



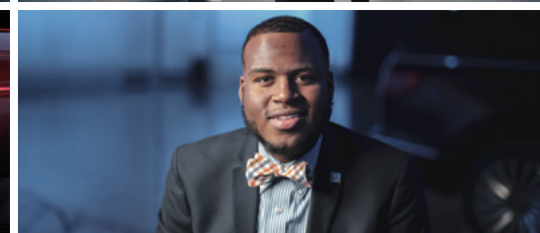
OUR FUTURE IS IN MOTION

WHAT DRIVES US

SUSTAINABILITY REPORT 2020



WWW.SUSTAINABILITY.FORD.COM



WELCOME

Welcome to our 2020 Sustainability Report, the 21st annual report of our sustainability progress. We see reporting as an ongoing, evolving process and expect our reporting to continue to evolve. We invite your feedback on the contents of this report, as well as our approach to reporting, at sustaina@ford.com.

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ABOUT OUR REPORTING SUITE

This Sustainability Report details our sustainability performance for 2019 and early 2020.

To supplement this report, we publish summary information online, at sustainability.ford.com, and in an [eight-page summary](#).

We support and align with the world's leading sustainability reporting frameworks. You can find all our indexes on our [downloads page](#).

- [Bloomberg Gender-Equality Index \(GEI\)](#)
- [Global Reporting Initiative \(GRI\) Content Index](#)
- [Sustainability Accounting Standards Board \(SASB\) Index](#)
- [Task Force on Climate-related Financial Disclosures \(TCFD\) Index](#)
- [UN Global Compact \(UNGC\) Communication on Progress Index](#)
- [UN Guiding Principles Reporting Framework \(UNGPRF\) on Human Rights Index](#)
- [United Nations Sustainable Development Goals \(UN SDGs\) Index](#)

Reporting Scope and Boundaries

Consistent with GRI guidance on boundary setting, the data in this report covers all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted, and spans 2019 data for operations and 2019–2020 data for vehicles, some of which was affected by the COVID-19 outbreak. Boundaries for each material issue are noted in our [GRI Content Index](#).

Where relevant, data measurement techniques, the bases of calculations and changes in the basis for reporting or reclassifications of previously reported data are included as footnotes.

Data Assurance

Data in this report is subject to various forms of assurance, as outlined below and noted in the data tables. The [summary report](#) has been reviewed by Ford's top senior executives, as well as the Sustainability and Innovation Committee of the Board of Directors.

Some of the data in our reports has been subject to internal and third-party verification.

Financial data was audited for disclosure in the [Ford Annual Report on Form 10-K](#).

Verification data is not yet available for Ford's 2019 global facility greenhouse gas (GHG) emissions. All (100 percent) of Ford's 2019 global facility GHG emissions will be third-party verified to a limited level of assurance in conformance with ISO 14064-1:2018. In addition, all of our European facilities impacted by the mandatory EU Emissions Trading Scheme (EU-ETS) are third-party verified. All EU-ETS verification statements are provided to Ford, by facility, from Lucideon (formerly CICS) for U.K. facilities, Lloyds for Spain and Intechnica for Germany. European facilities are verified against the EU-ETS rules and guidelines.

Ford reports facility carbon dioxide (CO₂) equivalent emissions to national emissions registries or other authorities in the United States, Canada, Mexico, Brazil, China, Germany, Spain and the U.K.

Various environmental data is reported to regulatory authorities. Ford's facility environmental data is managed using our Global Emissions Manager database, which provides a globally consistent approach to measurement and monitoring. The kind of assurance used for each data set is noted in the data charts.

LETTER FROM WILLIAM CLAY FORD, JR. AND JIM HACKETT

We believe that freedom of movement drives human progress and are committed to helping everyone move more safely, confidently and freely. Global challenges, from climate change and public health to the physical and social barriers to mobility, are shaping the way we do business. How we navigate these challenges will be critically important on our journey to becoming the world's most trusted company.

Last year, we celebrated 20 years of sustainability reporting by setting ambitious new goals to help us make a positive impact on the communities where we live and work. In this year's report we have turned the spotlight on the amazing people behind our progress: our skilled employees, our dedicated dealers, suppliers and partners, our local communities and our valued customers. They are front and center in everything we do.

In these unprecedented times we are reminded of how fragile this world can be. But we also are reminded of how powerful it is when we work together to drive human progress. These beliefs confirm our current actions to address climate change and compel us to continue to change our behavior in profound and lasting ways. Ford is the only full line U.S. automaker committed to doing its part to reduce CO₂ emissions in line with the Paris Climate Agreement and working with California for stronger vehicle greenhouse gas standards.

To help reduce the CO₂ emissions associated with our vehicles we are offering a new generation of lower-carbon powertrains and fuels, including hybrids and electric vehicles (EVs). We are launching electrified versions of our most popular nameplates – the world's number one truck, best-selling sports car and commercial vehicles among them – and offering customers access to North America's largest EV charging network.

“**TO PROTECT OUR PLANET, BOTH NOW AND FOR FUTURE GENERATIONS, WE ARE AIMING TO SOURCE 100 PERCENT RENEWABLE ENERGY FOR ALL OUR MANUFACTURING SITES BY 2035. WE ALSO HAVE SET A NEW GOAL FOR OURSELVES: ACHIEVE CARBON NEUTRALITY GLOBALLY BY 2050.**”

With our Creating Tomorrow Together transformation plan we are accelerating our efforts to be a leader in mobility and making progress toward our vision of clean, safe, affordable and accessible transportation for all, with less congestion, better air quality, shorter journey times and fewer accidents. We foresee smart vehicles operating in a smart world, communicating with each other and the surrounding infrastructure through open-source platforms such as our Transportation Mobility Cloud. To help fulfill our vision we have invested in strategic partnerships with Argo AI and Volkswagen to develop self-driving technology. We also are making shorter journeys more efficient through our e-scooter business Spin.

