GM is a signatory to the United Nations Global Compact (UNG), which calls upon companies to align their strategies and operations with universal principles on such matters as labor, human rights, the environment and anticorruption. As a UNG signatory, GM agrees to uphold the Ten Principles derived from the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption. GM's participation in the UNGC underscores our confidence that we are operating in a consistent manner around the world to ensure the proper treatment of all employees.

2019 Sustainability report 2019



## **TALENT CHALLENGES FOR THE ROAD AHEAD**

- Competing for top talent against other automakers and technology companies
- Investing in GM people and their development across the business cycle
- Transitioning workers among vehicle programs to align the business with shifts in consumer preferences and minimize worker displacement
- Increasing our employee engagement survey scores



# FOSTERING DIVERSITY, EQUITY & INCLUSION

## KEY TAKEAWAYS

- In June 2020, we pledged to become the most inclusive company in the world. The promise to swiftly address any evidence of racism and injustice within our facilities, our supply chain and our global network is one we take seriously.
- Our ability to meet the needs of a diverse and global customer base is tied closely to diversity and inclusiveness of the people within our company, which is why we are committed to fostering a culture that celebrates our differences.
- Women hold 32.2 percent of GM's top management positions within two levels of the CEO, and we are the only major U.S. company with both a female CEO and CFO.
- Our efforts to date are still challenged by our ability to reach the level of diversity and inclusion we seek within our company.

### IN THIS SECTION:

[\*\*110 Our Aspiration: Be the Most Inclusive Company in the World\*\*](#)

[\*\*112 Creating an Inclusive Culture\*\*](#)

- Racial Equity
- Gender Equity
- LGBTQ Equity
- Equity for People with Disabilities
- Veterans Support
- Employee Resource Groups
- Supplier Diversity
- 2019 Diversity-by-the-Numbers



General Motors Chairman and CEO Mary Barra speaking out against racism and injustice at City Hall in Detroit, Michigan.

## OUR ASPIRATION: BE THE MOST INCLUSIVE COMPANY IN THE WORLD

In the days following the homicide of George Floyd in Minneapolis, shock and protests reverberated throughout the country and around the world.

CEO Mary Barra moved decisively to communicate GM's position to our employees around the world. Her message stated unequivocally GM's intolerance of racism and injustice while also setting a bold aspiration: to be the most inclusive company in the world. "Let's stop asking 'why' and start asking 'what.' What are we going to do?"

Specifically, Barra reaffirmed GM's unwavering position on the following:

- **We commit to inclusion** — that means creating the conditions where every single human who believes in inclusion is welcome within our walls.
- **We unequivocally condemn intolerance** — that means racism, bigotry, discrimination and any other form of named or unnamed hatred.
- **We stand up against injustice** — that means taking the risk of expressing an unpopular or polarizing point of view, because complacency and complicity sit in the shadow of silence.

Barra also announced that by the end of second quarter 2020, she would commission and chair an Inclusion Advisory Board of both internal and external leaders. The Board's initial purpose will be to consult with GM's Senior Leadership Team with the long-term goal of inspiring the company to be the most inclusive in the world. She concluded the message by reminding all that awareness leads to dialogue... dialogue leads to understanding... and understanding leads to change.

It has never been more clear that what we at GM are doing to advance equity and inclusion is not enough. The following pages outline where we are now. We're not satisfied with the progress that we have made, and we commit to being radically transparent about the work that must be done internally, with our supply chain and beyond, to become the most inclusive company in the world. While we are proud of the role we've played in expanding opportunities for women in manufacturing and STEM-related fields, we will build on this and do the hard work required to expand equity and inclusion for other underrepresented groups.

### INCLUSION ADVISORY BOARD

#### IAB MEMBERS

**Mary Barra:** Chairman and CEO, GM (Chair)

**Tonya Allen:** President and CEO, The Skillman Foundation

**Dennis Archer, Jr.:** CEO, Ignition Media Group and President, Archer Corporate Service

**Kim Brycz:** Senior Vice President, Global Human Resources, GM

**Craig Buchholz:** Senior Vice President, Global Communications, GM

**Arden Hoffman:** Chief People Officer, Cruise

**Todd Ingersoll:** President and CEO, Ingersoll Auto of Danbury, and GM Minority Dealer Advisory Council Member

**Gerald Johnson:** Executive Vice President, Global Manufacturing, GM

**Telva McGruder:** Employee Resource Group At-Large Member, GM

**Mark Reuss:** President, GM

**Dhivya Suryadevara:** Executive Vice President and Chief Financial Officer, GM

**Matt Tsien:** Executive Vice President and Chief Technology Officer, GM

#### GUIDING PRINCIPLES OF THE IAB

##### OUR WORDS

- We believe that everyone has the responsibility to speak up in the presence of bias and injustice in our world. We will listen and engage in conversations that elevate our collective understanding and inform our actions to address inequality.
- We will not be silent. We will leverage the voice of GM and our brands to contribute to the dialogue condemning injustice and driving inclusion.

##### OUR DEEDS

- Our words will be supported by actions. We will build on current alliances and establish new ones to advocate for and achieve equality in social justice, education, health care and economic opportunities for blacks and other marginalized groups.
- We believe our partners should reflect our values. Therefore, those who represent us, do business with us or choose to align with us must take action to demonstrate the same level of commitment.

##### OUR CULTURE

- We will hold ourselves accountable to set the example for diversity and inclusion in the workplace. We will create a safe environment where difference and diversity are respected, valued and reflected in how we recruit, hire, develop and promote.
- We will ensure a more transparent workplace environment that is safe, respectful, free from fear, and promotes and delivers real and measurable outcomes.

## As We Seek to Become the Most Inclusive Company, We Will Build on Our Track Record

**1968**

First minority supplier program in the auto industry

**1971**

First Fortune 500 company to have an African American director on its Board

**1972**

First minority dealer program in the auto industry

**1972**

First company to sign a letter of support for the National Guard and Reserve

**1973**

Among the first 500 companies to have an African American Officer

**1995**

First automaker to run an LGBTQ-specific ad

**2001**

First and only auto company to have a women's dealer program

**2005**

First and only African American Vice President of Global Design in the industry

**2014**

First female CEO in the auto industry

**2016**

First female Chair in the auto industry

**2018**

First auto company to have both a female CEO and CFO

**2019**

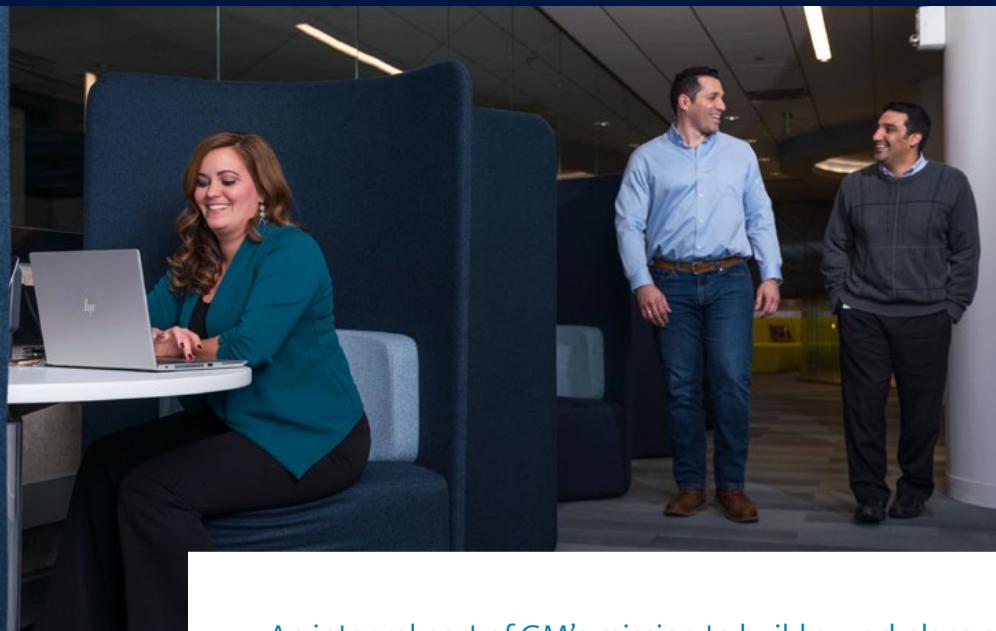
Signatory to the Business Coalition for the Corporate Equality Act

First auto company with a board of directors made up of 55% women

### 2019 NEW HIRES

(based on self-reporting by GM employees)

**18,311**  
global total**6,768**  
women<sup>1</sup>**213**  
veterans<sup>2</sup><sup>1</sup> Global  
<sup>2</sup> U.S. Only**513**  
minority hires<sup>2</sup>**120**  
people with disabilities<sup>2</sup>



## CREATING AN INCLUSIVE CULTURE

An integral part of GM's mission to build a workplace of choice is creating an inclusive culture that welcomes and celebrates a diverse workforce.

A McKinsey & Company study found that companies that are demographically diverse are far more likely to outperform their less diverse industry peers. We also believe that our ability to meet the needs and expectations of an increasingly diverse and global customer base is tied closely to diversity and inclusiveness within.

The GM Executive Leadership Team, chaired by our Chairman & CEO, serves as the company's senior diversity council. Other diversity-focused councils within our organization include the Supplier Diversity Council, Employee Resource Group Leader Council, Disabilities Advisory Council, Minority Dealer Development Council, Women Dealer Development Council, Veterans Leadership Advisory Board, LGBTQ Executive Roundtable, Women's Advisory Board and the Employee Resource Group (ERG) Executive Champions Roundtable. Further, our Global Chief Diversity Officer chairs the Strategic Diversity Working Group, which aligns all DE&I efforts globally and incorporates inputs from marketing, communications, corporate relations/philanthropy, talent acquisition, public policy and legal. In addition, GM's diversity initiatives are routinely reviewed with the executive leadership team and the Board of Directors.

In 2019, we conducted our first Segment Inclusion Survey to establish an inclusion baseline for the U.S. The survey was issued to more than 30,000 salaried U.S. employees, with a 24 percent response rate. The survey asked employees their agreement levels on a series of statements across four dimensions of inclusion: valued & belonging; safe & open; empowered & growing; and, respect & equality. Importantly, nearly 6,000 employees who took the survey provided open-ended feedback on inclusive leadership attributes and suggested ways to foster a more inclusive culture within GM.

Highlights of the survey showed that overall, more than 85% of employees who responded to the survey agreed with the statement, "I feel accountable for helping create an inclusive

culture." Conversely, these same employees identified "sense of belonging" and the "ability to be 'one's real self'" among their top 5 statements of disagreement. And, further analysis and qualitative probing showed that the strength of disagreement on these statements varied significantly by group. The survey findings were shared with GM leaders, their teams and Employee Resource Group leads, along with recommendations, resources and tools to begin the process of understanding and effectively addressing the inclusion gaps identified through the research.

GM also is proud to be a signatory to several CEO pledges including:

- CEO Action for Diversity & Inclusion Pledge, which counts more than 900 CEOs who have committed to take action to cultivate environments where diverse experiences and perspectives are welcomed and where employees feel comfortable to have critical conversations around inclusion.
- The White House Equal Pay Pledge Commitment, which commits to reviewing hiring and promotion processes and procedures to reduce unconscious bias and install equal pay efforts throughout the organization.
- Coalition for the American Dream, through which more than 100 CEOs are calling upon political leaders to act immediately and pass a permanent bipartisan legislative solution to protect Dreamers.
- Business Coalition for the Equality Act, in which GM is the first and only automotive company to support bipartisan legislation establishing clear and comprehensive non-discrimination protections for LGBTQ people in employment and across all other facets of life. GM supports efforts to amend Michigan's civil rights law to protect lesbian, gay, bisexual and transgender individuals as part of Fair and Equal Michigan.



## Racial Equity

Everyone at General Motors is expected to uphold a set of values and behaviors that are integral to our culture — predicated on an environment where we can all show up to work and contribute fully, free from fear.

We have had our position on zero tolerance for discrimination tested in the past through the unacceptable actions and behaviors of a few employees at our locations. In every case, we took deliberate and swift action to address those issues, and provided re-education and training for our employees to confirm what is expected of those who work for our company.

While we have long been focused on diversity, including racial diversity, we acknowledge that much more work is ahead to ensure our workforce and leadership team are truly diverse. That there is real equity and a measurable culture of inclusion. But, we want to go further than that and are equally committed to ensuring that every GM employee feels a sense of belonging within our company. As part of GM's efforts to become the most inclusive company in the world, we will cultivate an environment where each person feels they are heard and supported.

So that we can measure and track our progress toward inclusion, in 2019 we conducted a baseline survey of our employees and held empathy interviews and group sessions to better understand our starting point. The findings of our survey were shared with leaders in every function as we take our first steps on this important — and imperative — journey.

Through this qualitative research, we identified three key priorities:

- Ensuring that leaders at GM become more intentional about their responsibility for advancing diversity, equity and inclusion within our company, mitigating bias and championing the Employee Resource Groups and their initiatives.
- Increasing transparency among internal and external stakeholders so that we can acknowledge our shortcomings and create actionable plans for improvement. This report is a starting point,

## Upholding Our Values with Zero Tolerance for Discrimination

Everyone at General Motors is expected to uphold a set of values that are integral to the fabric of our culture. That culture is predicated on an environment that is safe, open and inclusive — where we can all show up to work and contribute fully, free from fear. We have zero tolerance for any behavior that does not live up to these values.

Two years ago there were allegations of racial discrimination at our Toledo Transmission plant. GM took the situation very seriously and promptly investigated all allegations raised at the facility. This instance of discrimination was a direct violation of GM's policies, and throughout the investigation where there was evidence of racism, employees were immediately let go. In addition, we shut down the line and conducted anti-harassment and antidiscrimination training for all Toledo employees. We also provided training to over 50,000 manufacturing employees across our U.S. sites and encourage employees at every level to report unacceptable behavior at work.

By remaining vigilant and refusing to tolerate this behavior, we are driving harassment and discrimination out of the workplace.

but we will identify further ways to ensure transparency can lead to accountability.

- Facilitating opportunities for our people to forge difficult but necessary conversations around racial equity that help further us toward our inclusion vision.

These three needs will factor within our broader corporate strategy for the coming months, and we look forward to updating our stakeholders on our progress.

## Gender Equity

GM has long been a global leader in advocating for women's equity in the workplace, with women in 32.2 percent of our top management positions within two levels of the CEO. We are currently the only company among the largest in the U.S. that has both a female Chief Executive Officer and Chief Financial Officer. We have been recognized by organizations such as Equileap and the Bloomberg Gender-Equality Index for gender equality in the corporate sector. Among the reasons: we are one of the few global businesses that have pay equity at the top, middle and bottom bands as well as no overall gender pay gap across the company. We also have policies to combat sexual violence at work, measures to improve supplier diversity and offer flexible hours and flexible work locations to our employees.

Our commitment to the Equal Pay Pledge reflects the value we place on gender equity, our commitment to fostering a diverse and welcoming workplace that values the contributions of all employees, and our shared belief that employees' protected categories, including gender, should not factor into compensation decisions. We believe that fair and equitable pay should be an essential element of any successful business model, and we are proud to stand with other companies that share this same value. GM conducts gap analyses on an ongoing basis to identify any pay discrepancies and makes adjustments whenever unaccounted for discrepancies are found.

We also have instituted innovative programs to increase representation of women such as Take 2, a program for experienced professionals, often women, who have taken a two-year or longer break from their careers and are ready to rejoin the workforce. The 12-week paid program serves as an "audition" that prepares experienced interns for a full-time career in one of several fields at GM through training, professional development and networking opportunities. Take 2 is currently in its eighth cohort in the U.S.

Other programs supporting women include:

- GM Ally Program was established in 2019 with the purpose of helping us increase our ability to attract, retain and advance female talent, and to build advocacy for sponsoring and mentoring women.
- Global GM Women Councils are aligned around common strategic pillars focused on women's development, increasing sales to women consumers and supporting the communities where we live and work. In 2019, there were 15 global women's councils representing 22 countries.
- GM Women's Bootcamp has been expanded to include all functions and engaged 52 executive-potential women in 2019 to accelerate their development to take on increasing roles in the organization. Momentum will continue by providing a virtual experience for a new cohort of executive-potential women in 2020.



**80%**  
job offer rate  
upon program completion

**137**  
relaunchers  
since 2016

**98%**  
acceptance rate



## LGBTQ Equity

GM's commitment to the LGBTQ community is at the core of our company's policies. We have offered same-sex domestic partner benefits for more than a decade and extended same-sex spousal benefits to married LGBTQ couples in 2012. We also have a strong anti-discrimination policy that protects LGBTQ employees at GM. Beyond these measures designed to increase inclusion for our own employees, we recognize the need for a federal standard that guarantees these rights for LGBTQ individuals everywhere. That's why GM is a signatory to the Business Coalition for the Corporate Equality Act, which provides the same workplace protections to LGBTQ people as are provided to other protected groups under federal law.

## Equity for People with Disabilities

The inclusion of people with disabilities helps drive innovation for our customers and our employees. For example, providing reasonable accommodations for employees who are managing disabilities allows them to perform their best and get the most out of their experience at GM. Reasonable accommodations come in many forms, including adaptive equipment, screen reader software, on-site service animals, alternate parking locations and flexible work arrangements.

But the best ways for engaging with people with disabilities are not always broadly understood. That's why GM recently introduced a new training course for employees on disability inclusion in the workplace. The course includes real stories from GM employees and is designed to educate our workforce on how they can promote disability inclusion in their work and daily lives. It also explains why it's important for U.S. employees to self-disclose any disabilities that they are managing that affect their work so that GM can provide any equity tools that may better enable employees to perform.

## Veterans Support

GM and our brands are long-time supporters of our armed forces, with veterans making up more than 6 percent of our workforce and 90 current active service members working for the company. We show our appreciation for their service in a number of ways, including the best military discount program of its kind for active duty, reserve and retired members of the military who purchase GM vehicles. We also donate to causes that support and honor veterans, such as the Stephen Siller Tunnels to Towers Foundation and the National Native American Veterans Memorial.

## Employee Resource Groups (ERGs)

ERGs are voluntary, employee-led groups that serve as a resource for their constituent members and provide a forum by fostering diverse, inclusive workplace that aligns with the vision and core values of the company. ERGs provide a forum for employees to share common concerns and experiences, gain professional development support, provide cultural learning for the larger organization and engage in their local communities. We have 11 ERGs, all working toward our corporate effort to make GM the most inclusive company in the world and are proud that one in three GM employees participates in an ERG. ERGs provide us with insights that help us better understand diverse and emerging consumer markets, while offering a platform for our employees to contribute to initiatives within our diverse community. Each ERG also has a business plan tied to talent acquisition, talent development, community outreach and business support. GM ERGs extend to both the U.S. and across the globe.

**30%**  
GM employees  
participate in an ERG

Our ERGs are essential for nurturing a culture of inclusion, providing employees support and a forum in which to express concerns and share experiences. Each group works to attract new talent to our company.

- African Ancestry Network Group (GMAAN)
- GM Able (formerly People with Disabilities)
- GM Asian Connections (GMAC)\*
- GM European Connection (GMEC)\*
- JumpStart (New Hires)\*
- GM LATINO Network (GMLN)\*
- Middle East North Africa Group (MENA)
- Native American Cultural Network (NACN)
- GM PLUS (LGBTQ and Allies)\*
- GM Veterans Group
- GM WOMEN\*

\*ERGs with chapters outside the U.S.

## Supplier Diversity

GM has a long legacy of leadership in helping diverse suppliers flourish. In 1968, we became the first OEM to establish a formal supplier diversity program. Over the past five decades, we have spent more than \$107 billion with diverse suppliers and contributed to innumerable community initiatives in collaboration with diverse suppliers. GM strives to achieve equitable and sustainable supply chain inclusion goals that ensure long-term viability for our diverse supply base.

We engage with our suppliers through long-standing events such as Supplier Connections, which attracts nearly 1,000 attendees each year. 2019 marked the 10th anniversary of this annual event that provides an average of 100 free booths for suppliers to access in hopes of driving new business and growth opportunities. The day consists of a free trade show, allowing for networking, targeted matchmaking, professional development and opportunities to connect. The event also includes a collaboration with Ideal Group to host a school supply drive that benefits students at Detroit Cristo Rey High School & Holy Redeemer Grade School in Detroit. More than 2,500 school supplies were collected in our latest drive.

**\$3.4B**  
Tier I spend

**\$3.3B**  
Tier II spend



2019 Supplier Connections event

## Our Supplier Diversity Mission: Drive I.D.E.A.S.

### IMPACT

- Tier I & II spend metrics and sourcing opportunities
- Detroit Cristo Rey and Holy Redeemer school supplies drive

### DEVELOPMENT

- Five-point supplier curriculum
- Tuck Diverse Development Partnership (Board Chair and Advisory Board Chair with funding of 24 Executive Education scholarships in 2019)

### EDUCATION

- National Association of Black Suppliers (NABS) scholarship award
- National Association of Women Business Owners (NAWBO) GirlBiz sponsorship and support
- Four Cristo Rey High School scholarship awards providing scholarships with placement at GM and advocacy partners

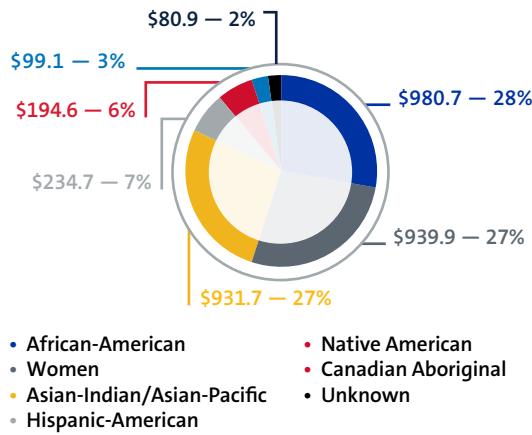
### ADVOCACY

- Active memberships and sponsorships with more than 20 national and regional organizations
- In partnership with these organizations, GM holds six board of directors positions and is active on seven subcommittees

### SUPPLIERS

- Build relationships and business intelligence with comprehensive Supplier Diversity health checks and annual Supplier Connections event
- Seven out of 19 of GM's Supplier Council members are diverse suppliers and act as trusted advisors
- GM hosts the annual Supplier Impact Meeting and Awards, which honors suppliers for increasing and improving inclusion within their own supply chains

### 2019 Diverse Spend (in Millions)



## Diverse Suppliers Contribute to GM's COVID-19 Efforts

GM's response to the COVID-19 pandemic has included the conversion of several operations to manufacture life-saving equipment such as ventilators and personal protective equipment. To do so, we partnered with a number of diverse suppliers.