In a time of challenges and change what drives us remains the same: leaving things better than we found them. By keeping people at the heart of every decision we make, we will build trust and create a better future, together.

WILLIAM CLAY FORD, JR.
EXECUTIVE CHAIRMAN

JIM HACKETT
PRESIDENT AND CHIEF
EXECUTIVE OFFICER



William Clay Ford, Jr.
Executive Chairman

Jim Hackett
President and
Chief Executive Officer

OUR RESPONSE TO THE COVID-19 OUTBREAK

Our hearts go out to everyone affected by the coronavirus crisis. Throughout our history, Ford has always answered the call for help when needed and that legacy has continued during the COVID-19 outbreak. As well as acting quickly to keep our people safe, we have supported our communities and customers around the world.

KEEPING OUR EMPLOYEES SAFE AND WELL

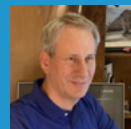
The safety and well-being of our people has always been our top priority. To protect our employees, we took the difficult but necessary decision to temporarily suspend component and vehicle production beginning early February in China and mid-March across the rest of our global operations. We also provided many of our employees with the technology to continue their work from home, in line with shelter-in-place guidance in their host countries, implemented programs to support their

physical, mental and emotional health, and conducted surveys to understand their work preferences.

We developed return-to-work protocols for our manufacturing and non-manufacturing operations globally, with amended safety requirements and restructured roles. These comprehensive “playbooks” are being applied consistently at all our locations to ensure the safety of all employees.

ADAPTING TO CHANGING CUSTOMER NEEDS

We fully appreciate and value the efforts of first responders, so we ensured dealership service centers remained open, largely to maintain emergency response vehicles. And we expanded our mobile maintenance pilot program for retail and commercial fleet customers in the U.K., the United States and Argentina, helping crucial support vehicles stay on the road.



“THIS IS ONE OF THE GREATEST CRISES TO THREATEN HUMANITY IN MY LIFETIME. IN TIMES OF CRISIS, IT IS INCUMBENT UPON EVERY CITIZEN TO DO WHAT THEY CAN, WHETHER IT'S TO STAY AT HOME AND SOCIALLY ISOLATE OR LEVERAGE THEIR SKILLS IN DIFFERENT WAYS AND HELP.”

ADRIAN PRICE, DIRECTOR, GLOBAL CORE ENGINEERING – VEHICLE OPERATIONS MANUFACTURING

With many customers financially impacted by the outbreak, Ford Credit's “Built to Lend a Hand” program offers existing U.S. customers affected by the coronavirus the option for payment deferral. Eligible new customers in the United States can defer payments for up to three months and Ford will pay for three months, providing up to six months of payment peace of mind.

FORD HAS CONSISTENTLY APPEARED IN THE TOP THREE “COMPANIES RESPONDING IN A MEANINGFUL WAY TO THE CRISIS,” ACCORDING TO THE [HARRIS POLL](#).

To minimize the risk of spreading the virus, we now offer a fully digitized “shop, buy and own” journey, and more than one-third of our sales in China are now made online. Ford dealers now employ our “No Touch” service program with remote pickup and delivery, and fully disinfect vehicle surfaces for greater peace of mind. With one eye on the future, we have been working with Ohio State University to assess whether new materials might help us create anti-bacterial surfaces.

Having enhanced the software on our Police Interceptor Utility vehicles, we are enabling the powertrain and climate control systems to “bake” the interior at 56°C/133°F for 15 minutes – long enough to disinfect the vehicle effectively, according to Ohio State University.



HELPING IN THE FIGHT AGAINST COVID-19

Health care professionals, first responders, transport workers and store clerks are putting themselves in harm's way to provide essential services. To support them as best we can, we have used our design expertise and manufacturing capacity to help produce medical and personal protective equipment, joining forces with union representatives and partners from other industries around the world.

- In just 40 days, we worked with 3M to design and develop a new Powered Air-Purifying Respirator (PAPR), using existing parts including fans from Ford F-150 cooled seats. Volunteers at our Vreeland facility in Flat Rock, Michigan, will produce as many as 100,000 PAPRs
- Working with GE Healthcare, volunteer employees in Michigan will produce as many as 50,000 Model A-E ventilators, a simplified ventilator designed to operate on air pressure without the need for electricity, within the first 100 days of beginning production
- Our design team created transparent full-face shields, which were tested at three hospitals in the Detroit area. We have since ramped up production to a maximum capacity of more than 4 million a week
- Our Chihuahua Engine Plant in Mexico is producing 100,000 face shields for health care workers across Central



America, while volunteers in Spain, Brazil and Argentina have also been making face shields

- We leveraged the 3D printing capability at our Advanced Manufacturing Center to produce disposable respirator masks
- We collaborated with suppliers to produce collection kits for testing patients and make up to 300,000 reusable isolation gowns a week from airbag materials

SUPPORTING OUR COMMUNITIES

Our philanthropic arm, Ford Fund, has allocated resources worth \$1.6 million to help communities and nonprofits on our doorstep and around the world to address hunger, shelter and mobility challenges related to COVID-19.

We have donated or loaned vehicles to charities and medical organizations across the world, supporting the distribution of food and medical supplies and the transportation of volunteers and patients. During National Nurses Week, Lincoln delivered 1,000 meals to frontline workers at medical centers in Los Angeles and New York, accompanied by thank-you messages from customers.

Our employees have shown they care through the COVID-19 Donation Match Program, a combined effort between Ford Fund and Bill Ford that will match \$500,000 in donations to community organizations fighting COVID-19, raising a potential \$1 million. Ford employees are also reading children's books for our Read and Record project, creating an online library for young people affected by school closures.

[Read the latest coronavirus news and updates on Ford.com](#)

Our Holistic Approach

Our "global policy, local action" approach has been supported by robust governance structures and clear communication, and directed by a cross-functional Crisis Management team.

With a global shutdown forcing a renewed focus on cost and liquidity, we reduced spending across the business to ensure we emerge from the crisis stronger. Our recent actions provide the flexibility to weather the disruption caused by COVID-19 and the confidence to continue investing in growth opportunities. While the effects of the coronavirus may affect timings, we are still excited about the new launches we have planned.



WE'VE BEEN AROUND 117 YEARS. WE WERE THE ARSENAL OF DEMOCRACY DURING TWO WORLD WARS, AND WE BUILT IRON LUNGS FOR POLIO VICTIMS. WHENEVER WE'RE CALLED ON, WE'RE THERE."

BILL FORD, EXECUTIVE CHAIRMAN



OUR SUSTAINABILITY STRATEGY

We are changing the way we work, how vehicles are made and the way people move. We are changing lives for the better. We are Creating Tomorrow, Together.

Building on our strengths, we're investing in our core business of designing, manufacturing, marketing, financing and servicing cars, sports utility vehicles (SUVs), trucks and commercial vehicles. And, at this pivotal moment in time in our industry, we are up to the challenge to maximize new opportunities created by electrification, self-driving technology and mobility solutions.

• Changing how products are made:

We're creating high-quality vehicles in an environmentally and socially responsible way, and reducing the impacts of our operations and supply chains through world-class facilities, innovative manufacturing processes and the most sustainable materials

• Changing the way people move:

We're creating smart vehicles and mobility solutions for a smart world, based on our long-term vision of increasing access to easier, safer and cleaner journeys for all

• Changing the way we work:

For the customer to be at the center of all we do, employee centricity is critical. This includes empowering decisions to be made at the lowest level, streamlining systems and processes, and ensuring we are developing our team for the skills needed today and in the future. It is imperative to have an inclusive culture where all voices are heard, and everyone supporting Ford feels that they belong. We also are flexible in where and how work is done, providing the necessary tools and technology for teams to collaborate virtually, while providing energizing workspaces when teams meet face to face

• Changing lives for the better:

As a global employer, brand, purchaser and neighbor, we want to have a positive influence on the future. We can do this through our vehicles and services, as well as by offering the best customer experience, assisting disadvantaged populations, strengthening our supply chain and building safe, inclusive workplaces



OUR ASPIRATIONAL GOALS



Climate Change

We aspire to achieve **carbon neutrality** by 2050



Human Rights

We aspire to **responsibly source all raw materials** used within our vehicles globally



Diversity

We aspire to become the **most inclusive and diverse** global company



Energy

We will use **100 percent locally sourced renewable energy** for all manufacturing plants globally by 2035



Waste

We will achieve **true zero waste to landfill** across our operations

We will **eliminate single-use plastics** from our operations by 2030



Access

We aspire to **drive human progress** by providing mobility and accessibility for all



Water

We will make **zero water withdrawals** for manufacturing processes

We will use **freshwater for human consumption only**



Air

We aspire to achieve **zero air emissions** from our facilities



Materials

We aspire to only use **recycled and renewable plastics** in our vehicles globally

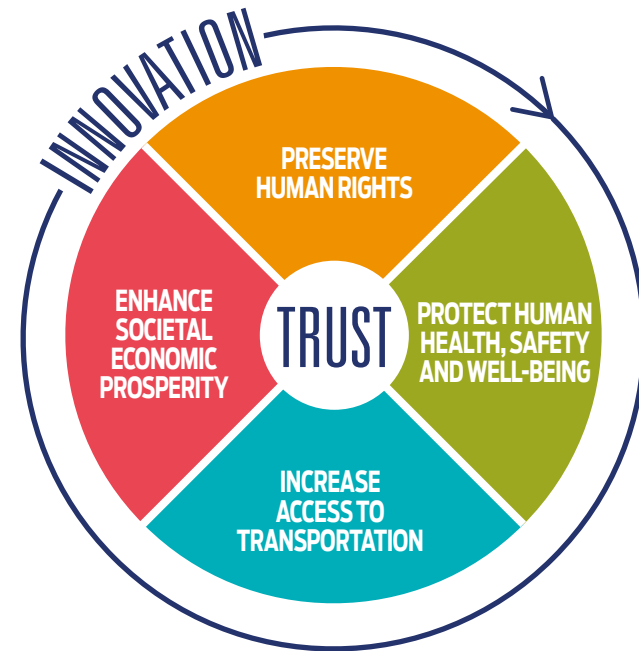
OUR ISSUES-SPECIFIC STRATEGIES

Our approach to sustainability involves doing our share to meet the collective challenges the world faces. To address the full range of these material issues, we have developed a number of strategies that are targeted toward specific topics.

- [People Strategy](#)
- [Human Rights Strategy](#)
- [Climate Change Strategy](#)
- [Sustainable Materials Strategy](#)
- [Circular Economy Strategy](#)
- [Renewable Energy Strategy](#)



In a recent study with the Erb Institute at the University of Michigan, we asked internal and external stakeholders “What does human progress mean?” The findings – which spanned preserving human rights, protecting health and safety, increasing access to transportation, and enhancing societal economic prosperity – suggest that trust and innovation are both essential to driving human progress.