Our ventilator co-manufacturing project with Ventec has involved ChemicoMays, a minority-owned chemical management service; MacArthur, a minority- and woman-owned provider of labels, tags and decals; NYX, which provides injection-molded subcomponents; and Archer Corporate Services, a minority-owned order fulfillment service for consumable kits. Archer has a long-standing relationship with our dealers and was able to work quickly to provide an environment to assemble filters and breathing circuits critical to ventilator production and distribution. They also provided GM with additional warehousing support.

Through our efforts to deliver flat masks to the medical community, our purchasing and engineering teams worked with GDC, a woman-owned business, to convert the most constrained portion of a face mask's bill of materials — melt-blown fabric. In simple terms, we took a thicker version of an acoustical automotive fabric and thinned it out to make a mask in one week. This industry game-changer opened up new capacity within the U.S. for this material, which typically comes from Asia. Our PPE donation program also included working with Share the Spare, a division of minority-owned Ideal Group, for warehousing and donations.



The GM Supplier Diversity team at the 2019 NMSDC Conference.



## DIVERSITY, EQUITY & INCLUSION CHALLENGES FOR THE ROAD AHEAD

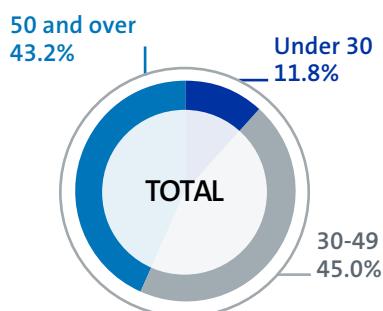
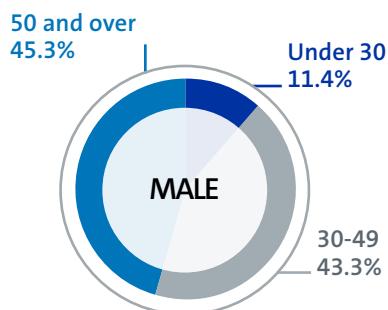
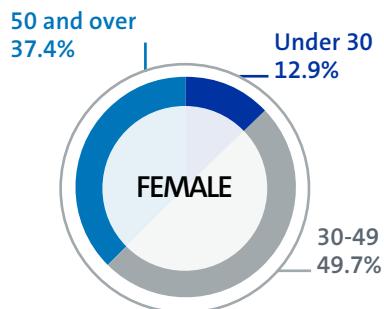
- Ensuring a diverse pool of qualified candidates is consistently considered for openings and promotions
- Increasing the representation of women and other people who are traditionally underrepresented groups in our succession planning within our management ranks
- Helping every employee in every GM facility understand and put into action how they can contribute to the vision of being the most inclusive company in the world
- Identifying and eliminating the potential for bias that may exist within our business practices and talent management processes
- Leveraging the power of our voice to advocate for a future with equity and inclusion for all

### 2019 – 2020 DRIVING DIVERSITY FORWARD: COMPANY AWARDS

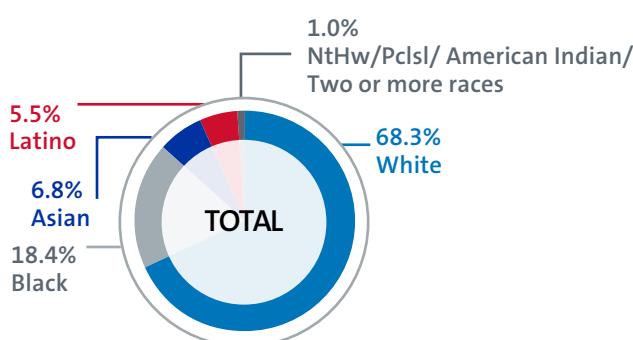
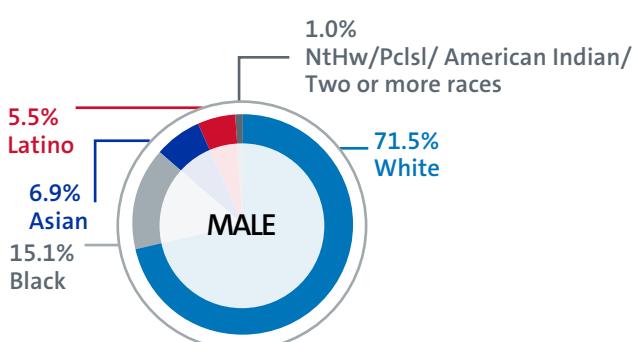
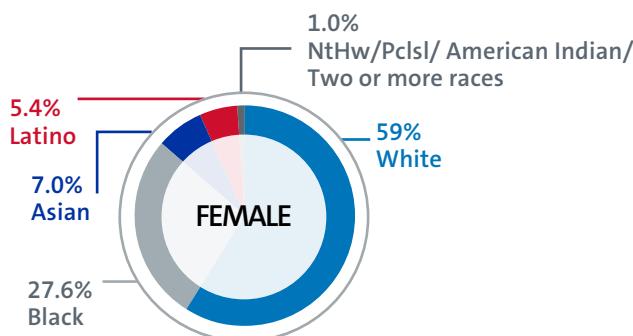


## 2019 Diversity-by-the-Numbers

### U.S. Workforce by Age Group



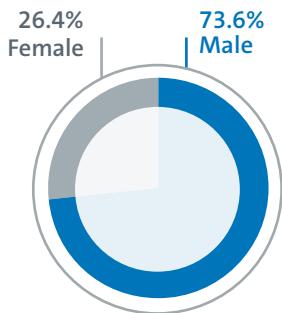
### U.S. Workforce by Self-Reported Race and Ethnicity<sup>1</sup>



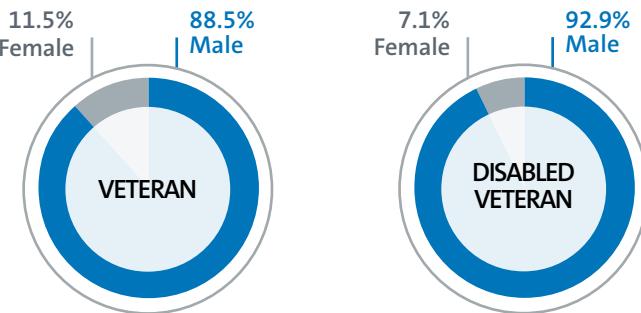
1. Please see page 165 for a breakdown of NtHw/Pcls/American Indian/Two or More Races for 2019

## 2019 Diversity-by-the-Numbers

### U.S. Workforce Self-Identified as Having a Disability

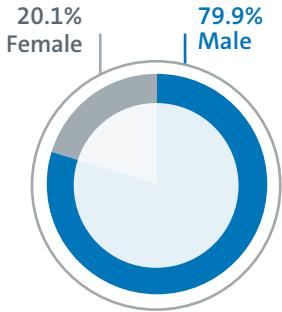


### U.S. Workforce Self-Identified Veteran Status

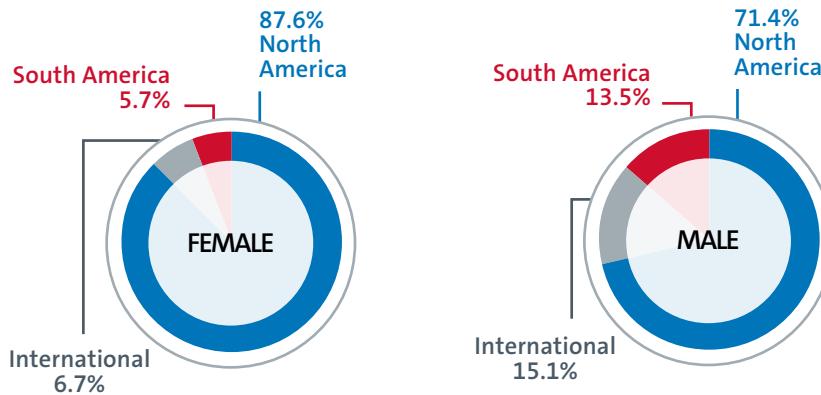


### Global Executive Level Positions

(Women in executive level job classifications)

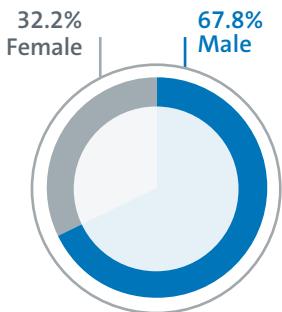


### Global Workforce by Gender



### Top Management Positions

(Women in top management positions within two levels of the CEO)





# SUSTAINING COMMUNITIES

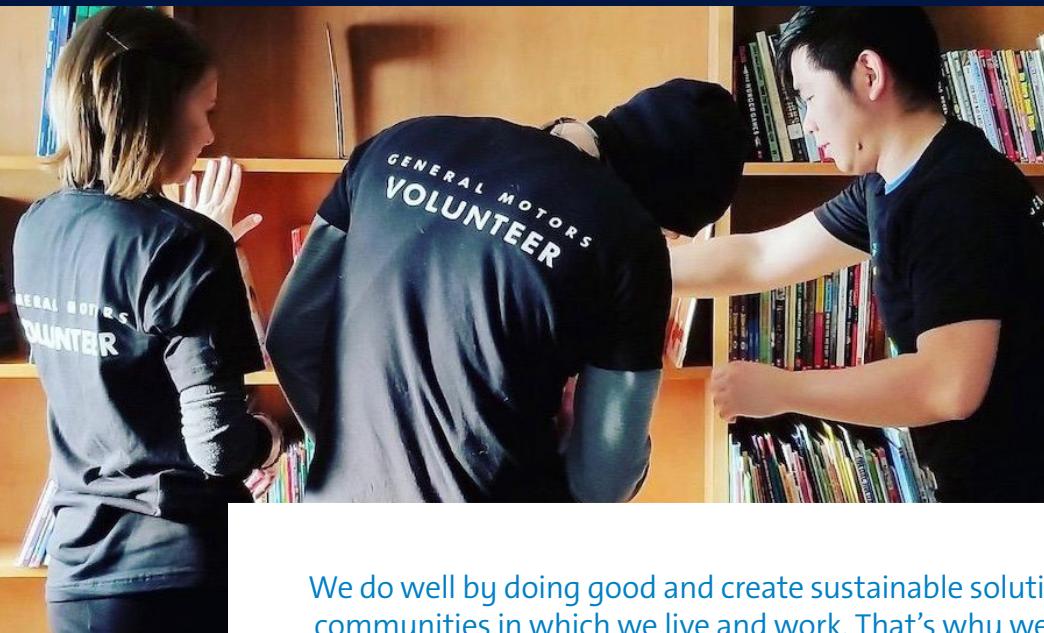
## KEY TAKEAWAYS

- GM's social impact strategy is built around three pillars: STEM education, vehicle and road safety and community development.
- Our strategy is implemented through corporate grantmaking, employee volunteerism and signature programs, including Hometown Giving and GM Student Corps.
- Our STEM education efforts work to address the shortage of STEM-educated students and professionals in the U.S., as well as the relative lack of women and minorities in STEM fields.
- Through education and training, we hope to raise awareness of road safety issues and improve the knowledge and skills of those behind the wheel.
- We define community development as generating solutions for common problems, focusing our efforts on workforce readiness, economic prosperity and innovative placemaking.

### IN THIS SECTION:

#### **121 Social Impact Strategy**

- STEM Education
- Vehicle and Road Safety
- Community Development
- GM Community Impact Grants



## SOCIAL IMPACT STRATEGY

We do well by doing good and create sustainable solutions that improve the communities in which we live and work. That's why we work to ensure that community programs are embedded in our decision-making and business processes around the world.

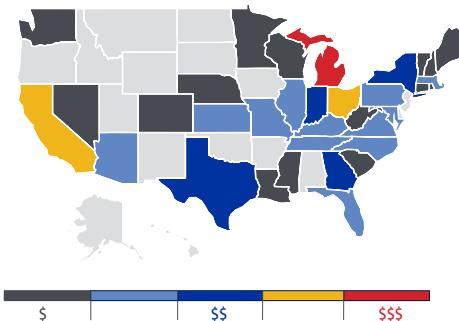
Our social impact strategy accelerates our efforts by placing a sharp focus on philanthropic investments that create smart, safe and sustainable communities around the world. At the same time, it provides a framework that allows us to measure positive social change aligned to business objectives. Outside of investments in our headquarters city of Detroit, this strategy is limited to three primary focus areas: STEM education, vehicle and road safety and community development. In 2019, GM partnered with 349 U.S.-based nonprofits with a goal of impacting an estimated 1.9 million individuals through a variety of programmatic interventions. We have aligned each of these focus areas to four United Nations Sustainable Development Goals as follows.



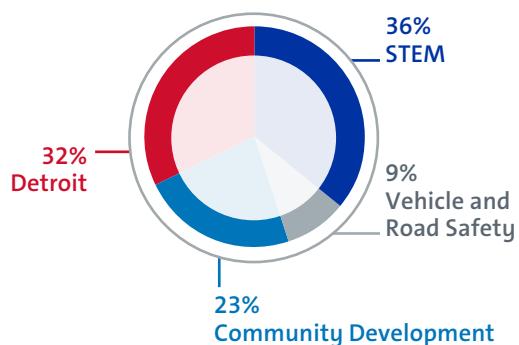
### Corporate Giving Heat Map

U.S. Giving by State, 2019

While many of our partnerships have a global impact, this heat map depicts distribution of philanthropic funds across the United States where programmatic activities occurred in 2019.



### 2019 Focus Area Funding



### Individuals Impacted by Programming

 **300,000**  
STEM

 **1.1M**  
Vehicle and Road Safety

 **339,000**  
Detroit Initiatives

 **91,000**  
Community Development

## Strategy

For each of our three pillars, we employ a four-step social impact framework to determine areas where we have the most potential for impact:

**1. ANALYZE** — Look at the landscape of a problem to understand root causes and existing pain points. Determine how GM as a business can uniquely contribute.

**2. ASSESS AND ALIGN** — Use a decision-making tool to determine what programs we will continue to support and scale, what new types of programs we will support and what programs no longer fit our priorities.

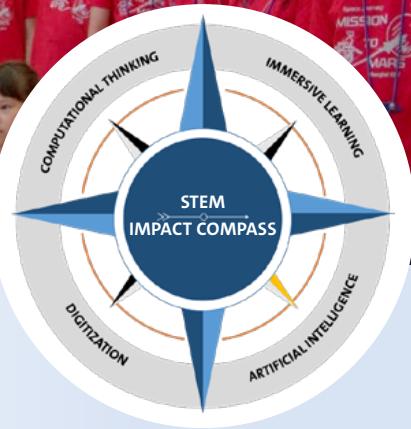
**3. ACTIVATE** — Identify specific social impact outcomes and solicit programs that will help us achieve those outcomes.

**4. MEASURE AND EVALUATE** — Quantify the impact of programs and map impact to each social outcome.

Potential partners also use this framework when applying for grants. Based on the pillar with which an organization is aligned, each applicant must explain the indicators and outcomes that their program will address. This alignment ensures our community investments are used to make quantifiable positive impacts in their respective focus areas.

## GM Impact Strategy

Advance STEM Education	Fuel Safer Practices in Vehicles	Improve Neighborhoods and Empower Residents
		
<ul style="list-style-type: none"><li>• Increase in students who earn a degree in STEM that matches market needs.</li><li>• Increase in presence, achievement and persistence for underrepresented minorities in STEM fields.</li><li>• Increase in supply of qualified teachers trained in STEM subjects.</li></ul>	<ul style="list-style-type: none"><li>• Increase in seat belt and restraint usage.</li><li>• Decrease in impaired and distracted driving.</li><li>• Increase in awareness and knowledge of effective vehicle and road safety practices.</li></ul>	<ul style="list-style-type: none"><li>• Increase the number of individuals with marketable technical and vocational skills</li><li>• Decrease the number of individuals facing economic barriers</li><li>• Increase the number of residents positively impacted by innovative community improvements</li></ul>
<b>Success:</b> More students with employable labor skills for STEM careers	<b>Success:</b> Fewer vehicle-related injuries and deaths	<b>Success:</b> More individuals with improved economic opportunity



## STEM Education

Technological innovation is driving a sea change in the automotive industry. Today's vehicles have tens of millions of lines of digital code and integrate thousands of parts. This makes STEM education more important than ever to training the workforce of tomorrow. Yet too few students are pursuing STEM-related education and degrees, leading to a looming talent gap for our future workforce.

This gap exists at all levels of education, especially in the U.S. A 2018 report by the National Science Board revealed that nearly half of all bachelor's degrees awarded in China are in STEM fields, while in the U.S., only about one in three are. The problem begins much earlier than higher education, however. The most recent Trends in International Mathematics and Science Study, for example, reports lagging scores for U.S. students as early as fourth grade. By high school, according to the Programme for International Student Assessment, the U.S. ranks 38th out of 71 countries in math ability, and 30th among the 35 Organization for Economic Cooperation and Development member countries.

We choose initiatives and partners using a research-based analysis of various challenges, such as teacher shortages, quality of teaching and learning, high attrition rates for underrepresented minorities, low student engagement and inequities and inequalities in STEM education. Given the strategic importance of STEM education to the long-term sustainability of our business, GM partnered with 51 nonprofit organizations across the U.S. in 2019 in an effort to:

- Increase the number of students who earn a STEM degree that matches market needs.
- Increase the presence, achievement and persistence of underrepresented minorities in STEM fields.
- Increase the supply of qualified teachers trained in STEM-related subjects.

The programs we support fall into four emerging areas with the potential to drive transformative solutions. We call this model the STEM Impact Compass:

### IMMERSIVE LEARNING

- SMASH Academy
- Games for Change
- National Federation for the Blind

### COMPUTATIONAL THINKING

- Black Girls Code
- Girls Who Code
- Code.org

### ARTIFICIAL INTELLIGENCE

- International Society for Technology in Education
- AI4ALL
- Technovation
- MIT Solve

### DIGITIZATION OF EDUCATION

- Benetech
- Communication Service for the Deaf
- Society of Automotive Engineers — Cybersecurity

## Using STEM Skills to Make a Difference

Not only does GM believe in the importance of training students in STEM skills, we're excited about the potential for those skills to be used for social good. That's why we've partnered with Ashoka to launch the General Motors STEM for Changemaking Challenge. The national challenge celebrates and rewards high school students with a passion for STEM who are using technology to make a difference in communities around the world. Ashoka is a nonprofit that supports some of the world's leading social entrepreneurs and works to mobilize a global community to build a world where everyone is a changemaker.

The program was open to young people ages 14 to 18 interested in making positive change and bringing other people into the changemaker movement. Award finalists received access to a \$30,000 Innovation Fund, an all-expenses paid trip to a two-day intensive Changemaker Movement Building Workshop hosted by GM and ongoing mentorship and skills development. At the workshop, the 25 finalists presented their projects and received feedback from panels of GM employees and leaders. Some of the finalists' projects included:

- [GEARup4Youth](#) — Offering robotics/programming classes to underprivileged girls at eight Boys and Girls Clubs
- [Human Projects](#) — Applying engineering principles to empower young people to become leaders in human rights



*Student changemaker Noah Tavares collaborates with GM engineers in roundtable breakout session.*

- [Operation Sustain](#) — Using technology to create engaging lessons on the basics of environmental education for youth
- [Stria Labs](#) — Helping people face the challenges of visual impairment by harnessing the power of design engineering
- [HydroAlert](#) — Combining ultrasonic sensors, IoT devices, the cloud and mobile technologies into an innovative flood warning system
- [STEM Matters](#) — Inspiring underrepresented students through coding, 3-D printing classes and children's books

GM leaders were proud to share our expertise and insights with these promising finalists. We look forward to seeing what each of these students does as they lead a new generation of problem solvers, innovators and changemakers.

## Funding Solutions to the World's Most Pressing Problems

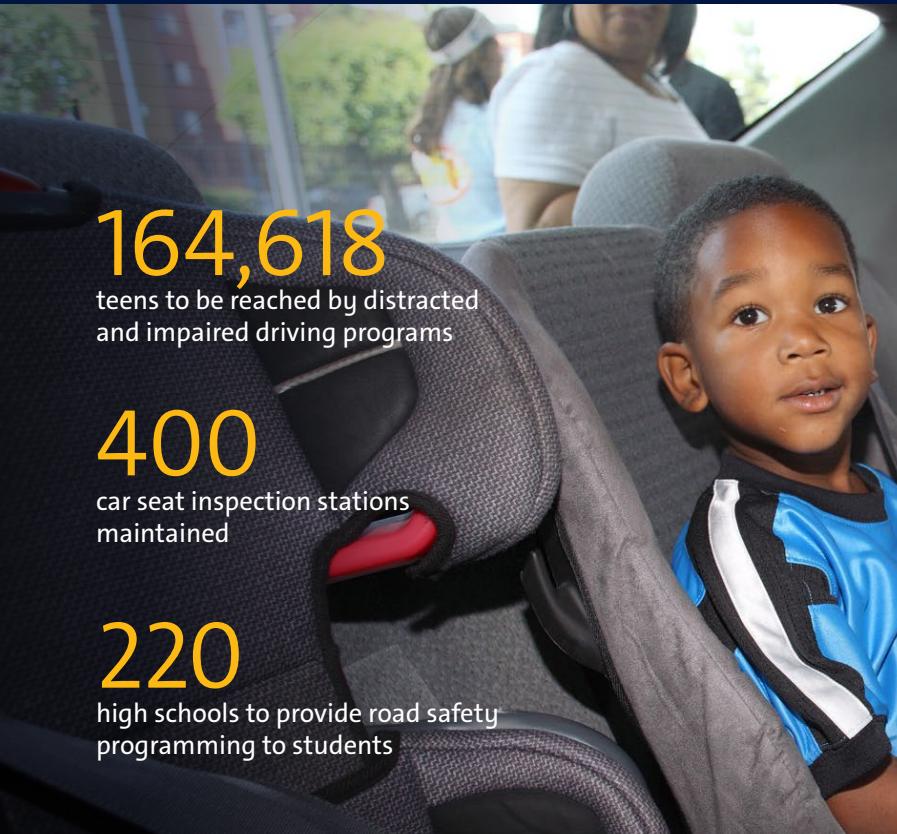
"We are all about trying to solve the world's most pressing issues. And we are all about using STEM and technology to make that happen," said Ken Kelzer, GM Vice President for Global Hardware, Components and Subsystems, at the kickoff of the 2019 MIT Solve event.

Solve is a social innovation marketplace created by the Massachusetts Institute of Technology (MIT). Each year, Solve issues four challenges across its four pillars of Economic Prosperity, Health, Learning and Sustainability to find the most promising Solver teams who will drive transformational change. Solve then acts as a marketplace, brokering partnerships between the Solver class and its global community of private, public and nonprofit leaders to accelerate positive impact.

GM sponsored Solve for the second year, pledging \$100,000 to the top innovators in two 2019 challenge categories. In the first, we sought solutions that help communities shift toward a more circular

economy through zero waste and zero carbon, including through STEM education for new design and manufacturing techniques. One winner was recognized for an innovative process for capturing carbon in air pollution to produce inks and pigments. For the Community-Driven Innovation challenge, we looked for solutions that foster prosperity and social mobility for underrepresented community members, which could also include STEM education. As in 2018, a team of GM employees representing multiple functions worked with Solve teams as thought partners. Over the next year, finalist teams will work with Solve to scale their solutions through funding, networking, mentorship and other support.

"There are innovations happening around us that are lacking access to the capital and expertise they need to reach their full potential and be scaled," Kelzer says. "Solve is a platform to help make these innovations a reality."



**164,618**

teens to be reached by distracted and impaired driving programs



**400**

car seat inspection stations maintained



**220**

high schools to provide road safety programming to students

## Vehicle and Road Safety

In keeping with GM's value that safety and quality are foundational commitments, the second focus area of our strategy guides us to support global efforts to increase safe practices in and around vehicles. We know motor vehicle crashes are the number-one cause of unintentional injury death among children ages 5-19. Further, six teens ages 16-19 die every day from motor vehicle injuries. GM aims to bridge the gap between today's transportation reality and a future of zero crashes. Our focus is on parents, grandparents, young drivers and children.

Through education and training, we hope to reduce the number of vehicle-related injuries and deaths by increasing the number of drivers and passengers who use seat belts and restraints, decreasing the number of distracted drivers, raising awareness of road safety issues and improving the knowledge and skills of those behind the wheel. We are making progress with the help of partners that include Safe Kids Worldwide, the National Safety Council and Mothers Against Drunk Driving. Our grant funding in 2019 will impact an estimated 1.1 million individuals across the U.S.

Partnering with DoSomething.org, Chevrolet supported the Not Safe for Wheels campaign to build awareness on several road safety topics. The campaign reached over 134,000 young people, 224 percent of the campaign's goal, with driver, passenger, cyclist and pedestrian safety tips. To bring the partnership to life, GM hosted a road safety challenge in which 14 high school students competed to develop solutions to seat belt use, distracted driving, speeding, out-of-the-vehicle awareness and impaired driving. GM safety experts and DoSomething staff mentored the students, while GM executives served as judges to name the winning team. All students received stipends for future educational purposes.



## Community Development

Our third focus area encompasses our efforts to enhance the quality of life in our communities around the world, and particularly in our hometown headquarters of Detroit, Michigan. Community development generates solutions for common problems. We focus on community development efforts on workforce readiness, economic prosperity and innovative placemaking. We recognize the importance of equipping individuals with essential skills to gain secure employment in a competitive economy. We partner with nonprofit organizations that work to:

- Increase the number of individuals with marketable technical and vocational skills.
- Decrease the number of individuals facing economic barriers.
- Increase the number of residents positively impacted by innovative community improvements.

Some examples of our partnerships include:

- Funding SER — Jobs for Progress to educate 250 minority women throughout the Dallas-Fort Worth Metroplex with necessary and expansive small business entrepreneurship skills.
- Investing with the Local Initiatives Support Corporation to support Financial Opportunity Centers with targeted focus on rural Midwest communities to impact an estimated 1,000 individuals.
- Partnering with KaBOOM! to invest in physical spaces that ensure children have access to balanced and active play through state-of-the-art playscapes. In 2019, GM supported builds in Detroit and Flint, Michigan, and in Phoenix, Arizona.

## GM Community Impact Grants

GM's Community Impact Grants program, now in its 10th year, enables GM facilities to support neighbors through local nonprofit partnerships. In 2019, GM plants and facilities provided more than \$2 million in grant funding to more than 150 nonprofits that will impact an estimated 90,000 people.

Examples include:

- In Flint, Michigan, Communities First, Inc. will put \$20,000 toward building a 70-unit affordable housing development.
- In Fort Wayne, Indiana, a \$10,000 grant to Fort Wayne Inc. will help create awareness among high school students about careers in manufacturing.
- In Spring, Tennessee, a \$20,000 grant to the Boys & Girls Club of Maury County will provide STEM programming for more than 200 youth.
- In Brazil, the expansion of our partnership with Safe Kids Worldwide will enable essential research, promote awareness and educate child passenger safety technicians — all to enhance the protection of child occupants in vehicles.
- In China, long-term support for China Development Research Foundation's Village Kindergarten program included GM employees spending five days in Sangzhi, Hunan to provide art, music, science and sports classes to underprivileged children. The program also leverages social and government resources to offer preschool education to children in order to help improve social and emotional development.
- In Canada, \$1.9 million was donated to nonprofits that impacted more than 150,000 Canadians. This included a partnership with five universities that sent 1,110 youth to a STEM camp supported by GM employee volunteers.

**8,583**

individuals to receive technical and vocational jobs training

**5,800**

free rides provided to alleviate transportation barriers

**4**

communities to receive new public playscapes



GM employees volunteering in Detroit's Cody Rouge community.



## GM Student Corps

GM Student Corps is a comprehensive, paid summer internship program that offers community service, life-skills training, college readiness and team building for high school students in underresourced communities. This program has worked with more than 1,340 high school and college students since 2013. In partnership with 15 local Detroit, Flint and Pontiac high schools, 150 students are divided into teams and paired with GM retirees and college interns who mentor them across the 10-week program.

In 2019, the program placed a greater focus on life skills and professional development in partnership with Urban Alliance, a national youth development nonprofit. In addition, GM employees led workshops on topics such as data analytics, app development and vehicle technology to provide students with 21st century skills.

## Keeping Kids Learning in Uncertain Times

The GM team has shown ingenuity, creativity and compassion in our responses to the COVID-19 pandemic. In addition to mobilizing our manufacturing capacity to aid response efforts, we've been actively engaged in our communities to help find solutions to new and compounding challenges, especially in education.

As teachers and students figure out a new way of learning with schools closed, GM contributed \$1 million to the DonorsChoose Keep Kids Learning program. This program allowed teachers in schools serving low-income communities to apply for \$1,000 credits to send basic resources like books, pencils, notebooks, food and cleaning supplies to students' homes. In addition to this donation, we encouraged employees to send extra thanks to teachers with short video messages, which were shared with DonorsChoose teachers across the U.S.

*GM mobilizes to support communities amid coronavirus pandemic.*



**Now more than ever, teachers deserve a round of applause for all they do to keep our children learning.**

[Play Video](#)

# For more than 100 years, Detroit has been home to GM's global headquarters.

That's why we have aligned specific areas of focus to the needs of Detroit and its residents. Last year alone, GM invested nearly **\$10.5 million** with local nonprofits that are delivering lasting change.

The roadmap below highlights some of the nonprofits we work with to help make Detroit a great place to **learn**, **work** and **thrive**.

## LEARN



### **Forgotten Harvest & Gleaners**

Reducing food insecurity and promoting classroom readiness by providing 800,000+ pounds of food for Detroit students and their families.



### **United Way**

Accelerating Detroit's revitalization through programs to provide early childhood education and build college and career pathways.



### **Technovation**

Introducing artificial intelligence concepts and technologies to families through hands-on building challenges and projects to create solutions to community problems.



### **Get Schooled Detroit**

Making the path to post-secondary education more accessible for low-income high school students by "gamifying" the college-prep process.



### **Detroit Riverfront Conservancy**

Promoting vibrancy and community in the heart of downtown Detroit through support of activities that bring residents and visitors to the riverfront.

## WORK



### **Beyond Basics**

Providing young adults and families with world-class literacy development, GED and high school diploma prep, resume and essay writing, art and culture enrichment and more, housed inside the Durfee Innovation Society.



### **Tiny Homes Detroit**

Helping to create a pathway to homeownership for low-income Detroit women by building tiny houses on reclaimed city blocks. Financial education classes and an affordable rent-to-own model will allow participants to own their tiny homes after seven years.



### **Vehicles for Change**

Building a bridge to sustainable careers for unemployed and underemployed Detroiters by providing training and mentoring for them to serve as automotive technicians.

## THRIVE



### **Cody Rouge Neighborhood**

Deeply engaging with Quicken Loans, DTE Energy and the Skillman Foundation to strengthen the Cody Rouge neighborhood in a first-of-its-kind collaboration utilizing financial and volunteer support.



### **Michigan Science Center**

Bringing STEM careers to life for 4th-8th grade girls in Detroit Public Schools with hands-on learning and mentoring through the center's STEMinista Project.

## teamGM Cares in 2019

Our global employee volunteer force encourages employees to roll up their sleeves and improve our communities around the world.



## COMMUNITY CHALLENGES FOR THE ROAD AHEAD

- Company's value to society and shareholders continues to be a balancing act
- Social impact is difficult to measure in the short-term, and long-term change is equally difficult to assign to a singular party or driver
- Technological advances continue to drive long-term strategy and profit, but resources are limited; we must balance corporate giving and R&D
- The automotive industry, in particular, is more slowly adopting the idea of shared value
- The coronavirus pandemic has caused unprecedented uncertainty and change, which has increased pressure on companies to work for the good of society

zero crashes, zero congestion, zero crashes, **zero emissions**, zero crashes, zero congestion, **zero emissions**, zero crashes, zero congestion, zero crashes, zero emissions, zero crashes, zero congestion, zero crashes, **zero emissions**, zero crashes, zero congestion, zero emissions, zero crashes, zero emissions, zero crashes, **zero emissions**

# Global Reporting Initiative (GRI) Content Index

This report has been prepared according to GRI Standards: Comprehensive Option.

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response
<b>GRI 102: General Disclosures</b>		
<b>Organizational Profile</b>		
102-1	Name of the organization	General Motors
102-2	Activities, brands, products, and services	ESG Management — Scale & Scope
102-3	Location of headquarters	Detroit, Michigan
102-4	Location of operations	ESG Management — Scale & Scope; 2019 Form 10-K pages 2, 17
102-5	Ownership and legal form	General Motors is a publicly held corporation incorporated in the state of Delaware. Our shares trade on the New York Stock Exchange and Toronto Stock Exchange.
102-6	Markets served	ESG Management — Scale & Scope; 2019 Form 10-K pages 2-3
102-7	Scale of the organization	ESG Management — Scale & Scope; 2019 Form 10-K pages 2-3
102-8	Information on employees and other workers	Developing Talented People — GM Workforce Profile The majority of our workforce is comprised of GM employees. There are no significant variations in employment numbers.
102-9	Supply chain	Supporting Supplier Responsibility
102-10	Significant changes to the organization and its supply chain	2019 Form 10-K page 85
102-11	Precautionary Principle or approach	GM does not follow the precautionary approach, but has a comprehensive risk management plan in place.
102-12	External initiatives	<ul style="list-style-type: none"> <li>CDP</li> <li>Business for Innovation Climate &amp; Energy Policy (BICEP) Coalition</li> <li>United Nations Global Compact</li> <li>U.S. Business for Climate Action</li> </ul>
102-13	Membership of associations	We work with automotive industry groups in many countries in which we operate, including, but not limited to Alliance of Automobile Manufacturers' Association (AAM) and China Association of Automobile Manufacturers (CAAM). Examples of other associations we work with include the Engine Manufacturers Association, Diesel Technology Forum, Electric Drive Transportation Association and the Fuel Cell & Hydrogen Energy Association.
<b>Strategy</b>		
102-14	Statement from senior decision-maker	ESG Management — Leadership Message
102-15	Key impacts, risks, and opportunities	ESG Management — ESG Highlights, Our Strategy, Chief Sustainability Officer Conversation; Reducing Carbon Impact; Transforming Mobility; 2019 Form 10-K pages 10-17; <a href="#">CDP Climate Change 2019</a>
<b>Ethics and Integrity</b>		
102-16	Values, principles, standards, and norms of behavior	ESG Management — Our Vision, Our Values, Ethics — Code of Conduct; <a href="#">Code of Conduct</a> ; <a href="#">Supplier Code of Conduct</a>
102-17	Mechanisms for advice and concerns about ethics	ESG Management — Our Vision, Our Values, Ethics — Code of Conduct, Reporting Concerns; <a href="#">Code of Conduct</a> ; <a href="#">Supplier Code of Conduct</a>

# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response
<b>Governance</b>		
102-18	Governance structure	ESG Management — Corporate Governance — Board Structure, ESG Governance and Oversight
102-19	Delegating authority	ESG Management — Corporate Governance — ESG Governance and Oversight
102-20	Executive-level responsibility for economic, environmental, and social topics	ESG Management — Corporate Governance — ESG Governance and Oversight
102-21	Consulting stakeholders on economic, environmental, and social topics	ESG Management — Stakeholder Engagement
102-22	Composition of the highest governance body and its committees	ESG Management — Corporate Governance — Board Structure; 2020 Proxy Statement pages 2-9, 18-21
102-23	Chair of the highest governance body	ESG Management — Corporate Governance — Board Structure
102-24	Nominating and selecting the highest governance body	2020 Proxy Statement pages 4-9, 15-18; General Motors Company Board of Directors Corporate Governance Guidelines pages 3-4
102-25	Conflicts of interest	2020 Proxy Statement pages 15, 25-29; General Motors Company Board of Directors Corporate Governance Guidelines pages 7-9, 11
102-26	Role of highest governance body in setting purpose, values, and strategy	2020 Proxy Statement page 16
102-27	Collective knowledge of highest governance body	2020 Proxy Statement page 26
102-28	Evaluating the highest governance body's performance	ESG Management — Corporate Governance — ESG Governance and Oversight; 2020 Proxy Statement pages 25-26, 40, 52-56; General Motors Company Board of Directors Corporate Governance Guidelines page 11
102-29	Identifying and managing economic, environmental, and social impacts	ESG Management — Corporate Governance — ESG Governance and Oversight
102-30	Effectiveness of risk management processes	ESG Management — Corporate Governance — Risk Management; 2020 Proxy Statement pages 22-24
102-31	Review of economic, environmental, and social topics	ESG Management — Corporate Governance — ESG Governance and Oversight; 2020 Proxy Statement page 20
102-32	Highest governance body's role in sustainability reporting	ESG Management — Corporate Governance — ESG Governance and Oversight
102-33	Communicating critical concerns	<a href="https://investor.gm.com/resources">https://investor.gm.com/resources</a> ; 2020 Proxy Statement page 27
102-34	Nature and total number of critical concerns	2020 Proxy Statement pages 27, 90-97
102-35	Remuneration policies	2020 Proxy Statement pages 10-13, 37-74; General Motors Company Board of Directors Corporate Governance Guidelines page 10
102-36	Process for determining remuneration	2020 Proxy Statement pages 10-13, 37-74; General Motors Company Board of Directors Corporate Governance Guidelines page 10
102-37	Stakeholders' involvement in remuneration	2020 Proxy Statement page 10
102-38	Annual total compensation ratio	2020 Proxy Statement page 73
102-39	Percentage increase in annual total compensation ratio	2020 Proxy Statement page 73; 2019 Proxy Statement page 67
<b>Stakeholder Engagement</b>		
102-40	List of stakeholder groups	ESG Management — Stakeholder Engagement
102-41	Collective bargaining agreements	2019 Form 10-K page 8
102-42	Identifying and selecting stakeholders	ESG Management — Stakeholder Engagement
102-43	Approach to stakeholder engagement	ESG Management — Stakeholder Engagement
102-44	Key topics and concerns raised	ESG Management — Stakeholder Engagement

# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response
<b>Reporting Practice</b>		
102-45	Entities included in the consolidated financial statements	2019 Form 10-K page 1
102-46	Defining report content and topic Boundaries	ESG Management — Reporting Practices
102-47	List of material topics	ESG Management — Reporting Practices
102-48	Restatements of information	Any restatements, and reasons for such, are footnoted as part of the data presentation within the body of the report.
102-49	Changes in reporting	Changes have been noted in footnotes where applicable.
102-50	Reporting period	ESG Management — Reporting Practices
102-51	Date of most recent report	ESG Management — Reporting Practices
102-52	Reporting cycle	ESG Management — Reporting Practices
102-53	Contact point for questions regarding the report	gm.sustainability@gm.com
102-54	Claims of reporting in accordance with the GRI Standards	ESG Management — Reporting Practices
102-55	GRI content index	ESG Management — Reporting Practices
102-56	External assurance	ESG Management — Reporting Practices
<b>GRI 200: Economic</b>		
<b>GRI 201: Economic Performance</b>		
103-1	Explanation of the material topic and its Boundary	ESG Management — Leadership Message; Reducing Carbon Impact — Vehicle Emissions, 2019 Form 10-K page 19
103-2	The management approach and its components	ESG Management — Leadership Message; Reducing Carbon Impact 2019 Form 10-K page 19
103-3	Evaluation of the management approach	ESG Management — Leadership Message; Reducing Carbon Impact 2019 Form 10-K page 19
201-1	Direct economic value generated and distributed	2019 Form 10-K pages 19, 47
201-2	Financial implications and other risks and opportunities due to climate change	Reducing Carbon Impact; 2019 Form 10-K pages 10, 11, 14
201-3	Defined benefit plan obligations and other retirement plans	2019 Form 10-K pages 71-72
201-4	Financial assistance received from government	GM did not receive any significant financial assistance from any government in 2019
<b>GRI 203: Indirect Economic Impacts</b>		
103-1	Explanation of the material topic and its Boundary	Sustaining Communities
103-2	The management approach and its components	Sustaining Communities
103-3	Evaluation of the management approach	Sustaining Communities
203-2	Significant indirect economic impacts	Sustaining Communities

# GRI Content Index

GENERAL DISCLOSURES		
Disclosure Number	Description	Reference/Response
<strong>GRI 204: Procurement Practices</strong>		
103-1	Explanation of the material topic and its Boundary	Supporting Supplier Responsibility
103-2	The management approach and its components	Supporting Supplier Responsibility
103-3	Evaluation of the management approach	Supporting Supplier Responsibility
204-1	Proportion of spending on local suppliers	Supporting Supplier Responsibility — Localization The term “local suppliers” refers to suppliers operating in the country where a GM plant is located.
<strong>GRI 205: Anti-corruption</strong>		
103-1	Explanation of the material topic and its Boundary	ESG Management — Ethics; <a href="#">Code of Conduct</a>
103-2	The management approach and its components	ESG Management — Ethics; <a href="#">Code of Conduct</a>
103-3	Evaluation of the management approach	ESG Management — Ethics
205-1	Operations assessed for risks related to corruption	ESG Management — Ethics All operations are assessed for risks related to corruption. No significant risks have been identified.
205-2	Communication and training about anti-corruption policies and procedures	ESG Management — Ethics - Ethics Training and Education
205-3	Confirmed incidents of corruption and actions taken	Allegations of corruption/bribery are formally investigated to conclusion. The investigation results are provided to pertinent stakeholders for remediation and corrective action.
<strong>GRI 300: Environmental</strong>		
<strong>GRI 301: Materials</strong>		
103-1	Explanation of the material topic and its Boundary	Designing for the Environment
103-2	The management approach and its components	Designing for the Environment
103-3	Evaluation of the management approach	Designing for the Environment
301-2	Recycled input materials used	Designing for the Environment — Recycled Content in GM Vehicles
<strong>GRI 302: Energy</strong>		
103-1	Explanation of the material topic and its Boundary	Reducing Carbon Impact
103-2	The management approach and its components	Reducing Carbon Impact
103-3	Evaluation of the management approach	Reducing Carbon Impact

## GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response																																				
<b>GRI 302: Energy (continued)</b>																																						
302-1	Energy consumption within the organization	<table border="1"> <thead> <tr> <th>Energy consumption</th><th>GJ</th><th>Comment</th></tr> </thead> <tbody> <tr> <td>Total fuel consumption from nonrenewable sources</td><td>2015: 35,297,119 2016: 34,444,439 2017: 30,313,931 2018: 30,069,475 2019: 27,112,428</td><td>Includes all facility fuel for process and facility heat. Includes Natural Gas, LPG, Coke, Oil and Diesel. Does not include landfill gas.</td></tr> <tr> <td>Total fuel consumption from renewable sources</td><td>2015: 1,187,937 2016: 2,981,123 2017: 1,118,454 2018: 1,100,142 2019: 6,535,854</td><td>Includes landfill gas use and renewable electricity generated from solar and wind or purchased under a Purchase Power Agreement</td></tr> <tr> <td>Total electricity consumption</td><td>2015: 32,086,922 2016: 33,364,403 2017: 29,778,155 2018: 29,721,928 2019: 21,029,706</td><td>Nonrenewable electricity</td></tr> <tr> <td>Heating consumption</td><td>N/A</td><td>Included in total fuel consumption</td></tr> <tr> <td>Cooling consumption</td><td>N/A</td><td>Included in electricity</td></tr> <tr> <td>Steam consumption</td><td>2015: 4,663,710 2016: 4,105,376 2017: 1,610,934 2018: 2,124,961 2019: 1,664,478</td><td>Purchased steam and delivered heat, including purchased steam from renewable sources</td></tr> <tr> <td>Electricity sold</td><td>N/A</td><td></td></tr> <tr> <td>Heating sold</td><td>N/A</td><td></td></tr> <tr> <td>Cooling sold</td><td>N/A</td><td></td></tr> <tr> <td>Steam sold</td><td>N/A</td><td></td></tr> <tr> <td>Total energy consumption</td><td>2015: 73,235,689 2016: 74,895,341 2017: 62,801,243 2018: 63,016,506 2019: 56,342,466</td><td></td></tr> </tbody> </table>	Energy consumption	GJ	Comment	Total fuel consumption from nonrenewable sources	2015: 35,297,119 2016: 34,444,439 2017: 30,313,931 2018: 30,069,475 2019: 27,112,428	Includes all facility fuel for process and facility heat. Includes Natural Gas, LPG, Coke, Oil and Diesel. Does not include landfill gas.	Total fuel consumption from renewable sources	2015: 1,187,937 2016: 2,981,123 2017: 1,118,454 2018: 1,100,142 2019: 6,535,854	Includes landfill gas use and renewable electricity generated from solar and wind or purchased under a Purchase Power Agreement	Total electricity consumption	2015: 32,086,922 2016: 33,364,403 2017: 29,778,155 2018: 29,721,928 2019: 21,029,706	Nonrenewable electricity	Heating consumption	N/A	Included in total fuel consumption	Cooling consumption	N/A	Included in electricity	Steam consumption	2015: 4,663,710 2016: 4,105,376 2017: 1,610,934 2018: 2,124,961 2019: 1,664,478	Purchased steam and delivered heat, including purchased steam from renewable sources	Electricity sold	N/A		Heating sold	N/A		Cooling sold	N/A		Steam sold	N/A		Total energy consumption	2015: 73,235,689 2016: 74,895,341 2017: 62,801,243 2018: 63,016,506 2019: 56,342,466	
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Total energy consumption	2015: 73,235,689 2016: 74,895,341 2017: 62,801,243 2018: 63,016,506 2019: 56,342,466																																					
302-2	Energy consumption outside of the organization	3,183,499,282 GJ																																				
302-3	Energy intensity	<p>2.13 MWH/vehicle</p> <p>This is based on the production of 7,332,373 vehicles and includes all of our energy sources. The boundary for this is within the scope of our organization.</p>																																				
302-4	Reduction of energy consumption	<p>1,384,718 GJ</p> <p>All types of facility energy were included in the reductions. The basis for calculation is absolute reduction from activities in 2019. Standards, methodologies and assumptions used were good engineering practices.</p>																																				
302-5	Reductions in energy requirements of products and services	<p>Reducing Carbon Impact — Vehicle Emissions 76,026,924 GJ</p> <p>Reductions in energy consumption of our products can be contributed to the addition of electric vehicles in China and increased production of electric vehicles versus internal combustion engine vehicles. Rationale for this calculation includes increased efficiencies of Chevrolet Bolt EV, Volt as compared to Chevrolet Cruze, Buick Velite as compared to Buick Regal TourX, and Bajoun E100 and E200 compared to Spark. Standards, methodologies, assumptions and calculation tools used can be found at <a href="https://www.fueleconomy.gov">https://www.fueleconomy.gov</a>. Total life cycle GJ is calculated over 10 years. Total GHG emissions avoided is 3,127,505 metric tons.</p>																																				

# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response																														
<b>GRI 303: Water and Effluents</b>																																
103-1	Explanation of the material topic and its Boundary	Designing for the Environment — Water Stewardship																														
103-2	The management approach and its components	Designing for the Environment — Water Stewardship																														
103-3	Evaluation of the management approach	Designing for the Environment — Water Stewardship																														
303-1	Interactions with water as a shared resource	A combination of municipal, wells, rainwater, surface and reuse are sources of GM's water use. Water is critical to automobile production and to building occupants for drinking water and hygiene. Local facility knowledge provides information on water supply impacts for current operations, and we engage in the use of WRI Aqueduct for future forecasting. Risks in current operations are mitigated with either alternate supply or water reuse working with local utilities. GM engages with over 300 suppliers through CDP Water Supply Chain and other organizations like AIAG. Company goals were set to continuously improve and reduce intensity from 2010 to 2020 by 15 percent. Water is integrated into our business plan, and each facility has a target for year-over-year improvement.																														
303-2	Management of water discharge-related impacts	General Motors maintains an environmental performance criteria document on water pollution control (EPC-003). Within this document, minimum concentration-based performance requirements are defined for wastewater discharge to surface water and for wastewater discharges to external wastewater systems. Where local permit limits are more stringent, those supersede the GM requirements. Where no permit limit is provided, the performance requirements are used.																														
303-3	Water withdrawal	<table border="1"> <thead> <tr> <th>Total water withdrawal from all areas, by source</th> <th>Megaliters</th> </tr> </thead> <tbody> <tr> <td>Surface water</td> <td>0</td> </tr> <tr> <td>Groundwater</td> <td>3,186</td> </tr> <tr> <td>Seawater</td> <td>0</td> </tr> <tr> <td>Produced Water</td> <td>0</td> </tr> <tr> <td>Third-party water</td> <td>28,069</td> </tr> <tr> <th>Total water withdrawal from all areas with water stress, by source</th> <th>Megaliters</th> </tr> <tr> <td>Surface Water</td> <td>0</td> </tr> <tr> <td>Groundwater</td> <td>1,515</td> </tr> <tr> <td>Seawater</td> <td>0</td> </tr> <tr> <td>Produced water</td> <td>0</td> </tr> <tr> <td>Third-party water</td> <td>1,855</td> </tr> <tr> <th>Total water withdrawal by source</th> <th>Megaliters</th> </tr> <tr> <td>Freshwater (&lt;1,000 mg/L Total Dissolved Solids)</td> <td>3,370</td> </tr> <tr> <td>Other water (&gt;1,000 mg/L Total Dissolved Solids)</td> <td>0</td> </tr> </tbody> </table> <p><i>Meter and invoice information were used to gather data. Stress sites determined by Aqueduct Extreme stress</i></p>	Total water withdrawal from all areas, by source	Megaliters	Surface water	0	Groundwater	3,186	Seawater	0	Produced Water	0	Third-party water	28,069	Total water withdrawal from all areas with water stress, by source	Megaliters	Surface Water	0	Groundwater	1,515	Seawater	0	Produced water	0	Third-party water	1,855	Total water withdrawal by source	Megaliters	Freshwater (<1,000 mg/L Total Dissolved Solids)	3,370	Other water (>1,000 mg/L Total Dissolved Solids)	0
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# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response																						
<b>GRI 303: Water and Effluents (continued)</b>																								
303-4	Water discharge	<table border="1"> <thead> <tr> <th>Total water discharge, by destination</th> <th>Megaliters</th> </tr> </thead> <tbody> <tr> <td>Surface water</td> <td>12,016</td> </tr> <tr> <td>Groundwater</td> <td>139</td> </tr> <tr> <td>Seawater</td> <td>0</td> </tr> <tr> <td>Third-party water</td> <td>15,468</td> </tr> <tr> <th>Total water discharge, by category*</th> <th>Megaliters</th> </tr> <tr> <td>Freshwater (&lt;1,000 mg/L Total Dissolved Solids)</td> <td>26,964</td> </tr> <tr> <td>Other water (&gt;1,000 mg/L Total Dissolved Solids)</td> <td>114</td> </tr> <tr> <th>Total water discharge to all areas with water stress, by category*</th> <th>Megaliters</th> </tr> <tr> <td>Freshwater (&lt;1,000 mg/L Total Dissolved Solids)</td> <td>26,964</td> </tr> <tr> <td>Other water (&gt;1,000 mg/L Total Dissolved Solids)</td> <td>114</td> </tr> </tbody> </table>	Total water discharge, by destination	Megaliters	Surface water	12,016	Groundwater	139	Seawater	0	Third-party water	15,468	Total water discharge, by category*	Megaliters	Freshwater (<1,000 mg/L Total Dissolved Solids)	26,964	Other water (>1,000 mg/L Total Dissolved Solids)	114	Total water discharge to all areas with water stress, by category*	Megaliters	Freshwater (<1,000 mg/L Total Dissolved Solids)	26,964	Other water (>1,000 mg/L Total Dissolved Solids)	114
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		<p>*Accounts only for direct surface water discharges from GM facilities globally.</p> <p>Priority substances of concern for which discharges are treated: GM has established minimum standards for effluent discharges globally to protect water quality and human health. The GM standards were developed for appropriate industrial and sanitary wastewater pollutants in discharges from GM facilities. All GM facilities are subject to the GM standards, as well as applicable local/state/country discharge requirements and permit requirements. The GM standards are often more stringent.</p>																						
303-5	Water consumption	<table border="1"> <thead> <tr> <th>Total water consumption</th> <th>Megaliters</th> </tr> </thead> <tbody> <tr> <td>From all areas</td> <td>9,376</td> </tr> <tr> <td>From all areas with water stress</td> <td>1,011</td> </tr> </tbody> </table> <p>GM calculates water consumption based on water withdrawal times and engineering calculation for evaporation of 30 percent. Using the formula withdrawal minus discharge provides close to zero consumption due to groundwater infiltration at plant sites.</p> <p>GM experiences water stress at three sites in Mexico and two sites in China. We have mitigated the risk by conservation, recycling or reusing wastewater in the manufacturing process. Additionally, at one site in China, the government has provided a backup source of water to mitigate water stress risk.</p>	Total water consumption	Megaliters	From all areas	9,376	From all areas with water stress	1,011																
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<b>GRI 305: Emissions</b>																								
103-1	Explanation of the material topic and its Boundary	Reducing Carbon Impact																						
103-2	The management approach and its components	Reducing Carbon Impact																						
103-3	Evaluation of the management approach	Reducing Carbon Impact																						
305-1	Direct (Scope 1) GHG emissions	<p>Baseline year 2010, which was the first full year of operation as the new General Motors Corporation, and includes all facilities under GM operational control. Calculation includes CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O. Reporting is based on GHG Protocol, and the source of emission factors is regulatory or IPCC Good Practice Guidelines. 2019 GHG emissions are as follows:</p> <p>Gross direct emissions: 1,589,700 Metric tons CO<sub>2</sub></p>																						

# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response								
<b>GRI 305: Emissions (continued)</b>										
305-2	Energy indirect (Scope 2) GHG emissions	<p>Baseline year 2010, which was the first full year of operation as the new General Motors Corporation, and includes all facilities under GM operational control. Calculation includes CO2, CH4 and N2O. Reporting is based on GHG Protocol, and the source of emission factors is regulatory or IPCC. 2019 GHG emissions are as follows:</p> <p>Gross location-based indirect emissions: 4,381,970 Metric tons CO2e</p> <p>Gross market-based indirect emissions: 3,721,875 Metric tons CO2e</p>								
305-3	Other indirect (Scope 3) GHG emissions	<p>Calculation includes CO2, CH4, N2O, HFCs, PFCs, SF6 and NF3. Reporting is based on GHG Protocol, and the source of emission factors is regulatory or IPCC. This represents our Scope 3 emissions for 2019:</p> <p>Gross other indirect emissions: 249,384,317 Metric tons CO2e</p>								
305-4	GHG emissions intensity	<p>0.72 metric tons CO2e/vehicle</p> <p>Calculated on the basis of 7,332,373 production vehicles; includes Scope 1 and 2 emissions and all GHG gases.</p>								
305-5	Reduction of GHG emissions	<p>157,979 metric tons CO2</p> <p>Calculated using GHG Protocol on the basis of year-over-year reduction in 2019 from 2018; and includes all GHG gases in Scope 1 and 2 emissions. We use internal project tracking tools to obtain this data.</p>								
305-6	Emissions of ozone-depleting substances (ODS)	<p>0.663 metric tons</p> <p>Calculation includes R-123, R-500, R-22, R-113, R141B, R-502, R-409A. Figures represent actual emissions; if actual emission data was not available, an emission factor of 8.5 percent of the total equipment charge by refrigerant was used to estimate emissions. The 8.5 percent rate is based on the median range of leakage rates estimates provided by the IPCC Good Practice Guidelines and Uncertainty Management in National Greenhouse Gas Inventories (2000).</p>								
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	<p>VOC emissions are composed of the following emission units: ELPO, Primer, Topcoat, Final Repair and Cleaning Solvents, which are considered the major sources of VOC emissions, such as maintenance painting, sealers, etc. These data include data from some GM JVs.</p> <p>VOC (metric tons): 0.00235</p> <p>NOX (metric tons): 11,528</p> <p>SOX (metric tons): 30.4</p>								
<b>GRI 306: Effluents and Waste</b>										
103-1	Explanation of the material topic and its Boundary	Designing for the Environment — Waste Minimization								
103-2	The management approach and its components	Designing for the Environment — Waste Minimization								
103-3	Evaluation of the management approach	Designing for the Environment — Waste Minimization								
306-1	Water discharge by quality and destination	<p>Typically, effluent is treated via biological or physical/chemical methods, and in some instances by both. Water quality data is based on analytical testing.</p> <table border="1"> <thead> <tr> <th>Quality of the water, including treatment method</th> <th>Million m3</th> </tr> </thead> <tbody> <tr> <td>Direct discharge (to surface water body)</td> <td>12.02</td> </tr> <tr> <td>Indirect discharge (to treatment facility)</td> <td>15.47</td> </tr> <tr> <td>Discharge to groundwater</td> <td>0.14</td> </tr> </tbody> </table>	Quality of the water, including treatment method	Million m3	Direct discharge (to surface water body)	12.02	Indirect discharge (to treatment facility)	15.47	Discharge to groundwater	0.14
Quality of the water, including treatment method	Million m3									
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# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response																																												
<b>GRI 306: Effluents and Waste (Continued)</b>																																														
306-2	Waste by type and disposal method	<p>Includes hazardous and nonhazardous waste from manufacturing operations and some nonmanufacturing and JV facilities, excluding event waste from construction, demolition and remediation. Event waste is recycled to the greatest extent possible and tracked separately. Waste figures may also include vendor tooling used to produce proprietary GM parts.</p> <table border="1"> <thead> <tr> <th>Disposal Method (Metric Tons)</th><th>Total</th><th>Hazardous</th><th>Nonhazardous</th></tr> </thead> <tbody> <tr> <td>Reuse</td><td>67,925</td><td>1,540</td><td>66,385</td></tr> <tr> <td>Recycling</td><td>1,355,174</td><td>11,922</td><td>1,343,252</td></tr> <tr> <td>Composting</td><td>5,779</td><td>28</td><td>5,751</td></tr> <tr> <td>Recovery, including energy recovery</td><td>71,222</td><td>22,879</td><td>48,343</td></tr> <tr> <td>Incinerating (mass burn)</td><td>16,802</td><td>13,345</td><td>3,457</td></tr> <tr> <td>Deep well injection</td><td>0</td><td>0</td><td>0</td></tr> <tr> <td>Landfill</td><td>230,907</td><td>2,754</td><td>228,153</td></tr> <tr> <td>On-site storage</td><td>0</td><td>0</td><td>0</td></tr> <tr> <td>Other (includes microwaving, enclaves, plasma processing and other treatments)</td><td>22,578</td><td>4,669</td><td>17,909</td></tr> <tr> <td><b>Total</b></td><td><b>1,770,387</b></td><td><b>57,137</b></td><td><b>1,713,250</b></td></tr> </tbody> </table>	Disposal Method (Metric Tons)	Total	Hazardous	Nonhazardous	Reuse	67,925	1,540	66,385	Recycling	1,355,174	11,922	1,343,252	Composting	5,779	28	5,751	Recovery, including energy recovery	71,222	22,879	48,343	Incinerating (mass burn)	16,802	13,345	3,457	Deep well injection	0	0	0	Landfill	230,907	2,754	228,153	On-site storage	0	0	0	Other (includes microwaving, enclaves, plasma processing and other treatments)	22,578	4,669	17,909	<b>Total</b>	<b>1,770,387</b>	<b>57,137</b>	<b>1,713,250</b>
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<b>Total</b>	<b>1,770,387</b>	<b>57,137</b>	<b>1,713,250</b>																																											
306-3	Significant spills	There were zero significant spills in 2019.																																												
306-4	Transport of hazardous waste	<table border="1"> <tbody> <tr> <td>Metric Tons of Hazardous waste transported</td> <td>3,077</td> </tr> <tr> <td>Hazardous waste imported</td> <td>0</td> </tr> <tr> <td>Hazardous waste exported</td> <td>0</td> </tr> <tr> <td>Metric Tons hazardous waste treated</td> <td>274</td> </tr> <tr> <td>Percent hazardous waste shipped internationally</td> <td>0</td> </tr> </tbody> </table> <p>Waste shipments are weighed and reported directly into centralized data reporting tool (GMR2) based on actual shipment weight. In the event actual weight is not available, internal procedures are in place to estimate and/or calculate weight based on standard industry practice.</p> <ul style="list-style-type: none"> <li>• Data provided is for U.S. only</li> <li>• Values were rounded to the nearest whole number</li> <li>• Hazardous waste is defined based on US EPA regulation</li> <li>• Data does not include remediation, construction or demolition, which is consistent with our sustainability waste reporting</li> <li>• Treatment is conducted off site and can consist of: solidification/stabilization, thermal treatment, wastewater treatment, other waste treatment or transfer to a waste broker.</li> </ul>	Metric Tons of Hazardous waste transported	3,077	Hazardous waste imported	0	Hazardous waste exported	0	Metric Tons hazardous waste treated	274	Percent hazardous waste shipped internationally	0																																		
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<b>GRI 307: Environmental Compliance</b>																																														
103-1	Explanation of the material topic and its Boundary	ESG Management — Environmental Governance; <a href="#">Global Environmental Policy</a>																																												
103-2	The management approach and its components	ESG Management — Environmental Governance; <a href="#">Global Environmental Policy</a>																																												
103-3	Evaluation of the management approach	ESG Management — Environmental Governance																																												
307-1	Non-compliance with environmental laws and regulations	ESG Management — Environmental Governance																																												

# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response										
<b>GRI 308: Supplier Environmental Assessment</b>												
103-1	Explanation of the material topic and its Boundary	Supporting Supplier Responsibility; <a href="#">Supplier Code of Conduct</a>										
103-2	The management approach and its components	Supporting Supplier Responsibility; <a href="#">Supplier Code of Conduct</a>										
103-3	Evaluation of the management approach	Supporting Supplier Responsibility										
308-1	New suppliers that were screened using environmental criteria	100 percent of new suppliers are screened for environmental criteria.										
308-2	Negative environmental impacts in the supply chain and actions taken	Supporting Supplier Responsibility										
<b>GRI 400: Social</b>												
<b>GRI 401: Employment</b>												
103-1	Explanation of the material topic and its Boundary	Developing Talented People										
103-2	The management approach and its components	Developing Talented People										
103-3	Evaluation of the management approach	Developing Talented People										
401-1	New employee hires and employee turnover	5,227 global salaried candidates hired 10.7 percent total turnover rate 4.7 percent volunteer turnover rate <i>Attrition data is U.S. Salary and Hourly population. Total turnover rate increase due to GM Separation Program in early 2019.</i>										
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<table border="1"> <thead> <tr> <th>Country</th><th>Benefits</th></tr> </thead> <tbody> <tr> <td>U.S.</td><td>Flexible service employees are eligible for the same benefits. However, they pay a higher monthly contribution for health care coverage.</td></tr> <tr> <td>Canada</td><td>For Job Share employees, the Health Care Spending Account/Wellness contribution is 50 percent that of a full-time employee. They also pay a higher monthly contribution for health care coverage.</td></tr> <tr> <td>Countries with no differences in benefits full-time vs. part-time</td><td>South America, Israel, Australia, New Zealand</td></tr> <tr> <td>Countries with no part-time employees</td><td>Mexico, China, South Korea, Thailand, UAE, Japan, Indonesia, India</td></tr> </tbody> </table>	Country	Benefits	U.S.	Flexible service employees are eligible for the same benefits. However, they pay a higher monthly contribution for health care coverage.	Canada	For Job Share employees, the Health Care Spending Account/Wellness contribution is 50 percent that of a full-time employee. They also pay a higher monthly contribution for health care coverage.	Countries with no differences in benefits full-time vs. part-time	South America, Israel, Australia, New Zealand	Countries with no part-time employees	Mexico, China, South Korea, Thailand, UAE, Japan, Indonesia, India
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Countries with no differences in benefits full-time vs. part-time	South America, Israel, Australia, New Zealand											
Countries with no part-time employees	Mexico, China, South Korea, Thailand, UAE, Japan, Indonesia, India											
401-3	Parental leave	All U.S. salaried employees are eligible to receive paid parental leave benefits consisting of two full weeks of paid time off for newborn or adoption. In 2019, there were 1,127 employees who received these benefits — 262 women and 865 men.										
<b>GRI 402: Labor/Management Relations</b>												
103-1	Explanation of the material topic and its Boundary	Developing Talented People — Labor Relations										
103-2	The management approach and its components	Developing Talented People — Labor Relations										
103-3	Evaluation of the management approach	Developing Talented People — Labor Relations										
402-1	Minimum notice periods regarding operational changes	Nearly all of our labor agreements call for regular meetings between top union officials and local GM management. We also have formal processes in place to notify all workers of work stoppages.										

# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response				
<b>GRI 403: Occupational Health and Safety</b>						
103-1	Explanation of the material topic and its Boundary	Keeping People Safe — Workplace Safety, Global Workplace Safety Strategy				
103-2	The management approach and its components	Keeping People Safe — Workplace Safety, Global Workplace Safety Strategy				
103-3	Evaluation of the management approach	Keeping People Safe — Workplace Safety, Global Workplace Safety Strategy				
403-1	Occupational health and safety management system	Keeping People Safe — Workplace Safety, Global Workplace Safety Strategy				
403-2	Hazard identification, risk assessment, and incident investigation	Keeping People Safe — Workplace Safety, Global Workplace Safety Strategy				
403-3	Occupational health services	Keeping People Safe — Workplace Safety				
403-4	Worker participation, consultation, and communication on occupational health and safety	Keeping People Safe — Workplace Safety				
403-5	Worker training on occupational health and safety	Keeping People Safe — Workplace Safety				
403-6	Promotion of worker health	Keeping People Safe — Workplace Safety				
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Keeping People Safe — Workplace Safety				
403-8	Workers covered by an occupational health and safety management system	Keeping People Safe — Workplace Safety				
403-9	Work-related injuries	Keeping People Safe — Workplace Safety				
403-10	Work-related ill health	<p><b>Occupational Illness Frequency Rate</b></p> <table border="1"> <tr> <td>Employees (n/million work hours)</td> <td>0.84</td> </tr> <tr> <td>Data coverage (% of employees)</td> <td>98</td> </tr> </table>	Employees (n/million work hours)	0.84	Data coverage (% of employees)	98
Employees (n/million work hours)	0.84					
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<b>GRI 404: Training and Education</b>						
103-1	Explanation of the material topic and its Boundary	Developing Talented People — Talent Development, Labor Relations — Displaced Workers				
103-2	The management approach and its components	Developing Talented People — Talent Development, Labor Relations — Displaced Workers				
103-3	Evaluation of the management approach	Developing Talented People — Talent Development, Labor Relations — Displaced Workers				
404-1	Average hours of training per year per employee	7.32 hours, excluding compliance training				
404-2	Programs for upgrading employee skills and transition assistance programs	Developing Talented People — Talent Development, Labor Relations — Displaced Workers				
404-3	Percentage of employees receiving regular performance and career development reviews	100 percent of eligible salaried employees receive regular performance and career development reviews.				

# GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response																							
<b>GRI 405: Diversity and Equal Opportunity</b>																									
103-1	Explanation of the material topic and its Boundary	Fostering Diversity, Equity & Inclusion																							
103-2	The management approach and its components	Fostering Diversity, Equity & Inclusion																							
103-3	Evaluation of the management approach	Fostering Diversity, Equity & Inclusion																							
405-1	Diversity of governance bodies and employees	ESG Management — Corporate Governance — Board Structure; Developing Talented People - GM Workforce Profile; Fostering Diversity, Equity & Inclusion — 2019 Diversity-by-the-Numbers																							
		<table border="1"> <thead> <tr> <th>Board Makeup:</th> </tr> </thead> <tbody> <tr> <td><b>Gender</b></td> <td></td> </tr> <tr> <td>Male</td> <td>5</td> </tr> <tr> <td>Female</td> <td>6</td> </tr> <tr> <td><b>Age Group</b></td> <td></td> </tr> <tr> <td>Under 30 Years</td> <td>0</td> </tr> <tr> <td>30-50 Years</td> <td>0</td> </tr> <tr> <td>50+ years</td> <td>11</td> </tr> <tr> <td><b>Diversity</b></td> <td></td> </tr> <tr> <td>White</td> <td>10</td> </tr> <tr> <td>African-American</td> <td>1</td> </tr> <tr> <td>Latino</td> <td>0</td> </tr> </tbody> </table>	Board Makeup:	<b>Gender</b>		Male	5	Female	6	<b>Age Group</b>		Under 30 Years	0	30-50 Years	0	50+ years	11	<b>Diversity</b>		White	10	African-American	1	Latino	0
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405-2	Ratio of basic salary and remuneration of women to men	<p>Salary information is based on annual salaries for the global salaried workforce.</p> <table border="1"> <thead> <tr> <th>(Base Salary Only)</th> <th>Female to Male Ratio</th> </tr> </thead> <tbody> <tr> <td>Executive Level</td> <td>100.3 percent</td> </tr> <tr> <td>Management Level</td> <td>100.3 percent</td> </tr> <tr> <td>Nonmanagement Level</td> <td>97.0 percent</td> </tr> </tbody> </table>	(Base Salary Only)	Female to Male Ratio	Executive Level	100.3 percent	Management Level	100.3 percent	Nonmanagement Level	97.0 percent															
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<b>GRI 407: Freedom of Association and Collective Bargaining</b>																									
103-1	Explanation of the material topic and its Boundary	Developing Talented People — Labor Relations; Supporting Supplier Responsibility — Human Rights; <a href="#">Code of Conduct</a> ; <a href="#">Supplier Code of Conduct</a>																							
103-2	The management approach and its components	Developing Talented People — Labor Relations; Supporting Supplier Responsibility — Human Rights; <a href="#">Code of Conduct</a> ; <a href="#">Supplier Code of Conduct</a>																							
103-3	Evaluation of the management approach	Developing Talented People — Labor Relations; Supporting Supplier Responsibility — Human Rights																							
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	We have not identified any GM operations or Tier I suppliers for risks of this nature.																							
<b>GRI 408: Child Labor</b>																									
103-1	Explanation of the material topic and its Boundary	Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing; <a href="#">Conflict Minerals Policy</a> ; <a href="#">Human Rights Policy</a>																							
103-2	The management approach and its components	Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing; <a href="#">Conflict Minerals Policy</a> ; <a href="#">Human Rights Policy</a>																							
103-3	Evaluation of the management approach	Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing																							
408-1	Operations and suppliers at significant risk for incidents of child labor	We have not identified any GM operations or Tier I suppliers for risks of this nature.																							

## GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response
<b>GRI 409: Forced or Compulsory Labor</b>		
103-1	Explanation of the material topic and its Boundary	Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing; <a href="#">Human Rights Policy</a>
103-2	The management approach and its components	Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing; <a href="#">Human Rights Policy</a>
103-3	Evaluation of the management approach	Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing
<b>GRI 410: Security Practices</b>		
103-1	Explanation of the material topic and its Boundary	ESG Management — Ethics; Supporting Supplier Responsibility — Human Rights
103-2	The management approach and its components	ESG Management — Ethics; Supporting Supplier Responsibility — Human Rights
103-3	Evaluation of the management approach	ESG Management — Ethics; Supporting Supplier Responsibility — Human Rights
410-1	Security personnel trained in human rights policies or procedures	100 percent of security personnel have completed Code of Conduct training, which includes human rights policies and procedures.
<b>GRI 412: Human Rights Assessment</b>		
103-1	Explanation of the material topic and its Boundary	ESG Management — Ethics; Supporting Supplier Responsibility — Human Rights; <a href="#">Human Rights Policy</a>
103-2	The management approach and its components	ESG Management — Ethics; Supporting Supplier Responsibility — Human Rights; <a href="#">Human Rights Policy</a>
103-3	Evaluation of the management approach	ESG Management — Ethics; Supporting Supplier Responsibility — Human Rights
412-2	Employee training on human rights policies or procedures	ESG Management — Ethics Training and Education; Supporting Supplier Responsibility — Supply Chain Governance
<b>GRI 413: Local Communities</b>		
103-1	Explanation of the material topic and its Boundary	Sustaining Communities
103-2	The management approach and its components	Sustaining Communities
103-3	Evaluation of the management approach	Sustaining Communities
413-1	Operations with local community engagement, impact assessments, and development programs	Sustaining Communities — Community Development
<b>GRI 414: Supplier Social Assessment</b>		
103-1	Explanation of the material topic and its Boundary	Supporting Supplier Responsibility
103-2	The management approach and its components	Supporting Supplier Responsibility
103-3	Evaluation of the management approach	Supporting Supplier Responsibility
414-1	New suppliers that were screened using social criteria	ESG Management — Chief Compliance Officer Q&A; Supporting Supplier Responsibility — Supply Chain Compliance 100 percent of Tier I suppliers have expectations for social criteria outlined in our purchase contract terms and conditions.
414-2	Negative social impacts in the supply chain and actions taken	We have not identified any Tier I suppliers for risks of this nature.

## GRI Content Index

## GENERAL DISCLOSURES

Disclosure Number	Description	Reference/Response
<b>GRI 415: Public Policy</b>		
103-1	Explanation of the material topic and its Boundary	ESG Management — Corporate Governance — Corporate Political Contributions and Lobbying Expenditures; <a href="#">Political Contributions and Expenditures Policy</a>
103-2	The management approach and its components	ESG Management — Corporate Governance — Corporate Political Contributions and Lobbying Expenditures; <a href="#">Political Contributions and Expenditures Policy</a>
103-3	Evaluation of the management approach	ESG Management — Corporate Governance — Corporate Political Contributions and Lobbying Expenditures
415-1	Political contributions	ESG Management — Corporate Governance — Corporate Political Contributions and Lobbying Expenditures; <a href="#">Political Contributions and Expenditures Policy</a> ; <a href="#">Voluntary Report of 2019 Political Contributions</a>
<b>GRI 416: Customer Health and Safety</b>		
103-1	Explanation of the material topic and its Boundary	Earning Customers for Life
103-2	The management approach and its components	Earning Customers for Life
103-3	Evaluation of the management approach	Earning Customers for Life
416-1	Assessment of the health and safety impacts of product and service categories	100 percent of our vehicles are assessed for health and safety impacts.
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Keeping People Safe — Vehicle Safety; 2019 Form 10-K pages 25, 77-79
<b>GRI 418: Customer Privacy</b>		
103-1	Explanation of the material topic and its Boundary	ESG Management; Transforming Mobility — Leading in Connectivity — Cybersecurity Risks, Privacy Protection; <a href="#">Global Privacy Policy</a> ; <a href="#">Product Cybersecurity Policy</a>
103-2	The management approach and its components	ESG Management; Transforming Mobility — Leading in Connectivity — Cybersecurity Risks, Privacy Protection; <a href="#">Global Privacy Policy</a> ; <a href="#">Product Cybersecurity Policy</a>
103-3	Evaluation of the management approach	ESG Management; Transforming Mobility — Leading in Connectivity — Cybersecurity Risks, Privacy Protection
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	In 2019, we did not have any substantiated customer privacy complaints from outside parties or regulatory bodies.
<b>GRI 419: Socioeconomic Compliance</b>		
103-1	Explanation of the material topic and its Boundary	ESG Management; Supporting Supplier Responsibility — Supply Chain Compliance
103-2	The management approach and its components	ESG Management; Supporting Supplier Responsibility — Supply Chain Compliance
103-3	Evaluation of the management approach	ESG Management; Supporting Supplier Responsibility — Supply Chain Compliance
419-1	Non-compliance with laws and regulations in the social and economic area	Keeping People Safe — Vehicle Safety; 2019 Form 10-K pages 77-81

## Sustainability Accounting Standards Board Response (SASB)

	Metric	Category	Unit of Measure	Code	Response/Comment																			
Activity Metrics	Number of vehicles manufactured	Quantitative	Number	TR-AU-000.A	7,332,373																			
	Number of vehicles sold	Quantitative	Number	TR-AU-000.B	7,718,000 (2019 10-K page 2)																			
Topic	Metric	Category	Unit of Measure	Code	Response/Comment																			
Product Safety	Percentage of vehicle models rated by NCAP programs with an overall 5-star safety rating, by region	Quantitative	Percentage (%) of rated vehicles	TR-AU-250a.1	US — 51% China — 83% Australasia — 100% South Korea — 67% Asean Region — 50%																			
	Number of safety-related defect complaints, percentage investigated	Quantitative	Number, Percentage (%)	TR-AU-250a.2	There were 4,755 submissions to our internal Speak Up For Safety program in 2019. All submissions are investigated.																			
	Number of vehicles recalled	Quantitative	Number	TR-AU-250a.3	8.58 million																			
Labor Practices	Percentage of active workforce covered under collective-bargaining agreements	Quantitative	Percentage (%)	TR-AU-310a.1	64% global																			
	Number of (1) work stoppages and (2) total days idle	Quantitative	Number, Days	TR-AU-310a.2	Our collective bargaining agreement with the United Auto Workers (UAW) expired on September 14, 2019. The UAW went on strike September 16, 2019, causing subsequent stoppages to most vehicle production and parts distribution across our North America facilities. The stoppage spanned 29 working days resulting in a cumulative loss of 1,334,000 work days. For more information on the cause of the stoppage, impact on production and corrective actions taken, see 2019 10-K, page 23.																			
	Sales-weighted average passenger fleet fuel economy, by region	Quantitative	Mpg, L/km, gCO2/km, km/L Methodology: Average F/E calculated by model year as required for regulatory purposes.	TR-AU-410a.1	<table border="1"> <thead> <tr> <th></th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr> </thead> <tbody> <tr> <td>USA</td><td>195 gCO2/km</td><td>191 gCO2/km</td><td>189 gCO2/km</td><td>193 gCO2/km</td></tr> <tr> <td>China</td><td>6.78 L/km</td><td>6.42 L/km</td><td>6.46 L/km</td><td>6.13 L/km</td></tr> <tr> <td>Brazil</td><td>123 gCO2/km</td><td>124 gCO2/km</td><td>122 gCO2/km</td><td>121 gCO2/km</td></tr> </tbody> </table>		2016	2017	2018	2019	USA	195 gCO2/km	191 gCO2/km	189 gCO2/km	193 gCO2/km	China	6.78 L/km	6.42 L/km	6.46 L/km	6.13 L/km	Brazil	123 gCO2/km	124 gCO2/km	122 gCO2/km
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Fuel Economy & Use-phase Emissions	Number of (1) zero emission vehicles (ZEV) sold, (2) hybrid vehicles sold, and (3) plug-in hybrid vehicles sold	Quantitative	Vehicle units sold	TR-AU-410a.2	<table border="1"> <thead> <tr> <th></th><th>2017</th><th>2018</th><th>2019</th></tr> </thead> <tbody> <tr> <td>ZEV</td><td>29,348</td><td>61,473</td><td>111,950</td></tr> <tr> <td>Hybrid</td><td>34,596</td><td>24,697</td><td>22,575</td></tr> <tr> <td>Plug-In Hybrid</td><td>34,276</td><td>29,209</td><td>6,868</td></tr> </tbody> </table>		2017	2018	2019	ZEV	29,348	61,473	111,950	Hybrid	34,596	24,697	22,575	Plug-In Hybrid	34,276	29,209	6,868			
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Discussion of strategy for managing fleet fuel economy and emissions risks and opportunities	Discussion and Analysis		TR-AU-410a.3	Reducing Carbon Impact — Climate Change Management, Vehicle Emissions, Regulatory Engagement																				
				CDP Climate Change 2019																				

Topic	Metric	Category	Unit of Measure	Code	Response/Comment																																												
Materials Sourcing	Description of the management of risks associated with the use of critical materials				<p>As we develop electric vehicles, we are mindful of the raw materials necessary to support their deployment on a commercial scale. As with all raw material inputs for our vehicles, some of these materials involve inherently higher risks, such as cost, supply availability, reputational and human rights risks. The identification of these risks is part our product development process, and we work to reduce these risks through a variety of methods, including re-engineering of components, supplier diversification, and reuse and recycling efforts.</p> <p>Designing for the Environment — Sustainable Materials</p> <p>Supporting Supplier Responsibility — Supply Chain Risks, Raw Materials Sourcing</p>																																												
Material Efficiently & Recycling	Total amount of waste from manufacturing, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	TR-AU-440b.1	<p>Includes hazardous and nonhazardous waste from manufacturing operations and some nonmanufacturing and JV facilities, excluding event waste from construction, demolition and remediation. Event waste is recycled to the greatest extent possible and tracked separately. Waste figures may also include vendor tooling used to produce proprietary GM parts.</p> <table border="1"> <thead> <tr> <th>Disposal Method (in metric tons to the nearest whole number)</th><th>Total</th><th>Hazardous</th><th>Nonhazardous</th></tr> </thead> <tbody> <tr> <td>Reuse</td><td>67,925</td><td>1,540</td><td>66,385</td></tr> <tr> <td>Recycling</td><td>1,355,174</td><td>11,922</td><td>1,343,252</td></tr> <tr> <td>Composting</td><td>5,779</td><td>28</td><td>5,751</td></tr> <tr> <td>Recovery including energy recovery</td><td>71,222</td><td>22,879</td><td>48,343</td></tr> <tr> <td>Incinerating (mass burn)</td><td>16,802</td><td>13,345</td><td>3,457</td></tr> <tr> <td>Deep well injection</td><td>0</td><td>0</td><td>0</td></tr> <tr> <td>Landfill</td><td>230,907</td><td>2,754</td><td>228,153</td></tr> <tr> <td>On-site storage</td><td>0</td><td>0</td><td>0</td></tr> <tr> <td>Other (includes microwaving, enclaves, plasma processing and other treatments)</td><td>22,578</td><td>4,669</td><td>17,909</td></tr> <tr> <td><b>Total</b></td><td><b>1,770,387</b></td><td><b>57,137</b></td><td><b>1,713,250</b></td></tr> </tbody> </table>	Disposal Method (in metric tons to the nearest whole number)	Total	Hazardous	Nonhazardous	Reuse	67,925	1,540	66,385	Recycling	1,355,174	11,922	1,343,252	Composting	5,779	28	5,751	Recovery including energy recovery	71,222	22,879	48,343	Incinerating (mass burn)	16,802	13,345	3,457	Deep well injection	0	0	0	Landfill	230,907	2,754	228,153	On-site storage	0	0	0	Other (includes microwaving, enclaves, plasma processing and other treatments)	22,578	4,669	17,909	<b>Total</b>	<b>1,770,387</b>	<b>57,137</b>	<b>1,713,250</b>
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	Weight of end-of-life material recovered, percentage recycled	Quantitative	Metric tons (t), Percentage (%) Methodology: Percentage is weight of recovered and recycled EOL material divided by total EOL recovered material.	TR-AU-440b.2	<p>GM does not compile this information outside of the EU where the End of Life Vehicle (ELV) law requires OEMs to have programs to retrieve and recycle our vehicles. No other region of sale has this requirement. However, the automobile is considered the most reused and recycled product in the marketplace. In North America and other regions, there is a well-established automotive dismantling industry that manages this activity. Per the Automotive Recyclers Association, professional automotive recycling industry recycles over 4 million motor vehicles annually in the U.S. and Canada alone. The U.S. automotive recycling industry employs over 140,000 people in the United States at more than 9,000 locations around the country, generating \$32 billion in sales nationwide. Per The Balance Small Business Sustainable Businesses /Metal Recycling website*, each year, over 25 million tons of materials are recycled from old vehicles.</p>																																												
	Average recyclability of vehicles sold, by weight	Quantitative	Percentage (%) by sales-weighted weight (metric tons) Methodology: percentage is weight of components/materials in vehicle sold that are recyclable divided by total weight of all vehicles sold.	TR-AU440b.3	<p>We enable, by mass, more than 85 percent reuse or recycling of our current vehicles at the end of their life.</p> <p>*Auto or Car Recycling Facts and Figures, Facts about car or automobile recycling, by Rick Leblanc updated September 09, 2016</p>																																												

# Task Force on Climate-related Financial Disclosure Response



## GOVERNANCE

## **Disclose the organization's governance around climate-related risks and opportunities.**

Disclose the organization's governance around climate-related risks and opportunities.

a) Describe the board's oversight of climate-related risks and opportunities.

The General Motors Board of Directors is committed to overseeing the company's integration of environmental, social and governance (ESG) principles throughout the enterprise. GM is fortunate that several of its Board members have extensive business experience in managing ESG- and climate-related issues, such as transitioning from high- to low-carbon-emitting technologies or managing environmental impacts within the supply chain. The Board is committed to elevating GM's leadership profile and reputation among investors, policymakers and others on ESG issues and practices and believes GM has a unique opportunity to address these important issues.

The Board's activities in ESG oversight include an annual multiday session devoted to discussing, debating and validating management's overall strategy. In the past year, these strategic reviews and discussions have included labor and workforce issues, electric vehicle (EV) and autonomous vehicle (AV) execution, fuel economy regulation, capital allocation, workplace and vehicle safety, and various alternative future business scenarios.

## ***Governance and Corporate Responsibility Committee***

ESG oversight includes frequent ESG strategic discussions by the Board's Governance and Corporate Responsibility Committee (GCRC). The GCRC assists the Board in its oversight of the company's governance structures, programs and policies. This committee brings to the attention of the Board and management, as appropriate, current and emerging global political, social and policy issues that may affect the business operations, profitability or public image or reputation of the company. The GCRC also oversees specific functions of the company, as appropriate, including strategy, action plans, and risk management. Company functions reviewed by the GCRC include Legal, Global Public Policy and Sustainability, including climate change. The GCRC has recently reviewed the company's ESG strategy, with a broader focus on corporate purpose and culture and how those attributes align with the company's corporate strategy.