OUR AIMS



Trusted Mobility: To become the world's most trusted company

We understand that trust is earned by living up to your commitments. Our ambitions in this area are based on behaving ethically and with integrity, acknowledging where we can improve, being transparent and open to change, and striving to serve others.



Driving Human Progress: To provide vehicles and services that help create a better world and facilitate freedom of movement

Throughout our history, our purpose has always been based on driving human progress through mobility and accessibility. We will continue to explore and develop new solutions in connectivity, automation and electrification, foster different capabilities within our business and use human-centered design to make the future better for everyone.



Positive Impact: To not just reduce our footprint but to develop innovations that bring positive benefits

We want to go beyond minimizing the impact of our activities to having a net positive contribution to society and the environment. Naturally, we want our vehicles to use less fuel and produce fewer emissions. But our long-term vision – of a connected transport network comprising increasingly intelligent vehicles communicating with each other and the world around them – will make people's lives better in ways they may not yet realize.

OUR LONG-TERM VISION – OF A CONNECTED TRANSPORT NETWORK COMPRISING INCREASINGLY INTELLIGENT VEHICLES COMMUNICATING WITH EACH OTHER AND THE WORLD AROUND THEM – WILL MAKE PEOPLE'S LIVES BETTER IN WAYS THEY MAY NOT YET REALIZE.

PRIORITIZING KEY ISSUES

The world is constantly changing, so conducting a formal materiality assessment helps us identify and prioritize the sustainability issues that matter most to our business and are of most concern to our stakeholders. The process we undertake enables us to focus our sustainability strategy, resources and reporting on these issues.

MATERIALITY RESULTS

We conduct materiality assessments every two years and carried out our most recent analysis in early 2019. The results are reflected in the matrix opposite.

We consider material information to be that of greatest interest to, and having the potential to affect the perception of, those stakeholders who wish to make informed decisions and judgments about the company's commitment to environmental, social and economic progress.

The analysis identified our most material issues as:

- Electrification and alternative fuels
- Customer satisfaction, vehicle quality and safety
- Vehicle carbon footprint/fuel economy
- Climate change/resilience strategy/energy future
- Supply chain management/capacity building and performance/responsible sourcing of raw materials

We consider human capital, human rights, health and safety, and diversity and inclusion as issues of great importance for social and economic progress. We also acknowledge other emerging trends and assess them for inclusion as they arise. COVID-19 has reinforced the importance of putting people first and embracing disruption to evolve.

Our Materiality Matrix

The materiality matrix (right) plots each issue and the ratings accorded to it. The y-axis represents the influence on stakeholders and the x-axis represents the impact on Ford. Issues found closer to the upper right-hand corner of the matrix are of higher influence and impact to both Ford and its stakeholders.

[See the GRI Content Index for the definitions of our material issues](#)

Our Materiality Process

Identification

We created a list of potential issues, grouped into four categories: governance and ethics, planet, people and innovation. These were identified through desk-based research, which included a peer review, media scan and review of sustainability thought leadership from industry experts and associations.

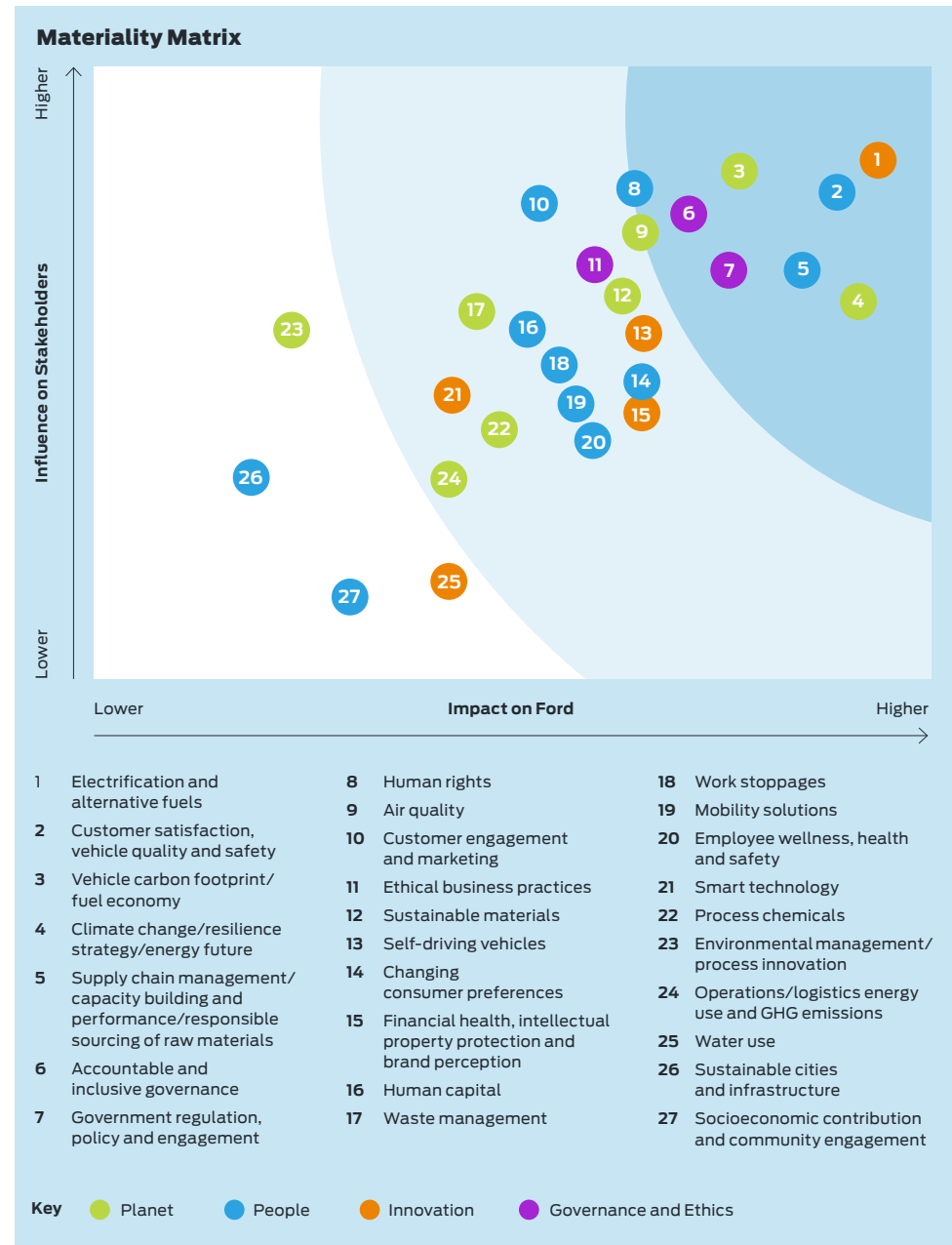
Prioritization

An online survey, followed by a workshop attended by external and internal stakeholders, helped us in further identifying key challenges and opportunities, and prioritizing the issues.

Review

The results of the analysis were reviewed by a range of internal and external stakeholders. Revisions were made to ensure that our process and list of issues were comprehensive, well understood and reflective of stakeholders' views and feedback.

[See our GRI Content Index for more details on our approach to materiality](#)



STAKEHOLDER REVIEW OF OUR REPORT

Dialogue with our stakeholders fosters trust, helps us identify new trends and emerging issues, and consolidate the partnerships we have established to help us achieve our aspirational goals.

Investors and Analysts

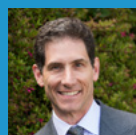
Through face-to-face meetings, telephone calls, roadshows and conferences, Ford regularly engages with investors and analysts, who increasingly factor in environmental, social and governance (ESG) aspects in their investment decisions.

Sustainability and Innovation Committee

As part of their responsibilities, the members of our Sustainability and Innovation Committee of the Board of Directors review the summary Sustainability Report.

Ceres Stakeholder Committee

As in recent years, a stakeholder team selected by Ceres provided recommendations for this report. Representing a range of constituencies and expertise, including investors, academia, small- and medium-sized enterprises (SMEs) and suppliers, the Ceres Stakeholder Committee convened in April 2020. Ford's responses to their recommendations are summarized as follows:



“FORD MOTOR COMPANY UNDERSTANDS THE IMPORTANCE, AND THE VALUE, OF REGULARLY INVITING REPRESENTATIVES OF KEY STAKEHOLDER INTERESTS TO OFFER SPECIFIC, ACTIONABLE RECOMMENDATIONS FOR IMPROVING THE COMPANY'S SUSTAINABILITY PERFORMANCE. THROUGH OUR ENGAGEMENT WE CONSTRUCTIVELY CHALLENGE THE COMPANY'S LEADERSHIP TO THINK BIGGER, BOLDER AND FASTER IN PURSUIT OF THEIR MOST MATERIAL, AND MOST URGENT, OBJECTIVES.”

JOHN WEISS, SENIOR DIRECTOR, CERES COMPANY NETWORK

Recommendation Addressing Specific Climate Change Goals and Leadership Initiatives

Ford response

Aspiring to achieve carbon neutrality globally by 2050, we focus on vehicle use, suppliers and factories, which together represent 95 percent of our emissions. We also need to address many external factors, including government policies, technical solutions, energy price fluctuations and changes in consumer demand. We will advocate for key enablers that support our aspirational goal and encourage collaboration between stakeholders.

Recommendation

Focusing on the Positive Impact of Human Rights Systems Throughout the Supply Chain

Ford response

We rely on the skills of thousands of employees and people in our supply chain. Everything we make – or that others make for us – needs to be consistent with local laws and our own commitment to protecting human rights, which we identify through our salient human rights assessment process. We serve on the Board of Directors of the Responsible Business Alliance (RBA), actively participate in several workgroups and use its Validated Audit Protocol to assess labor, health and safety, management systems, ethics and environmental issues. In addition, we assist suppliers with

priority non-conformances by offering RBA e-learning modules, developing corrective action plans and monitoring progress.

Recommendation

Improving Diversity and Inclusion

Ford response

Leveraging the diversity of our people makes our business stronger and helps us reflect the communities in which we live and work. We have embedded diversity and inclusion in our People Strategy to create a culture that enables us to attract, retain and develop top talent. We have many teams and Employee Resource Groups focused on inclusion, supported by partnerships fostering diversity among suppliers, communities and customers. Jim Hackett, our President and Chief Executive Officer (CEO), committed to the CEO Action for Diversity & Inclusion™ pledge and we became a signatory to the United Nations Women's Empowerment Principles.

For the second year in a row, Ford was included in the 2020 GEI in recognition of its commitment to transparent gender reporting and workplace equality. And to support our aspiration to become the world's most trusted company, we published our GEI survey responses along with our Sustainability Report. We also received a perfect score of 100 on the Disability Equality Index Best Places to Work list. For more details, see the 2019 Diversity Performance Metrics report section.