The GCRC receives regular reports from the Strategic Risk Management (SRM) team, led by an executive director who has dedicated resources, risk management responsibility and is supported by the Risk Advisory Council (RAC). The RAC is an executive-level body with delegates from each business unit and function tasked with championing risk management practices and integrating them into their functional or regional business units.

## ***Risk and Cybersecurity Committee***

The Risk and Cybersecurity Committee of the Board is responsible for overseeing the company's management of enterprise-level risks, including climate-related risks such as climate-related policies and regulations that can impact products, services and operations, along with the SRM program and processes. The Committee is supported by the Executive Director of SRM, who is fully dedicated to risk management at GM. All top risks, including climate-related risks, such as increased and more stringent greenhouse gas (GHG) emission regulations, have approved mitigation plans and are reviewed regularly by the Senior Leadership Team (SLT) and the Board.



## GOVERNANCE (continued)

### ***Compensation Committee***

The Compensation Committee considers ESG performance when making compensation determinations for certain members of management. The Compensation Committee factors ESG performance related to strategic goals, which account for 25 percent of the short-term incentive plan for each Named Executive Officer. Linking total compensation to the achievement of these individual measures increases focus on efficiency and performance across the business for our sustainability initiatives. Please see GM's 2020 Proxy Statement (pages 52-57) for further discussion of individual performance results that had a positive impact on ESG measures.

#### **b) Describe management's role in assessing and managing climate-related risks and opportunities.**

### ***Sustainability Office***

Management of climate-related risks and opportunities ultimately resides with the Chief Executive Officer, who leads our SLT. This group includes the Executive Vice President of Global Manufacturing through which our Chief Sustainability Officer (CSO) reports. In 2019, we moved toward achieving a more holistic alignment of our vehicle strategy and our sustainability strategy by creating a Sustainability Office and naming our first CSO. This Office works cross functionally:

- to ensure responsible consumption of materials and production of vehicles;
- to lead the strategic design and implementation of our electric vehicle (EV) infrastructure; and
- to engage both internal and external stakeholders to realize a zero emissions future.

Our Sustainability Office is using a cross-functional “team of teams” approach to ensure that areas across the enterprise have accountability for their respective functions in accelerating the company’s zero emissions future. Within each functional area, a single leadership point represents sustainability objectives and priorities, as well as owning sustainability goals and metrics. This also ensures that sustainable attributes are incorporated into every vehicle across GM’s product portfolio, helping to bridge between an evolving EV portfolio and an internal combustion engine (ICE) portfolio. Additionally the Sustainability Office solicits feedback from internal and external advisory groups related to climate change issues.

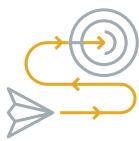
### ***Manufacturing Leadership Teams***

While the majority of GM’s carbon footprint results from the use of our vehicles, a category of Scope 3 emissions, the scale of our manufacturing operations also presents significant opportunities for emissions reduction.

On a monthly basis, GM’s progress toward public energy, emissions and water goals, all of which are climate-related, are reviewed by the Manufacturing Leadership Team (MLT). If targets are not meeting our defined pathway, countermeasures are developed at the plant level and reviewed by the MLT.

### ***Local Management***

Asset-level risks have mitigation plans that are the responsibility of local management. Exposure to and experience with catastrophic risk or losses from climate change or other natural events are continuously analyzed and reviewed for ongoing operations and when evaluating new sites and selecting suppliers.



## STRATEGY

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.

**Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.**

**a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.**

**b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.**

General Motors takes the challenge of climate change seriously and recognizes the role of the transportation sector in contributing to GHG emissions. This is a driving force behind our vision of a future with zero crashes, zero emissions and zero congestion. We have consistently and publicly advocated for climate action and awareness, as well as policies putting a value on carbon. Our global commitment to improving fuel economy, reducing emissions and advancing an all-electric, zero-emissions future is unwavering, regardless of any modifications to existing emissions standards currently under review in the United States.

Below we have identified climate-related risks and opportunities with potential impact to our business over short (1–3 years), medium (3–5 years) and long-term (5+ years) time horizons and our approach to each. Per TCFD guidelines, risks are categorized as transition risks or physical risks. Transition risks result from a global transition to a low-carbon and climate-resilient economy, and physical risks result from extreme weather events and increasing average global mean temperatures.

### TRANSITION RISKS

#### *Risk Type*

Policy and legal: Mandates on and regulation of existing products and services

#### *Description*

The California Air Resource Board's latest requirements include increasing ZEVs offered for sale in California and ZEV volumes for 2018 model year and later. Quebec adopted ZEV requirements starting with 2018 model year; other jurisdictions may follow. The Clean Air Act permits states with air quality compliance issues to adopt California emission standards in lieu of federal requirements; 13 states use these standards, 10 of which have adopted ZEV requirements.

#### *Impact*

- Time horizon: Medium-term
- Likelihood: Likely
- Magnitude of impact: Medium-high
- Potential financial impact figure: \$23 million
- Cost of management: \$7.8 million

#### *Approach*

We've announced our intent to allocate more than \$20 billion in capital and engineering resources to EV and autonomous vehicle (AV) programs between 2020 and 2025. By mid-decade, we intend to sell a million EVs per year in our two largest markets – North America and China. Our flexibility and engineering focus will drive the scale required to accelerate our path to zero emissions in a profitable and efficient way.



## STRATEGY (continued)

### ***Risk Type***

Market: Changing customer behavior

### ***Description***

Changing consumer behavior due to fuel pricing volatility, tax incentives and preference for more fuel-efficient vehicles could weaken the demand for our higher-margin full-size pickup trucks and sport utility vehicles. This could reduce our market share in affected markets, decrease profitability and have a material adverse effect on our business if we are unable to offer alternatives that are of interest to our customers.

### ***Impact***

- Time horizon: Medium-term
- Likelihood: More likely than not
- Magnitude of impact: Medium
- Potential financial impact figure: \$1.37 billion
- Cost of management: \$7.8 million

### ***Approach***

Continuous innovation and advanced technology development are key to keeping up with changing consumer behavior. One way GM achieves this is through our global network of R&D labs around the world, as well as through active collaboration with academia, suppliers and startups to develop new technologies which improve fuel economy, reduce emissions, enhance vehicle safety, reduce vehicle mass, support the expansion of our EV offerings and accelerate the advent of the autonomous vehicle.

## PHYSICAL RISKS

### ***Risk Type***

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

### ***Description***

Increases in the frequency of drought conditions can further depress water availability for production in water-stressed areas. GM has production facilities in Mexico, an area hard hit by drought in recent years, and there is a risk that increases in the frequency of such events could disrupt production due to lack of water availability. Mexico accounts for approximately 12 percent of GM's global production.

### ***Impact***

- Time horizon: Short-term
- Likelihood: About as likely as not
- Magnitude of impact: Medium-to-high
- Potential financial impact figure: \$842 million
- Cost of management: \$20.2 million

### ***Approach***

GM has integrated water management into our annual business planning process and is on a pathway to meet our 2020 target to reduce the water intensity of our operations by 15 percent compared to a 2010 baseline. Water usage is managed on a local basis, with each facility working toward its own targets for year-over-year improvement.

Innovative approaches have allowed facilities to continue production without disruptions, even in water-stressed areas. At our San Luis Potosí Assembly plant in Mexico, GM uses



## STRATEGY (continued)

a Zero Liquid Discharge system to minimize the reliance on well water withdrawal. The system purifies and transforms wastewater into reusable water for the facility's paint and machining processes, as well as irrigation.

### CLIMATE-RELATED OPPORTUNITIES

#### *Opportunity Type*

Products and services: Development and/or expansion of low-emission goods and services

#### *Description*

Today's transportation revolution is transforming how people move, an effect similar to the debut of the automobile more than a century ago. The technologies leading this transformation of personal mobility will be autonomous, electric, connected and shared. We are focused on initiatives that capitalize on these new technologies and business models to create products, offer services and advocate for policy that looks at transportation as a system and mobility as a service.

#### *Impact*

- Time horizon: Short-term
- Likelihood: Likely
- Magnitude of impact: Medium-to-high

#### *Strategy*

Our global commitment to realize an all-electric, zero-emissions future — from battery chemistry and architecture to safety validation and infrastructure — requires unprecedented investment in people and resources. This is why we've announced our intent to allocate more than \$20 billion in capital and engineering resources to EV and autonomous vehicle (AV) programs between 2020 and 2025. This equates to more than \$3 billion annually. By mid-decade, our intent is to sell a million EVs per year in our two largest markets: North America and China, where we are working with our joint venture partners. GM's flexibility and engineering focus will drive the scale required to accelerate our path to zero emissions in a profitable and efficient way. In addition, we are leveraging existing assets, such as production tools and body and paint shops, so that economies of scale can be realized with less capital and further position the first generation of these products for profitability.

#### *Opportunity Type*

Resource efficiency: Increased efficiency of facilities

#### *Description*

While the majority of GM's carbon footprint results from the use of our vehicles, the scale of our manufacturing operations also presents significant opportunities for energy efficiency improvement.

#### *Impact*

- Time horizon: Current
- Likelihood: Virtually certain
- Magnitude of impact: Medium-low



## STRATEGY (continued)

### ***Renewable energy***

Just as we are accelerating our all-EV future, we also are accelerating our renewable energy commitments. In 2016, GM committed to sourcing 100 percent of our global electricity demand from renewable sources by 2050. In early 2020, in response to the need to accelerate efforts to address climate change, we pulled forward our 100 percent global renewable energy commitment to 2040 with interim goals of achieving 60 percent globally by 2025 and 100 percent of U.S. sites by 2030. At the end of 2019, we were sourcing 24 percent of global electricity needs.

### ***Energy conservation***

By reducing energy use overall, there will be fewer electricity needs to be covered by renewable sources. GM uses an energy management system (EMS) and performance contracts to achieve energy-reduction goals. In 2019, more than 90 percent of our U.S. manufacturing footprint implemented the U.S. Department of Energy's (DOE) 50001 Ready program. This program is an application tool through which 25 tasks are measured to demonstrate an effective energy management system. We plan to expand this program to all of our manufacturing facilities globally in order to continuously monitor and improve our energy management systems.

GM also uses a variety of Energy Star initiatives as a framework for charting our progress in building energy efficiency. Energy Star's Building Portfolio Manager (BPM) allows us to benchmark our progress and make continuous improvements. BPM integrates with our utility bill management system, sending an automated monthly analysis of building scores to evaluate building performance.

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### **c) Describe the potential impact of different scenarios, including a 2°C scenario, on the organization's businesses, strategy and financial planning.**

Climate change has been incorporated into our enterprise risk management process. This designation ensures that these issues are at the forefront of daily decision-making and that we manage them at the highest levels of the organization. As an example, a cross-functional climate change scenario workshop in 2018 helped us assess the risks, challenges and opportunities associated with various 2-degree warming scenarios.

The workshop was based on a key assumption that the world is on a path to limit emissions by 2030 so that temperatures increase no more than 2 degrees Celsius. Sponsored by GM's corporate secretary and the head of GM's product portfolio planning, the exercise — led by Strategic Risk Management and Sustainability organizations — brought together a broad, cross-functional team, from public policy to global propulsion systems to business intelligence. Goals included developing and understanding a range of different world scenarios; identifying risks, opportunities and success factors for GM; and making recommendations for GM to analyze, prepare, adapt and act.

The group considered four different scenarios in a maximum 2-degree warmer world and walked through a three-step process. The first step was to explore uncertainties and then to define success in this future world. Helping to shape each scenario were questions such as, "What types of regulation will govern the sector?" "What will cities look like?" "What are the mobility limitations of dense urban communities?" and "What sort of transportation modes and services, such as ride share, will be most accepted by consumers?" The final step involved an analysis to determine what GM should be doing now to influence our future.

All four scenarios shared common themes. Within the vehicle market, for example, it was assumed that new passenger vehicles would be required to make faster and greater adjustments than other users of energy and that would be significant changes in the vehicle ownership paradigm, as well as a decline in the proportion of single-person vehicle miles. Outside the transportation sector, we envisioned significant changes and investments in infrastructure, power grids and power sources; penalties and costs associated with manufacturing and supply chain emissions; and increased accountability in areas such as the mine-to-scrap life cycle of metal ore.



## STRATEGY (continued)

The exercise helped to clarify risks but also highlighted opportunities, many of which are directly influencing our strategy today. Some examples include:

Risks/Opportunity	Recent Strategy Developments
Adoption of new business models	Continued investment in Cruise, the self-driving company in which we are majority owners; and the development with Honda of Cruise Origin, which exemplifies our vision for the future of mobility: shared, autonomous, electric and connected.
Response to new energy vehicle regulations in China	Through our SAIC-GM joint venture, we will invest \$4.3 billion to introduce at least nine hybrid or electric models in China over the next five years.
Focusing on new technologies by shifting capital resources and talent toward vehicle electrification programs	We are allocating more than \$20 billion in capital and engineering resources to EV and AV programs between 2020 and 2025.
Prioritizing renewable power sources	We have accelerated our goal to source electricity from 100 percent global renewable energy sources from 2050 to 2040 with interim goals of achieving 60 percent globally by 2025 and 100 percent of U.S. sites by 2030.

A more recent scenario planning workshop brought together cross-functional leadership to build a realistic picture of what the EV market in the U.S. could look like in 2029 based on key uncertainty drivers. The output of the workshop resulted in four potential real-world scenarios, in which each world has a unique view on customers, technology, competitors and the economic and political environment. Participants agreed that two key uncertainties could have the biggest impact on GM's success: battery technology and competitor actions. The exercise demonstrates how GM monitors the real world to understand how assumptions evolve and corresponding changes to strategy are made.



## MANAGING CLIMATE CHANGE RISK

Disclose how the organization identifies, assesses and manages climate-related risks.

**a) Describe the organization's processes for identifying and assessing climate-related risks.**

**b) Describe the organization's processes for managing climate-related risks.**

**c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.**

As part of our comprehensive climate change strategy, we identify and monitor climate-related risks on a regular basis and plan accordingly. The need for this constant process reflects the volatility of risk factors and dynamics that can quickly change scenarios. By institutionalizing climate change risks as part of our enterprise risk management function, GM is better positioned to anticipate, detect and, ultimately, plan around these changes.

***The Role of the Board and Senior Management***

The Board has the overall responsibility for risk oversight, with a focus on the most significant risks facing the company, including climate change. While GM does not follow the precautionary approach, it does have a comprehensive risk management plan in place. Our Board implements its risk oversight function both as a whole and through delegation to Board Committees. Each of the Board Committees is responsible for oversight of risk management practices for categories of risks relevant to its functions, with the GCRC being responsible for risks related to the sustainability of our operations and products. The process and terminology in place for assessing relative significance of all identified risks, including climate-related risks such as increased and more stringent GHG emission regulations, is as follows:

- Risks and opportunities are categorized based on frequency, velocity and impact on financials, operations, reputation, etc.
  - All top risks have approved mitigation plans and are reviewed regularly by the SLT and the Board.
  - All other risks have either approved mitigation plans and are reviewed at least once a year by the SLT, or after being fully analyzed are put on a “watch list” and are monitored by the risk officer and their respective SLT member.

For additional detail on the critical role our Board's Committees and senior management play in the execution of risk management, please see the Governance section of the 2019 Sustainability Report.

***Environmental Governance***

GM reduces operational risks through sound environmental management. We measure and manage natural resources use at all manufacturing locations, engineering centers, parts distribution centers and proving ground sites around the world. These facilities vary in function, geography, size and surrounding natural environments, which gives rise to varying concerns such as resources scarcity, dozens of different regulatory requirements and different levels of environmental quality. And, although GM-owned and -operated facilities have their own operating plans depending on their location, all function under a common Environmental Policy which provides an effective foundation for environmental stewardship. In addition to GM's Environmental Policy, which provides guidelines to help minimize the impact of our activities, products and services on the environment, GM manages climate-related risks through:

- Setting Environmental Commitments which encourage environmental consciousness in both daily conduct and in the planning of future products and programs.
- Implementing an Environmental Management System at all manufacturing facilities that GM owns and operates, and a majority of our nonmanufacturing sites around the world.
- Complying with applicable environmental laws and regulations globally.
- Monitoring GM's performance according to GM's own Environmental Performance Criteria, which are universal corporate performance requirements designed to protect human health and the environment in accordance with the GM Environmental Policy.



## MANAGING CLIMATE CHANGE RISK (continued)

- Providing strategic training and guidance to our environmental professionals to help them keep pace with evolving environmental issues and best practices that could have application worldwide.
- Publicly disclosing environmental performance through reporting frameworks such as GRI, SASB and CDP, in addition to TCFD. The reporting process not only helps us manage and measure our progress, but also helps us to engage with both internal and external stakeholders around the world.

### ***Supply Chain Risks***

GM is working diligently to further integrate environmental sustainability into all aspects of our supply chain functions. A cross-enterprise project team was formed to execute our new Global Purchasing and Supply Chain (GPSC) Environmental Sustainability vision: We envision a collaborative supply chain minimizing environmental impact and enhancing long-term sustainability for our planet and the communities we serve through innovation and performance.

Goals of the project team include:

- Supply chain carbon footprint reduction: concentrating on Scope 3 emissions to include upstream and downstream logistics and supplier emissions.
- Emissions disclosure: increasing visibility and supplier engagement in carbon footprint reduction through tracking of CDP engagement by select Tier I suppliers.
- Sustainable logistics: increasing shipping container packing density, route efficiency monitoring, supplier emissions reduction and alternative fuels.



## METRICS AND TARGETS

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

**a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.**

**b) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.**

Sustainability Office leaders are charged with innovating and advocating for the acceleration of our zero crashes, zero emissions and zero congestion vision. This work is initially centered around five primary environmental areas of focus: sustainable materials, zero waste, carbon (Scope 1), energy (Scope 2) and water. To manage and measure progress over the next decade, the team is working to develop a comprehensive set of enterprise goals that is expected to be formalized over the next year. Already announced are goals that call for:

- Ensuring at least 50 percent sustainable material content in GM vehicles by 2030.
- Achieving a 31 percent reduction in absolute Scope 1 and 2 CO<sub>2</sub> emissions based on science and aligned with the Paris Climate Agreement.
- Ensure 100 percent of targeted GM suppliers are reporting data to CDP Supply Chain by 2022.

In addition, the team has accelerated GM's previously announced goal to source 100 percent renewable electricity globally by 2050. The new goal calls for achieving 100 percent in the U.S. by 2030 and globally by 2040.

A key consideration in developing these enterprise-level goals has been to ensure cross-functional impact to product impact. This approach is more holistic than in the past when we have viewed operations and products separately. Now, all impacts of the business are managed and measured to support our zero emissions future.

### 2020 Operational Commitments

These goals, and those to be announced, build on the progress that has been made over the past decade through our 2020 Manufacturing Commitments. Introduced in 2010, these commitments focus on GM's extensive manufacturing footprint around the world and have served to significantly reduce the impact of our operations. Progress includes meeting our initial goal to increase renewable energy to 125 MW four years early and continuing to grow renewable energy capacity to greater than 424 MW as of the end of 2019. In the past nine years, we also have reduced energy intensity by 8 percent; water intensity by 14 percent and waste intensity by 28 percent — all against the 2010 baseline.

**c) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.**

### 2019 Emissions Performance

2019 Emissions	Metric Tons CO <sub>2</sub> e <sup>1</sup>
Scope 1	1,589,700 <sup>2</sup>
Scope 2	3,721,875 <sup>3</sup>
Scope 3	249,384,317 <sup>4</sup>

For a comprehensive summary of the environmental metrics related to GM's products and operations, please see our [ESG Data Center](#). For emissions methodology, please see our [CDP Climate Change response](#).

<sup>1</sup> Reporting is based on GHG Protocol, and the source of emission factors is regulatory or IPCC.

<sup>2</sup> Calculation includes CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O.

<sup>3</sup> Gross market-based indirect emissions.

<sup>4</sup> Calculation includes CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>.

# United Nations Sustainable Development Goals (UNSDG)

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries — developed and developing — in a global partnership. Below you can find how GM has mapped their most material topics and strategic priorities to targets within these 17 goals.

GOAL	GM MATERIAL TOPIC	MOST RELEVANT TARGETS	EXAMPLES OF IMPACT
3 GOOD HEALTH AND WELL-BEING	<ul style="list-style-type: none"> <li>Vehicle Safety</li> <li>Community Engagement</li> </ul>	<p><b>3.6</b> By 2020, halve the number of global deaths and injuries from road traffic accidents</p> <p><b>3.9</b> By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p>	<ul style="list-style-type: none"> <li>Keeping People Safe — Vehicle Safety, Advanced Safety Technology Development, Driver Behavior</li> <li>Sustaining Communities — Vehicle and Road Safety</li> </ul>
4 QUALITY EDUCATION	<ul style="list-style-type: none"> <li>STEM Education</li> <li>Community Engagement</li> </ul>	<p><b>4.3</b> By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university</p> <p><b>4.4</b> By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship</p>	<ul style="list-style-type: none"> <li>Sustaining Communities — Social Impact Strategy, STEM Education, Community Development</li> </ul>
5 GENDER EQUALITY	<ul style="list-style-type: none"> <li>Diversity &amp; Inclusion</li> </ul>	<p><b>5.1</b> End all forms of discrimination against all women and girls everywhere</p> <p><b>5.5</b> Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life</p> <p><b>5.B</b> Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women</p>	<ul style="list-style-type: none"> <li>Fostering Diversity, Equity &amp; Inclusion</li> </ul>
7 AFFORDABLE AND CLEAN ENERGY	<ul style="list-style-type: none"> <li>Energy Reduction/ Efficiency</li> <li>Renewable Energy</li> </ul>	<p><b>7.2</b> By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p><b>7.3</b> By 2030, double the global rate of improvement in energy efficiency</p> <p><b>7.a</b> By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology</p>	<ul style="list-style-type: none"> <li>Reducing Carbon Impact — Operational Emissions</li> </ul>
8 DECENT WORK AND ECONOMIC GROWTH	<ul style="list-style-type: none"> <li>Human Capital Management</li> <li>Diversity &amp; Inclusion</li> <li>Employee Development</li> <li>Community Engagement</li> </ul>	<p><b>8.2</b> Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labor-intensive sectors</p> <p><b>8.4</b> Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead</p> <p><b>8.5</b> By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p>	<ul style="list-style-type: none"> <li>Developing Talented People</li> <li>Fostering Diversity, Equity &amp; Inclusion</li> <li>Sustaining Communities — Community Development</li> </ul>

GOAL	GM MATERIAL TOPIC	MOST RELEVANT TARGETS	EXAMPLES OF IMPACT
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	<ul style="list-style-type: none"> <li>Electric Vehicle/ Zero Emissions Vehicle Market Development</li> <li>Technological Innovation</li> <li>Design for the Environment</li> </ul>	<p><b>9.4</b> By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p> <p><b>9.5</b> Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending</p>	<ul style="list-style-type: none"> <li>Reducing Carbon Impact</li> <li>Designing for the Environment</li> </ul>
11 SUSTAINABLE CITIES AND COMMUNITIES	<ul style="list-style-type: none"> <li>Electric Vehicle/ Zero Emissions Vehicle Market Development</li> <li>Technological Innovation</li> <li>Congestion Solutions</li> <li>Community Engagement</li> </ul>	<p><b>11.2</b> By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons</p> <p><b>11.3</b> By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries</p> <p><b>11.6</b> By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</p>	<ul style="list-style-type: none"> <li>Transforming Mobility</li> <li>Reducing Carbon Impact</li> <li>Designing for the Environment — Waste Minimization</li> <li>Sustaining Communities — Community Development</li> </ul>
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	<ul style="list-style-type: none"> <li>Design for the Environment</li> <li>Waste Reduction/ Management</li> </ul>	<p><b>12.2</b> By 2030, achieve the sustainable management and efficient use of natural resources</p> <p><b>12.4</b> By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment</p> <p><b>12.5</b> By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p>	<ul style="list-style-type: none"> <li>Designing for the Environment</li> </ul>
13 CLIMATE ACTION	<ul style="list-style-type: none"> <li>Climate Change Management</li> </ul>	<p><b>13.2</b> Integrate climate change measures into national policies, strategies and planning</p>	<ul style="list-style-type: none"> <li>ESG Management — Our Strategy, ESG Governance and Oversight, Environmental Governance</li> <li>Reducing Carbon Impact</li> </ul>

GOAL	GM MATERIAL TOPIC	MOST RELEVANT TARGETS	EXAMPLES OF IMPACT
 <b>15</b> LIFE ON LAND	<ul style="list-style-type: none"> <li>• Design for the Environment</li> <li>• Responsible Raw Material Sourcing</li> <li>• Supply Chain Environmental Impacts</li> </ul>	<p><b>15.1</b> By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements</p> <p><b>15.5</b> Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species</p>	<ul style="list-style-type: none"> <li>• Designing for the Environment — Working on Behalf of Our Environment</li> <li>• Supporting Supplier Responsibility — Integrating Environmental Sustainability in Our Supply Chain Function, Raw Materials Sourcing</li> </ul>
 <b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS	<ul style="list-style-type: none"> <li>• Ethics</li> </ul>	<p><b>16.5</b> Substantially reduce corruption and bribery in all their forms</p> <p><b>16.6</b> Develop effective, accountable and transparent institutions at all levels</p>	<ul style="list-style-type: none"> <li>• ESG Management — Ethics</li> <li>• Supporting Supplier Responsibility — Supply Chain Governance, Supply Chain Compliance</li> </ul>
 <b>17</b> PARTNERSHIPS FOR THE GOALS	<ul style="list-style-type: none"> <li>• Electric Vehicle/Zero Emissions Vehicle Market Development</li> <li>• Technological Innovation</li> </ul>	<p><b>17.6</b> Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms in particular at the United Nations level, and through a global technology facilitation mechanism.</p> <p><b>17.7</b> Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.</p>	<ul style="list-style-type: none"> <li>• Reducing Carbon Impact — Regulatory Engagement, Operational Emissions</li> <li>• Transforming Mobility — Powered by Electricity</li> </ul>

zero crashes, zero congestion, zero crashes, **zero emissions**, zero crashes, zero congestion, **zero emissions**, zero crashes, zero congestion, zero crashes, zero emissions, zero crashes, zero congestion, zero crashes, **zero emissions**, zero crashes, zero congestion, zero emissions, zero crashes, zero emissions, zero crashes, zero emissions

# United Nations Global Compact (UNGC)

General Motors is a member of the United Nations Global Compact, which endorses a framework of principles in the areas of human rights, labor, the environment and anti-corruption. We are committed to these principles and are actively implementing them as detailed in this report.

UNGC PRINCIPLES	REFERENCE
<b>Human Rights</b>	
1. Support and respect protection of internationally proclaimed human rights	<ul style="list-style-type: none"><li>• ESG Management — Ethics</li><li>• Supporting Supplier Responsibility</li><li>• Developing Talented People — Labor Relations — UN Global Compact</li><li>• <a href="#">Code of Conduct</a></li><li>• <a href="#">Supplier Code of Conduct</a></li><li>• <a href="#">Conflict Minerals Policy</a></li><li>• <a href="#">Human Rights Policy</a></li></ul>
2. Make sure business is not complicit in human rights abuses	<ul style="list-style-type: none"><li>• ESG Management — Ethics</li><li>• Supporting Supplier Responsibility</li><li>• Developing Talented People — Labor Relations — UN Global Compact</li><li>• <a href="#">Code of Conduct</a></li><li>• <a href="#">Supplier Code of Conduct</a></li><li>• <a href="#">Conflict Minerals Policy</a></li><li>• <a href="#">Human Rights Policy</a></li></ul>
<b>Labor Standards</b>	
3. Uphold freedom of association and the effective recognition of the right to collective bargaining	<ul style="list-style-type: none"><li>• Developing Talented People — Labor Relations</li><li>• Supporting Supplier Responsibility — Human Rights</li><li>• <a href="#">Code of Conduct</a></li><li>• <a href="#">Supplier Code of Conduct</a></li></ul>
4. Support elimination of all forms of forced and compulsory labor	<ul style="list-style-type: none"><li>• Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing</li><li>• <a href="#">Supplier Code of Conduct</a></li><li>• <a href="#">Conflict Minerals Policy</a></li><li>• <a href="#">Human Rights Policy</a></li></ul>
5. Support effective abolition of child labor	<ul style="list-style-type: none"><li>• Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights, Raw Materials Sourcing</li><li>• <a href="#">Code of Conduct</a></li><li>• <a href="#">Supplier Code of Conduct</a></li><li>• <a href="#">Conflict Minerals Policy</a></li><li>• <a href="#">Human Rights Policy</a></li></ul>
6. Eliminate discrimination in employment and occupation	<ul style="list-style-type: none"><li>• ESG Management — Ethics Training and Education</li><li>• Supporting Supplier Responsibility — Human Rights; Fostering Diversity, Equity &amp; Inclusion</li><li>• <a href="#">Code of Conduct</a></li><li>• <a href="#">Supplier Code of Conduct</a></li><li>• <a href="#">Human Rights Policy</a></li></ul>

UNGCR PRINCIPLES	REFERENCE
Human Rights	
Environment	
7. Support a precautionary approach to environmental challenges	<ul style="list-style-type: none"><li>• ESG Management — Risk Management</li><li>• Reducing Carbon Impact</li><li>• Designing for the Environment</li><li>• <a href="#"><u>Global Environmental Policy</u></a></li></ul>
8. Undertake initiatives to promote greater environmental responsibility	<ul style="list-style-type: none"><li>• ESG Management — Risk Management</li><li>• Reducing Carbon Impact</li><li>• Transforming Mobility</li><li>• Designing for the Environment</li><li>• Supporting Supplier Responsibility — Integrating Environmental Sustainability in Our Supply Chain Function</li><li>• <a href="#"><u>Global Environmental Policy</u></a></li></ul>
9. Encourage the development and diffusion of environmentally friendly technologies	<ul style="list-style-type: none"><li>• Reducing Carbon Impact</li><li>• Transforming Mobility</li><li>• Designing for the Environment</li></ul>
Anti-Corruption	
10. Work against all forms of corruption, including extortion and bribery	<ul style="list-style-type: none"><li>• ESG Management — Ethics</li><li>• Supporting Supplier Responsibility — Supply Chain Compliance, Human Rights</li><li>• Developing Talented People — Labor Relations — UN Global Compact</li><li>• <a href="#"><u>Code of Conduct</u></a></li><li>• <a href="#"><u>Supplier Code of Conduct</u></a></li></ul>

# ESG DATA CENTER

## SAFETY

	2015	2016	2017	2018	2019
<b>Global Deployment of Advanced Safety Technologies</b> <i>Number of models with these technologies available or as standard equipment out of total models</i>					
Forward Collision Alert					
Forward Collision Alert	•	61	56	49	56
Adaptive Cruise Control	•	24	26	24	29
Safety Alert Seat	•	23	24	23	27
Front Pedestrian Braking	•	4	7	17	22
Forward or Low-Speed Forward Automatic Braking	•	26	29	32	37
Lane Departure Warning	•	58	41	16	27
Side Blind Zone Alert	•	40	40	44	49
Rear Cross-Traffic Alert	•	39	39	36	42
Lane Keep Assist with Lane Departure Warning	•	27	30	33	36
Surround Vision	•	6	11	22	20
<b>GM Safety and Noncompliance Recalls</b>					
Number of Recalls: North America	39	36	18	29	28
Vehicle Recall Volume: North America (in millions)	4.90	7.06	1.42	2.18	7.34
Number of Recalls: Global	106	90	46	50	44
Vehicle Recall Volume: Global (in millions)	7.48	9.42	2.05	4.23	8.58
Percentage of U.S. Recalls Involving Fewer than 10,000 Vehicles	56%	62%	52%	54%	59%
<b>Workplace Safety</b>					
Sentinel Events Proactive <i>Percent of Sentinel Events detected as Unsafe Acts/Conditions and that did not result in an incident</i>	57.0%	70.6%	71.2%	65.5%	70.0%
Global Calls to Action Closed on Time <i>Percent of Global Calls to Action (actions required globally in response to serious incidents) closed on time.</i>	98.6%	98.2%	98.8%	99.9%	98.8%
Fatalities <i>A work-related incident resulting in death</i>	1	4	3	0	0
Recordable Incident Rate <i>Number of incidents that resulted in injuries or illnesses that required medical treatment beyond simple first aid treatment per 1,000,000 work hours</i>	5.75	7.50	7.95	6.80	6.20
Lost Work Day Rate – Employees <i>Number of lost work day injuries and illnesses per 1,000,000 work hours</i>	2.48	3.50	4.00	3.05	2.85
Lost Work Day Rate – Contractors <i>Number of lost work day injuries and illnesses per 1,000,000 work hours</i>	0.56	0.56	0.32	0.25	0.30

## PRODUCTS

	2015	2016	2017	2018	2019
<b>Global Volume</b>					
Total Sales (millions of units)	9,958	10,008	9,600	8,400	7,718
<b>EV Portfolio</b>					
Global Models with Some Form of Electrification	•	11	13	12	14
CO2 Emissions Avoided (metric tons)	•	•	191,624	289,216	526,698
Gasoline Miles Displaced by GM BEVs	•	•	470 million	707 million	1.29 billion
Percent Sales Share of All-Electric Models	•	•	37%	53%	79%
Percent Sales Share of Plug-In Hybrids and Hybrids	•	•	63%	47%	21%
Global Electrification Portfolio	•	34,062	109,666	115,379	141,393
Vehicles on the Road in the U.S. with Some Form of Electrification	196,540	241,989	304,856	350,604	381,714
<b>Global Sales Volume of Alternative Drive Train Vehicles</b>					
Flexfuel Vehicles	•	•	•	•	1,378,710
EV Vehicles	•	•	•	•	111,950
Hybrid Vehicles	•	•	•	•	29,443
<b>Advanced Powertrain Technologies (Percent of Total U.S. Volume)</b>					
Stop-Start Technology	•	23%	42%	57%	70%
Downsized-Turbo Engines	•	24%	39%	38%	43%
Advanced Transmissions	•	20%	32%	47%	55%
<b>WORKFORCE</b>					
	2015	2016	2017	2018	2019
<b>Employees by Segment</b>					
GM North America	115,000	124,000	124,000	124,000	117,000
GM International	32,000	32,000	47,000	39,000	37,000
GM Financial	8,000	9,000	9,000	10,000	10,000
Total Worldwide	215,000	225,000	180,000	173,000	164,000
<b>Global Workforce by Type</b>					
Total Employees					
Male	82.0%	81.8%	79.3%	78.6%	78.2%
Female	18.0%	18.2%	20.7%	21.4%	21.8%
Temporary					
Male	78.0%	67.4%	67.5%	64.7%	62.4%
Female	22.0%	32.6%	32.5%	35.3%	37.6%
Managers					
Male	82.0%	81.4%	80.1%	79.6%	79.5%
Female	18.0%	18.6%	19.9%	20.4%	20.5%
Nonmanagers					
Male	83.0%	81.3%	78.9%	77.9%	77.5%
Female	17.0%	18.7%	21.1%	22.1%	22.5%

# WORKFORCE

(continued)

	2015	2016	2017	2018	2019
<strong>Employees by Employment Type</strong>					
Full-Time					
Male	83.0%	81.6%	79.1%	78.2%	77.7%
Female	17.0%	18.4%	20.9%	21.8%	22.3%
Total Full-Time	•	•	•	•	99.8%
Part-Time					
Male	•	18.0%	13.0%	14.1%	10.2%
Female	•	82.0%	87.0%	85.9%	89.8%
Total Part-Time	•	•	•	•	0.2%
<strong>Employees by Employment Contract</strong>					
Permanent					
North America	•	•	72.6%	75.3%	74.8%
International	•	•	16.4%	24.7%	13.5%
South America	•	•	11.0%	•	11.7%
Temporary					
North America	•	•	65.1%	71.4%	82.1%
South America	•	•	33.6%	•	17.5%
International	•	•	1.3%	28.6%	0.4%
<strong>Global Hires by Type</strong>					
Global Hires by Age					
Male					
Under 30	•	•	61.0%	61.3%	59.8%
30-49	•	•	33.3%	33.1%	35.0%
50 and over	•	•	5.1%	5.6%	5.2%
Female					
Under 30	•	•	57.7%	53.8%	53.6%
30-49	•	•	37.2%	40.8%	41.0%
50 and over	•	•	5.1%	5.5%	5.4%
<strong>Global Hires by Region</strong>					
Male					
North America	•	•	83.7%	82.6%	81.5%
South America	•	•	11.0%	•	14.2%
International	•	•	5.3%	17.4%	4.3%
Female					
North America	•	•	89.5%	89.7%	88.5%
South America	•	•	7.0%	•	8.2%
International	•	•	3.5%	10.3%	3.3%
<strong>Global Hires by Gender</strong>					
Men	•	•	66.8%	66.7%	63.1%
Women	•	•	33.2%	33.3%	36.9%

## WORKFORCE

(continued)

2015 2016 2017 2018 2019

## Global Attrition by Type

## Global Attrition by Gender

Male	•	•	74.5%	74.8%	71.3%
Female	•	•	25.5%	25.2%	28.7%

## Global Attrition by Age

## Male

Under 30	•	•	31.3%	39.2%	29.9%
30-49	•	•	45.9%	33.8%	37.9%
50 and over	•	•	22.8%	27.0%	32.2%

## Female

Under 30	•	•	28.3%	44.2%	36.6%
30-49	•	•	46.5%	18.0%	40.5%
50 and over	•	•	25.2%	37.8%	22.9%

## Global Attrition by Region

## Male

North America	•	•	60.2%	62.3%	77.0%
South America	•	•	23.5%	•	11.2%
International	•	•	16.3%	37.3%	11.8%

## Female

North America	•	•	86.0%	84.2%	89.4%
South America	•	•	7.3%	•	4.6%
International	•	•	6.7%	15.8%	6.0%

## Technology Positions

Male	•	•	82.0%	82.0%	81.8%
Female	•	•	8.0%	18.0%	18.2%

## Employee Hires vs. Turnover

Total Salary Hires	•	•	6,673	6,760	5,227
Total Turnover Rate	•	4.9%	4.7%	6.2%	10.7%
Volunteer Turnover Rate	•	4.2%	4.1%	4.8%	4.7%

## Global Workforce by Gender

## Female

North America	75.0%	76.1%	86.5%	87.7%	87.6%
South America	6.0%	5.6%	6.2%	•	5.7%
International	8.0%	6.9%	7.3%	12.3%	6.7%

## Male

North America	51.0%	52.6%	68.7%	71.7%	71.4%
South America	13.0%	11.7%	13.1%	•	13.5%
International	17.0%	15.7%	18.2%	28.3%	15.1%

## Executive Level Positions

Women in executive level job classifications	18.5%	18.6%	20.2%	19.9%	20.1%
Female	18.5%	18.6%	20.2%	19.9%	20.1%
Male	82.5%	82.4%	79.8%	80.1%	79.9%

## WORKFORCE

(continued)

2015

2016

2017

2018

2019

## Top Management Positions

Women in top management positions within two levels of the CEO

Female	28.6%	31.6%	32.0%	34.0%	32.2%
Male	71.4%	68.4%	68.0%	66.0%	67.8%

## U.S. Workforce by Type

U.S. Workforce by Age Group

Men					
Under 30	10.0%	13.7%	12.3%	12.1%	11.4%
30-49	41.0%	43.1%	42.9%	43.0%	43.3%
50 and over	49.0%	43.2%	44.9%	45.0%	45.3%
Women					
Under 30	12.0%	15.5%	13.5%	13.1%	12.9%
30-49	49.0%	34.6%	49.6%	49.4%	49.7%
50 and over	39.0%	49.8%	36.9%	37.5%	37.4%
Total U.S. Workforce by Age Group					
Under 30	11.0%	14.2%	12.6%	12.3%	11.8%
30-49	43.0%	44.8%	42.8%	44.6%	45.0%
50 and over	46.0%	41.0%	44.6%	43.0%	43.2%

## U.S. Workforce by Reported Race and Ethnicity

Female					
White	63.0%	60.7%	61.3%	60.8%	59.0%
Black	26.0%	27.0%	25.3%	25.5%	27.6%
Asian	6.0%	6.6%	7.2%	7.4%	7.0%
Latino	5.0%	4.9%	5.1%	5.3%	5.4%
Nthw/Pcls/American Indian/Two or More Races	<1.0%	0.9%	1.0%	1.0%	1.0%
American Indian or Alaskan Native	•	•	•	•	0.4%
Native Hawaiian or Pacific Islander	•	•	•	•	0.1%
Two or More Races	•	•	•	•	1.0%
Male					
White	75.0%	72.9%	72.8%	72.2%	71.5%
Black	14.0%	15.0%	14.3%	14.3%	15.1%
Asian	6.0%	6.3%	6.8%	7.1%	6.9%
Latino	5.0%	4.9%	5.1%	5.3%	5.5%
Nthw/Pcls/American Indian/Two or More Races	<1.0%	0.9%	1.0%	1.0%	1.0%
American Indian or Alaskan Native	•	•	•	•	0.5%
Native Hawaiian or Pacific Islander	•	•	•	•	0.0%
Two or More Races	•	•	•	•	1.0%

## Total U.S. Workforce by Reported Race and Ethnicity

White	72.0%	69.7%	69.9%	69.2%	68.3%
Black	17.0%	18.1%	17.1%	17.2%	18.4%
Asian	6.0%	6.4%	6.9%	7.2%	6.8%
Latino	5.0%	4.9%	5.1%	5.3%	5.5%
Nthw/Pcls/American Indian/Two or More Races	<1.0%	0.9%	1.0%	1.0%	1.0%
American Indian or Alaskan Native	•	•	•	•	0.5%
Native Hawaiian or Pacific Islander	•	•	•	•	0.1%
Two or More Races	•	•	•	•	1.0%

# WORKFORCE

**(continued)**

	2015	2016	2017	2018	2019
<b>U.S. Workforce by Self-Identified as Having Disability</b>					
Male	79.0%	76.9%	76.3%	74.0%	73.6%
Female	21.0%	23.1%	23.7%	26.0%	26.4%
<b>U.S. Workforce by Self-Identified Veteran Status</b>					
Veteran					
Male	90.0%	85.8%	88.1%	88.2%	88.5%
Female	10.0%	14.2%	11.9%	11.8%	11.5%
Disabled Veteran					
Male	87.0%	88.9%	94.3%	92.9%	92.9%
Female	13.0%	11.1%	5.7%	7.1%	7.1%
<b>New Hires</b>					
Total	•	•	18,622	18,310	18,311
Women	•	•	6,176	6,090	6,768
People with Disabilities	•	•	136	100	120
Veterans	•	•	448	333	213
Minority	•	•	•	•	513

## GOVERNANCE & ETHICS

	2016	2017	2018	2019
<strong>Board Composition</strong>				
Director Gender				
Male	(6) 55%	(6) 55%	(5) 45%	(5) 45%
Female	(5) 45%	(5) 45%	(6) 55%	(6) 55%
Director Age				
50s	27.27%	36.50%	55%	27%
60s	45.45%	36.50%	36%	64%
70s	27.27%	27.00%	9%	9%
Average Age	64 years	64 years	62 years	62 years
Director Tenure				
1-2 Years	27.27%	18%	28%	27%
3-5 Years	45.45%	36%	36%	36.5%
6+	27.27%	46%	36%	36.5%
Average Tenure	4 years	5 years	4.8 years	4.8 years
Director Ethnic Diversity				
White	(9) 82%	(9) 82%	(10) 91%	(10) 91%
African American	(1) 9%	(1) 9%	(1) 9%	(1) 9%
Other	(1) 9%	(1) 9%	0%	0%
<strong>Meeting Statistics</strong>				
Board Meetings Held	8	10	10	8
Committee Meetings Held	29	29	29	23
Board Attendance	94%	97%	96%	97%
Executive Sessions	•	•	•	6