Recommendation

Maintaining an Adaptive Workforce Equipped to Manufacture New Vehicle Types

Ford response

Helping employees stay up to speed with the latest technologies required by the automotive industry, we research new techniques, explore alternative digital strategies, and offer learning opportunities in the skills and capabilities required by the “Factory of Tomorrow.”



The renovated UAW-Ford Technical Training Center reopened in 2019 with new courses in Advanced Manufacturing Engineering and emerging skills like drone piloting, 3D printing, robotics and networking technology.

We are also committed to identifying and engaging with the next generation by working with high schools, colleges and universities. Students can undertake practical assignments at Ford, while research can be directed toward the anticipated needs of our business.

Recommendation

Identifying and Incorporating ESG Risks into Our Overall Risk Management

Ford response

With a heightened focus on ESG-related reporting, we are continuously working toward improving our transparency through the disclosure of all ESG risk factors. Among the risk factors included in our Annual Report on Form 10-K for the year ended December 31, 2019, were specific ESG-related risks, including climate-related physical risk and employee recruitment and retention – ensuring that we attract and retain talented and diverse employees.

OUR GOALS AND PROGRESS

Our goals, commitments and targets are aligned with our material issues. Below, we have summarized our progress and provided examples of how we're making a positive contribution to society as we work toward them. All our initiatives are in progress.

ASPIRATION	TOPIC AREA	GOALS	2019/2020 PROGRESS EXAMPLES
CLIMATE CHANGE/ENERGY/AIR/MATERIALS			
<p>Climate Change: We aspire to achieve carbon neutrality by 2050.</p> <p>Energy: We will use 100 percent locally sourced renewable energy for all manufacturing plants globally by 2035.</p> <p>Air: We aspire to achieve zero air emissions from our facilities.</p> <p>Materials: We aspire to only use recycled and renewable plastics in our vehicles globally.</p>	<u>Reducing Our Vehicle Footprint</u>	<p>Improve fuel economy across our global vehicle lineup, consistent with regulatory requirements and climate stabilization</p> <p>Continue our lightweighting plans</p> <p>Offer alternative fuel vehicles</p> <p>Continue to develop and implement our Sustainable Materials Strategy</p>	<p>We aspire to achieve carbon neutrality by 2050</p> <p>Combined car and truck fuel economy fell by 0.3 percent in 2019</p> <p>Award-winning EcoBoost® and EcoBlue technology now used in 8 million engines worldwide</p> <p><u>CDP Climate Change questionnaire</u></p> <p>We have published our second <u>Climate Change Scenario Report</u></p> <p>By switching to aluminum, we reduced the weight of the 2018 Lincoln Navigator by 200 pounds, the 2018 Ford Expedition by 300 pounds and the 2017 Ford Super Duty by 350 pounds</p> <p>We are incorporating graphene, a strong but light carbon-based material, to all our vehicles, starting with the Ford F-150 and Mustang</p> <p>We offer several models powered by ethanol and biodiesel</p> <p>A wide range of commercial vehicles and certain passenger vehicles run on compressed natural gas (CNG) and liquefied petroleum gas (LPG)</p> <p>We have set an interim goal of 20 percent sustainable material by 2025</p> <p>Since 2000, we have used 12 industry- and world-first plant-based materials in our production vehicles</p> <p>We are researching the possible use of tomato skin, bamboo, agave fiber, dandelion roots, algae and coffee chaff</p>
	<u>Sustainable Operations</u>	<p>Reduce global facility CO₂ emissions by 18 percent (2019–2023)</p> <p>Achieve 32 percent renewable energy by 2023 and 100 percent locally sourced renewable energy by 2035</p> <p>Air emissions reductions other than CO₂</p>	<p>We aspire to achieve carbon neutrality by 2050</p> <p>We have set a goal that exceeds the requirement of the IEA ETP 2017 Beyond 2°C Scenario pathway for Ford's manufacturing operations</p> <p><u>CDP Climate Change questionnaire</u></p> <p>Our Dearborn Truck Plant, Michigan Assembly Plant and several new buildings on our Research and Engineering and Corktown campuses will be powered by 100 percent locally sourced renewable energy by January 2021</p> <p>We are working to reduce emissions of non-CO₂ pollutants, in accordance with increasingly stringent standards around the world</p> <p>In February 2019, we announced the <u>largest renewable energy procurement</u> in our history through a collaboration with DTE Energy.</p>
	<u>Minimizing Our Supply Chain Impact</u>	<p>Engage with our supply chain to understand its carbon and water footprints</p> <p>Work with selected suppliers to reduce our collective environmental footprint</p>	<p>We surveyed 253 production suppliers (83 percent) using the CDP Supply Chain program's Climate Change questionnaire, and 162 suppliers (78 percent) responded to the <u>CDP Water questionnaire</u></p> <p>We aspire to achieve carbon neutrality by 2050</p> <p>We shared best practices examples with 56 key Tier 1 suppliers through the Partnership for A Cleaner Environment (PACE) and introduced a streamlined version, FastPACE, in Asia Pacific. Suppliers in the PACE program expect to save 680,000 metric tons of CO₂ over the next five years</p>

ASPIRATION	TOPIC AREA	GOALS	2019/2020 PROGRESS EXAMPLES
ACCESS			
We aspire to drive human progress by providing mobility and accessibility for all.	<u>Safety and Quality</u>	Design and manufacture vehicles that offer innovative driver assist technologies, and meet or exceed all regulatory requirements for safety and quality	Ford Co-Pilot360™ technology is being rolled out in key global markets For the 2019 model year, 10 Ford and three Lincoln nameplates received 5-Star Overall Vehicle Scores in the U.S. New Car Assessment Program (NCAP), and five models earned 5-star ratings by Euro NCAP in 2019 Ford results in the Vehicle Dependability Study have improved every year for the past four years, and our score in the Automotive Performance, Execution and Layout (APEAL) study has improved every year since 2014. Five 2019 Ford Motor Company models won awards in their category In 2019, Ford was one of five U.S. brands performing above the industry average in the Initial Quality Study. With Ford ranked fourth (2018: fifth) and Lincoln fifth (2018: seventh), this was the first time both brands have made the top five
		Play a leading role in vehicle safety and driver assist research and innovation	We are a founding member of the American Center for Mobility We are a partner in Automated Driving Applications and Technologies (AdaptiVe), Europe's largest research project on automated driving We have established partnerships with a range of universities, including Purdue University and Virginia Tech
		Provide information and educational programs to promote safe driving practices	Ford Driving Skills for Life reached 40,000 participants in 2019 and is currently active in 31 countries
	<u>Health and Safety</u>	Fatalities target is always zero	We did not have any fatal incidents in 2019 to report. This is a significant achievement for us because unfortunately, we have experienced fatalities in previous years
		Zero serious injuries, attain industry competitive lost-time and drive continuous improvement	Our lost-time case rate (LTCR) decreased from 0.41 to 0.39.
		Maintain or improve employee personal health and well-being	We continue to provide programs and services that help employees achieve health and well-being and make informed choices
	<u>Mobility Solutions</u>	Deliver our Ford Smart Mobility plan, with a focus on emerging opportunities in mobility	We acquired Quantum Signal (robotics and sensing technology) We are developing the Transportation Mobility Cloud, an open software platform allowing vehicles and infrastructure to communicate Testing self-driving vehicle technology in partnership with Argo AI continues We are expanding the Spin e-scooter business to Europe
	<u>Electrification</u>	Pursue our electrification strategy	We are investing more than \$11.5 billion in electrification globally over five years The all-electric Mustang Mach-E is being launched in the United States and Europe Other zero-emission vehicles include Ford Escape and Lincoln Aviator plug-in hybrids, the Territory EV in China and an all-electric Transit in Europe and North America for the 2022 model year
HUMAN RIGHTS			
We aspire to responsibly source all raw materials used within our vehicles globally.	<u>Respecting Human Rights</u>	Ensure everything we make or that others make for us is consistent with local laws and our own commitment to respecting human rights	We conducted a <u>formal assessment</u> of our salient human rights issues, in line with the UNGPRF We developed and started to roll out human rights action plans We have conducted around 50 human rights assessments against our <u>Policy Letter 24</u> since 2004
		Help suppliers build their capacity to manage supply chain sustainability issues	We determined 22 high-priority countries, based on an annual human rights risk analysis We conducted 15 training sessions on human rights, working conditions, business ethics and the environment We aligned 100 percent of our 79 Aligned Business Framework (ABF) production suppliers' codes of conduct with our Policy Letter 24
		Assess Tier 1 suppliers' compliance with local laws and Ford's supply chain sustainability expectations	We completed 1,186 supplier audits and 1,612 follow-up assessments to date We conducted 23 new audits in 2019 using the RBA Validated Assessment Process methodology (100 percent certified by the RBA)
	<u>Minimizing Our Supply Chain Impact</u>	Improve the transparency of mineral sourcing and increase the capacity of conflict-free smelters	We achieved a 100 percent response rate from in-scope suppliers for conflict minerals 3TG reporting We implemented a <u>responsible sourcing of raw materials</u> strategy
		Continue to purchase from veteran-, minority- and women-owned businesses	We purchased goods and services worth \$8.49 billion from minority-owned suppliers, \$1.53 billion from women-owned businesses, \$0.179 billion from veteran-owned companies and \$5.22 billion from small businesses

ASPIRATION	TOPIC AREA	GOALS	2019/2020 PROGRESS EXAMPLES
WASTE			
We will achieve true zero waste to landfill across our operations. We will eliminate single-use plastics from our operations by 2030.	<u>Sustainable Operations</u>	Reduce waste to landfill by 21 percent when measured in kg per unit	We have 102 zero waste to landfill sites, up from 88 We have recorded a 21 percent reduction in waste to landfill per vehicle over the period 2018–2020
		Reduce general trash by 15 percent when measured in kg per unit	We are standardizing the tracking and sorting of waste to increase recycling and reuse
		Improve waste avoidance by 10 percent when measured in kg per unit	We are implementing technologies and programs that minimize waste We are working with suppliers to increase the use of eco-friendly packaging
		Eliminate single-use plastics by 2030	We have established an interim target of 20 percent renewable and recycled plastics by 2025
WATER			
We will make zero water withdrawals for manufacturing processes. We will use freshwater for human consumption only.	<u>Sustainable Operations</u>	Save an additional 30 percent of the water from our manufacturing (2015–2020)	We have reduced our absolute operational water use by 13 percent since 2018 and by 70 percent since 2000 (saving more than 11 billion gallons)
		Use freshwater sources for human consumption only	We have installed more non-water-based technologies and used alternative sources such as other companies' treated wastewater
		Make zero water withdrawals for manufacturing processes	We are incorporating more water processes and technologies in our assembly plants, including water reuse and recycling systems
	<u>Minimizing Our Supply Chain Impact</u>	Work with selected suppliers to reduce our collective environmental footprint	We have shared best practice examples with 56 key Tier 1 suppliers through PACE, and introduced a streamlined version, FastPACE, in Asia Pacific. PACE participants expect to save an estimated 470 million gallons of water in their operations from 2019 to 2030
DIVERSITY			
We aspire to become the most inclusive and diverse global company.	<u>Diversity and Inclusion</u>	Integrate diversity and inclusion across the enterprise	We firmly embedded diversity and inclusion in our People Strategy and Culture Operating System to support our overall corporate strategy
		Create an environment of inclusion	We signed the CEO Action for Diversity & Inclusion™ pledge in 2018 We hosted the Check Your Blind Spots Tour in July 2019 We became a signatory to the United Nations Women's Empowerment Principles in February 2020 We led the global Day of Understanding across all Ford markets in March 2020 We used Employee Resource Groups (ERGs) to serve their membership, the business, customers and communities around the globe We launched virtual Lunch Series around belonging and inclusion
		Drive diversity and inclusion-focused learning across the enterprise to reduce unconscious bias	20,000 salaried employees globally attended facilitated or online unconscious bias learning sessions
		Promote gender parity and equal pay	For the second year in a row, Ford was included in the Bloomberg GEI in 2020 Our Global Salaried Gender Pay Ratio is 98.2 percent ¹