## GOVERNANCE & ETHICS

(continued)

	2016	2017	2018	2019
<b>Remuneration</b>				
Ratio of basic salary and remuneration of women to men ( <i>base salary only</i> )				
Executive Level	98.8%	97.5%	99.2%	100.3%
Management Level	100.5%	100.5%	106.2%	100.3%
Nonmanagement Level	97.1%	97.7%	98.3%	97.0%
<b>Ethics</b>				
Number of Employees, Contract Workers and Suppliers Completed Ethics Training	•	97,792	76,565	68,823
Number of Required Ethics Training Courses	•	391,167	5	6
Total Online Ethics Training Courses Delivered	•	448,237	425,468	446,551
Other Online Ethics Compliance Courses Taken by GM Employees	•	•	43,818	33,615
Number of In-Person Compliance Training Modules Delivered Directly from the Compliance Group	•	13,277	13,872	9,235
Percentage of Eligible Salaried Employees Completed Code of Conduct Certification	100%	100%	100%	100%
<b>Reports to the Awareline</b>				
Total	2,002	2,470	3,569	4,263
Allegations	•	•	•	3,483
Inquiries	•	•	•	234
Suggestions	•	•	•	15
<b>Reports to the Awareline</b>				
Category ( <i>Proportions of Allegations</i> )				
Accounting, Auditing and Financial Reporting	•	•	•	0.25%
Business Integrity	•	•	•	5%
Human Resources, Diversity and Workplace Respect	•	•	•	38%
Environment, Health and Safety	•	•	•	26%
Misuse, Misappropriation of Corporate Assets	•	•	•	31%

## ENVIRONMENTAL

	Baseline (2010)	2016	2017	2018	2019
<strong>Notices of Violations</strong>					
Number of Notices of Violation (NOV) in the U.S.	•	25	25	16	9
Number of Notices of Violation (NOV) outside of the U.S.	•	11	8	8	3
<strong>Energy &amp; Emissions</strong>					
Energy Intensity (MWh/vehicle)	2.31	2.00	1.96	2.03	2.13
Energy Consumption Within the Organization (in GJ)					
Total Fuel Consumption from Nonrenewable Sources	•	34,444,439	30,313,931	30,069,475	27,112,428
Total Fuel Consumption from Renewable Sources	•	2,981,123	1,118,454	1,100,142	6,535,854
Total Electricity Consumption	•	33,364,403	29,778,155	29,721,928	21,029,706
Heating Consumption	•	•	•	•	•
Cooling Consumption	•	•	•	•	•
Steam Consumption	•	4,105,376	1,610,934	2,124,961	1,664,478
Electricity Sold	•	•	20,232	•	•
Total Energy Consumption	•	74,895,341	62,801,243	63,016,506	56,342,466
Energy Consumption Outside of the Organization (in GJ)	•	2,526,364	1,283,882,121	0	3,183,499,282
Reduction of Energy Consumption (in GJ)	•	•	•	•	1,384,718
Renewable Energy (MW)	21.48	171.2	371.2	416	424
GHG Emissions Intensity (metric tons CO <sub>2</sub> e/vehicle)	0.88	0.74	0.68	0.67	0.72
Direct (Scope 1) GHG Emissions (gross direct) (metric tons CO <sub>2</sub> e)	•	2,003,265	1,848,804	1,763,555	1,589,700
Energy Indirect (Scope 2) GHG Emissions					
Gross Location-Based Indirect Emissions (metric tons CO <sub>2</sub> E)	•	•	•	4,322,761	4,381,970
Gross Market-Based Indirect Emissions	•	•	•	3,924,338	3,721,875
Other Indirect (Scope 3) GHG Emissions (gross other indirect) (metric tons CO <sub>2</sub> e)	•	320,911,918	286,310,319	264,563,698	249,384,317
Emissions of Ozone-Depleting Substances (ODS) (metric tons)	•	0.6	0.5	0.936	0.663
VOC Intensity (metric tons/vehicle)	0.0038	0.0028	0.0025	0.0024	0.00235
NOx (metric tons)	•	1,590	1,388	1,385	11,528
SOx (metric tons)	•	32	26	26	30.4

## ENVIRONMENTAL

(continued)

Baseline (2010)

2016

2017

2018

2019

Water					
Water Intensity (M3/vehicle)	4.77	4.13	4.21	4.23	4.26
Total Water Withdrawal by Source (megaliters)					31,255
Surface Water	•	•	•	0	0
Groundwater	•	•	•	3,265	3,186
Seawater	•	•	•	0	0
Produced Water	•	•	•	0	0
Third-party water	•	35,370,819	36,652,919	32,585	28,069
Total Water Withdrawal from All Areas with Water Stress, by Source (megaliters)					
Surface Water	•	•	•	0	0
Groundwater	•	•	•	0.86	1,515
Seawater	•	•	•	0	0
Produced Water	•	•	•	0	0
Third-party water	•	•	•	3,412	1,855
Total Water Withdrawal by Source					
Freshwater (≤1,000 mg/L Total Dissolved Solids)	•	•	•	3,412	3,370
Other water (>1,000 mg/L Total Dissolved Solids)	•	•	•	0.86	0
Water Discharge by Destination (megaliters)					
Surface Water	•	•	•	11,451	12,016
Groundwater	•	•	•	119	139
Seawater	•	•	•	0	0
Third-party water	•	•	•	22,548	15,468
Total Water Discharge, by Category* (megaliters)					
Freshwater (≤1,000 mg/L Total Dissolved Solids)	•	•	•	11,451	26,964
Other water (>1,000 mg/L Total Dissolved Solids)	•	•	•	0	114
Total Water Discharge to All Areas with Water Stress, by Category					
Freshwater (≤1,000 mg/L Total Dissolved Solids)	•	•	•	0	26,964
Other water (>1,000 mg/L Total Dissolved Solids)	•	•	•	0	114
Water Discharge by Quality and Destination (million m3)					
Direct Discharge (to surface water body)	•	16.3	13.1	22.5	12.02
Indirect Discharge (to treatment facility)	•	27.4	24.2	11.5	15.47
Discharge to Groundwater	•	0.2	0.1	0.1	0.14
Total Water Consumption from All Areas (megaliters)	•	•	•	10,738	9,376
Total Water Consumption from All Areas with Water Stress (megaliters)	•	•	•	1,104	1,011

## ENVIRONMENTAL

(continued)

Baseline (2010)

2016

2017

2018

2019

Waste					
Waste Intensity (kg/vehicle)	307	222	229	224	222
Landfill-Free Sites	66	131	142	137	94
Waste by Type and Disposal Method (metric tons to nearest whole number)					
Reuse	•	462,706	126,004	78,208	67,925
Recycling	•	1,718,168	1,697,068	1,587,825	1,355,174
Composting	•	3,468	3,065	6,362	5,779
Recovery, Including Energy Recovery	•	61,967	60,938	92,168	71,222
Incinerating (mass burn)	•	20,891	20,751	21,151	16,802
Deep Well Injection	•	•	minimal	•	0
Landfill	•	278,906	291,663	287,264	230,907
On-Site Storage	•	minimal	minimal	0	0
Other (includes microwaving, enclaves, plasma processing and other treatments)	•	6,952	11,777	22,024	22,578
Total	•	2,553,058	2,211,266	2,095,002	1,770,387
Transport of Hazardous Waste					
Metric Tons of Hazardous Waste Transported	•	•	4,409	3,995	3,077
Hazardous Waste Imported	•	•	0	0	0
Hazardous Waste Exported	•	•	0	0	0
Metric Tons Hazardous Waste Treated	•	•	112	58	274
Percent Hazardous Waste Shipped Internationally	•	•	0	0	0

## COMMUNITY

2015

2016

2017

2018

2019

Corporate Giving					
2019 Focus Area Funding					
STEM	•	•	•	•	36%
Vehicle and Road Safety	•	•	•	•	9%
Community Development	•	•	•	•	23%
Detroit	•	•	•	•	32%
Individuals Impacted by Programming					
STEM	•	•	•	•	300,000
Vehicle and Road Safety	•	•	•	•	1.1 million
Community Development	•	•	•	•	91,000
Detroit	•	•	•	•	339,000
Community Impact Grants					
Amount of Funding Provided	•	•	•	•	\$2 million+
Number of Nonprofits	•	•	•	•	150+
teamGM Cares					
Repurposed Business Resources for Nonprofits	•	•	•	•	\$4.5 million
Nonprofits	•	•	•	•	541
U.S. States	•	•	•	•	19
Countries	•	•	•	•	13
Employee Participation	•	12,167	15,445	17,648	18,880

**2019 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY**

# Statement of Verification

## Introduction

Stantec Consulting Ltd. (Stantec) was contracted by General Motors Company (GM) to conduct an independent third-party verification of a selection of greenhouse gas (GHG) and sustainability data assertions (the assertions) for their Global Facilities.

In this work, GM was responsible for the collection of activity data used in the calculations, data management, and completion of the calculations.

Stantec was responsible for planning and executing the verification to deliver an opinion to a limited level of assurance as to whether the GHG and sustainability data assertions are presented fairly and in accordance with the verification criteria. Stantec is accredited with the American National Standards Institute (ANSI), a member of the International Accreditation Forum (IAF), in accordance with ISO 14065 (Accreditation ID #0805 issued to Stantec Consulting Ltd. for greenhouse gas (GHG) verification and validation).

## Intended User

The results of the verification will be used by GM for internal and external sustainability reporting, and for reporting to CDP. The users of this statement are GM, shareholders and the public.

## Verification Objective

The objective of the verification was to assess whether the GHG and sustainability data assertions (as presented in Table 1) for GM's 2019 operations are accurately prepared in accordance with appropriate criteria.

## Verification Boundaries

The boundaries of the verification include GM owned and operated facilities within General Motors North America (GMNA), General Motors South America (GMSA) and General Motors International Operations (GMIO). A subset of these facilities have been excluded from the GHG and sustainability data assertions due to unavailability of data, and a list of these excluded facilities has been provided to Stantec and included in the detailed verification report for transparency.

## Reporting Period

The verification was conducted for the period of January 1, 2019 to December 31, 2019.

## GHG and Sustainability Data Assertions

The GHG and sustainability data assertions are provided in Table 1.

2019 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY



**Table 1. General Motors Global Facilities - 2019 GHG and Sustainability Data Assertions**

Parameter	Assertion	Units	Notes
Scope 1 GHG Emissions - Total	1,589,700	Metric tonnes of carbon dioxide equivalent (tCO2e)	-
Scope 2 GHG Emissions (Location Based)	4,381,970	tCO2e	-
Scope 2 GHG Emissions (Market Based)	3,721,875	tCO2e	-
Scope 3 GHG Emissions Fuel & Energy not in Scope 1 & 2 (Category 3)	322,403	tCO2e	-
Scope 3 GHG Emissions Business Travel, Air (Category 6)	40,051	tCO2e	Air travel only
Scope 3 GHG Emissions Use of Sold Product (Category 11)	190,123,729	tCO2e	Includes emissions from vehicle travel and air conditioning systems
Total Energy Use	15,650,685	MWh	-
Total Water Use	31,254,916	m3	-
Total Waste	1,770,387	metric tonnes	Does not include waste from construction, demolition and remediation
Waste per Vehicle Produced	222	kg per vehicle	-
Total renewable electricity	1,636,792	MWh	-
Total electricity use	7,478,378	MWh	-
Renewable electricity as a percentage of total electricity use	21.9%	%	-
Total GHG reductions applied due to renewable electricity use	660,094	tCO2e	-
Number of landfill-free facilities	94	# Facilities	-
Year Over Year Performance Scope 1 & 2 GHG emissions (negative value represents decrease)	-14.2	%	Location-Based (Scopes 1 & 2)

2019 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY



Parameter	Assertion	Units	Notes
Year Over Year Performance Total Energy Use (negative value represents decrease)	-9.9	%	Scopes 1 & 2
Year Over Year Performance Total Water Use (negative value represents decrease)	-14.5	%	M-Schedule (saleable vehicles)
Year Over Year Performance Vehicles Produced (negative value represents decrease)	-15.4	%	-
Year Over Year Performance Waste per Vehicle (negative value represents decrease)	-0.9	%	-
GRI 302-1 Total Energy Use	15,650,685	MWh	-
GRI 303-1 Total Water Use	31,254,916	m3	-
GRI 305-1 Total Scope 1 GHG Emissions	1,589,700	tCO2e	-
GRI 305-2 Total Scope 2 GHG Emissions	4,381,970	tCO2e	Location-Based
GRI 305-3 Total Scope 3 GHG Emissions	Category 3: 322,403 Category 6: 40,051 Category 11: 190,123,729	tCO2e	Category 6 is air travel only. Category 11 includes emissions from vehicle travel and air conditioning systems
GRI 305-7 NOx, SOx and other significant air emissions	SOx (as SO2): 0.03 NOx: 11.5	thousand metric tonnes	Does not include combustion of mobile fuels
GRI 306-2 Total Waste (excluding construction, demolition and remediation)	1,770,387	metric tonnes	Does not include waste from construction, demolition and remediation
Production	7,332,373	# Vehicles	M-Schedule (saleable vehicles)

2019 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY



## Verification Criteria

Stantec has conducted sufficient and appropriate procedures to express a ***limited level of assurance*** opinion as to whether the GHG and sustainability data assertions for 2019 as quantified by GM satisfy the requirements of the following criteria:

- ISO 14064 Greenhouses Gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals, 2006;
  - World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD), *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (Revised Edition), March 2004;
  - WRI/WBCSD, Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard;
  - WRI/WBCSD, GHG Protocol Scope 2 Guidance: An Amendment to the GHG Corporate Standard;
  - CDP Guidance for the 2019 reporting year (CDP Guidance); and
  - GRI Sustainability Reporting Guidelines (2011).

## Verification Standards

The verification is being conducted in accordance with ISO14064:3, the AA1000 AccountAbility Principles Standard (2008) and Stantec's Standard Operating Procedures developed for accreditation to ISO 14065.

## Verification Opinion

Based on the processes and procedures completed, there is no evidence that GM's stated GHG and sustainability data assertions for the 2019 calendar year are not, in all material respects, fairly stated in accordance with the criteria noted herein.

2019 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY



## Verifier's Independence, Impartiality, and Competence

Stantec provides this conclusion as an independent verifier. Prior to entering into an assurance agreement, Stantec assesses for any real, potential, or perceived conflict. Stantec continues to monitor for compromised impartiality throughout the engagement. No real, potential or perceived conflicts of interest were identified throughout the course of this verification.

Stantec provides this report to GM in accordance with our terms of agreement. We consent to its public release. Because of the inherent limitations in any verification, Stantec accepts no responsibility by use of a third party. Stantec has undertaken all assignments in its role as an environmental engineering consulting firm using professional effort consistent with ISO 14064:3. Stantec has assessed the 2019 GHG and sustainability data assertions for GM Global Facilities using reasonably ascertainable information. The assessment represents the conditions in the subject area at the time of the assessment. Stantec did not conduct direct GHG emissions monitoring or other environmental sampling and analysis in conjunction with this verification statement.

STANTEC CONSULTING LTD.

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Issued July 10, 2020 in Waterloo, Ontario, Canada

**2018 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY**

# Statement of Verification

## Introduction

Stantec Consulting Ltd. (Stantec) was contracted by General Motors Company (GM) to conduct an independent third-party verification of a selection of greenhouse gas (GHG) and sustainability data assertions (the assertions) for their Global Facilities.

In this work, GM was responsible for the collection of activity data used in the calculations, data management, and completion of the calculations.

Stantec was responsible for planning and executing the verification to deliver an opinion to a limited level of assurance as to whether the GHG and sustainability data assertions are presented fairly and in accordance with the verification criteria. Stantec is accredited with the American National Standards Institute (ANSI), a member of the International Accreditation Forum (IAF), in accordance with ISO 14065 (Accreditation ID #0805 issued to Stantec Consulting Ltd. for greenhouse gas (GHG) verification and validation).

## Intended User

The results of the verification will be used by GM for internal and external sustainability reporting, and for reporting to CDP. The users of this statement are GM, shareholders and the public.

## Verification Objective

The objective of the verification was to assess whether the GHG and sustainability data assertions (as presented in Table 1) for GM's 2018 operations are accurately prepared in accordance with appropriate criteria.

## Verification Boundaries

The boundaries of the verification include GM owned and operated facilities within General Motors North America (GMNA), General Motors South America (GMSA) and General Motors International Operations (GMIO). A subset of these facilities have been excluded from the GHG and sustainability data assertions due to unavailability of data, and a list of these excluded facilities has been provided to Stantec and included in the detailed verification report for transparency.

## Reporting Period

The verification was conducted for the period of January 1, 2018 to December 31, 2018.

## GHG and Sustainability Data Assertions

The GHG and sustainability data assertions are provided in Table 1.

2018 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY



**Table 1. General Motors Global Facilities - 2018 GHG and Sustainability Data Assertions**

Area	Metric
CDP GHG and Energy Reporting Metrics (carbon dioxide equivalent, CO <sub>2</sub> e and MWh)	<ul style="list-style-type: none"> <li>Scope 3 Other Indirect GHG Emissions and Energy Use:             <ul style="list-style-type: none"> <li>Purchased goods &amp; services (Category 1)</li> <li>Capital goods (Category 2)</li> <li>Upstream transportation (Category 4)</li> <li>Downstream transportation (Category 9)</li> </ul> </li> </ul>
GRI Reporting Metrics	<ul style="list-style-type: none"> <li>GRI 305-3 Total Scope 3 GHG emissions (Categories 1, 2, 4 and 9)</li> </ul>

## Verification Criteria

Stantec has conducted sufficient and appropriate procedures to express a ***limited level of assurance*** opinion as to whether the GHG and sustainability data assertions for 2018 as quantified by GM satisfy the requirements of the following criteria:

- ISO 14064 Greenhouses Gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals, 2006;
  - World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD), *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (Revised Edition), March 2004;
  - WRI/WBCSD, Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard;
  - CDP Guidance for the 2018 reporting year (CDP Guidance); and
  - GRI Sustainability Reporting Guidelines (2011).

## Verification Standards

The verification is being conducted in accordance with ISO14064:3, the AA1000 AccountAbility Principles Standard (2008) and Stantec's Standard Operating Procedures developed for accreditation to ISO 14065.

## Verification Opinion

Based on the processes and procedures completed, there is no evidence that GM's stated GHG and sustainability data Scope 3 (Categories 1, 2, 4 and 9) assertions for the 2018 calendar year are not, in all material respects, fairly stated in accordance with the criteria noted herein. A copy of the verification statement is provided in Appendix C.

2018 VERIFICATION STATEMENT – GENERAL MOTORS COMPANY



## Verifier's Independence, Impartiality, and Competence

Stantec provides this conclusion as an independent verifier. Prior to entering into an assurance agreement Stantec assesses for any real, potential, or perceived conflict. Stantec continues to monitor for compromised impartiality throughout the engagement. No real, potential or perceived conflicts of interest were identified throughout the course of this verification.

Stantec provides this report to GM in accordance with our terms of agreement. We consent to its public release. Because of the inherent limitations in any verification, Stantec accepts no responsibility by use of a third party. Stantec has undertaken all assignments in its role as an environmental engineering consulting firm using professional effort consistent with ISO 14064:3. Stantec has assessed the 2019 2018 GHG and sustainability data Scope 3 (Categories 1, 2, 4 and 9) assertions for GM Global Facilities using reasonably ascertainable information. The assessment represents the conditions in the subject area at the time of the assessment. Stantec did not conduct direct GHG emissions monitoring or other environmental sampling and analysis in conjunction with this verification statement.

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zero crashes, zero congestion, zero crashes, zero emissions, zero crashes, zero congestion, zero emissions, zero crashes, zero congestion, zero emissions, zero emissions, zero crashes, zero congestion, zero crashes, zero emissions, zero crashes, zero congestion, zero emissions, zero emissions, zero crashes, zero emissions

**Cautionary Note on Forward-Looking Statements:** This document may include "forward-looking statements" within the meaning of the U.S. federal securities laws. Forward-looking statements are any statements other than statements of historical fact. Forward-looking statements represent our current judgment about possible future events and are often identified by words like "aim," "anticipate," "appears," "approximately," "believe," "continue," "could," "designed," "effect," "estimate," "evaluate," "expect," "forecast," "goal," "initiative," "intend," "may," "objective," "outlook," "plan," "potential," "priorities," "project," "pursue," "seek," "should," "target," "when," "will," "would," or the negative of any of those words or similar expressions. In making these statements we rely on assumptions and analysis based on our experience and perception of historical trends, current conditions and expected future developments, as well as other factors we consider appropriate under the circumstances. We believe these judgments are reasonable, but these statements are not guarantees of any future events or financial results, and our actual results may differ materially due to a variety of important factors, both positive and negative, many of which are beyond our control. Factors that might cause such differences include, but are not limited to, a variety of economic, competitive, social and regulatory factors, many of which are described in our Annual Report on Form 10-K for the year ended December 31, 2019 and our subsequent filings with the U.S. Securities and Exchange Commission. We caution readers not to place undue reliance on forward-looking statements. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update publicly or otherwise revise any forward-looking statements, whether as a result of new information, future events or other factors, except where we are expressly required to do so by law.