¹ A peer group consists of employees in the same region, salary grade and skill team, when available.

CREATING VALUE AT FORD

OUR INPUTS



Human
190,433 people employed
10,921 dealers
Around 1,200 Tier 1 suppliers



Social and Relationship
Provide communities access to opportunities for improvement for more than 70 years
Community partnerships with non-profits and dealers in more than 50 countries



Financial
\$156 billion in revenue generated in 2019
Investing more than \$11.5 billion in electrified vehicles through 2022



Manufactured
55 manufacturing and assembly plants
8 regional engineering, R&D centers
Investing more than \$4 billion through 2023 on launching a self-driving service



Intellectual
4,884 global utility patents issued
Over 100 years as pioneers in the auto industry – and 20 years' experience in EVs



Natural
12.97 billion kWh of energy used
19.4 million gallons of water used for manufacturing processes (19 percent from groundwater)

OUR BUSINESS



Our Purpose
To drive human progress through freedom of movement



Our Aims
• Trusted company
• Driving human progress
• Positive impact



Our Governance
Solid governance to manage sustainability across our business



VALUE CREATED

(OUTPUTS AND OUTCOMES)



Employees
Employee salaries and benefits
Employee training and development



Customers
Financial assistance and deferred payments for customers impacted by COVID-19
5.38 million vehicles sold
Created the largest EV public charging network in the United States



Investors
\$2.6 billion as dividends to shareholders



Suppliers
More than \$15 billion spent from minority-, women- and veteran-owned companies and small businesses in 2019
Best practices cascaded through PACE program



Communities
Over \$2 billion invested in communities to date
\$10 million invested in Detroit over four years
Inaugural SHE-MOVES grant program, supporting social enterprises in India, Nigeria and South Africa



Society
\$740 million invested in Detroit's Michigan Central Station
Face shields, ventilators and respirators manufactured in response to COVID-19

GOVERNANCE

We believe that sound governance structures and policies are needed to govern our business, manage our performance and create value responsibly and ethically. These processes and systems serve as the foundation for delivering on our sustainability strategy and integrating ESG issues into our business decisions.

CORPORATE GOVERNANCE

While remaining a successful business, we want our operations and activities to have a positive impact on the world. Our integrated governance systems and processes help us build sustainability across our company.

As part of our efforts to remain successful and profitable, our business needs to be lean, fit and agile, so that we can capitalize on new opportunities in the future. That's where our workplace transformation comes in, reducing bureaucracy, building skills and adopting more efficient ways of working.

Our Board of Directors is guided by our Corporate Governance Principles, Code of Ethics and charters for each board committee. These are publicly available in the [Corporate Governance](#) section of our corporate website. Read more about corporate governance in our [Form 10-K report](#).



SUSTAINABILITY GOVERNANCE

We employ a variety of governance systems and processes to manage the different aspects of sustainability across our business, as summarized throughout this report.

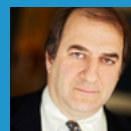
As outlined opposite, we have a number of management processes, systems and groups in place that are designed to help us improve our performance against our material and salient sustainability issues, from climate change and human rights to safety and quality, and take responsibility for the positive impact our activities have on society and the world around us.

TRANSPARENCY AND TRUST

We always keep ethics and compliance at the heart of our business practices, as we believe that trust in our brand is earned by acting with honesty, expertise and care.

Our Corporate Compliance, Ethics and Integrity Office provides training and communication tools to help our people comply with our policies and their legal obligations. They include a mobile app, *The Right Way*, that answers frequently asked questions and provides direct access to the Compliance, Ethics and Integrity Office.

The Right Way is available to our global workforce in several local languages, as well as our suppliers and other partners, helping them become more familiar with our policies and practices. The information is shared with other companies and groups as "open source" material.



“THE SUSTAINABILITY AND INNOVATION COMMITTEE IS AN IMPORTANT ELEMENT OF FORD'S GOVERNANCE STRUCTURE, PROVIDING ESSENTIAL OVERSIGHT OF ESG ISSUES AND ASSESSING HOW OUR INNOVATIONS SUPPORT OUR SUSTAINABILITY AGENDA.”

WILLIAM H. HELMAN, CHAIRMAN, SUSTAINABILITY AND INNOVATION COMMITTEE

Board Committees	Sustainability and Innovation Committee <ul style="list-style-type: none"> Meets up to three times a year Primary responsibility for assessing the company's progress on strategic economic, environmental and social issues as well as the degree to which sustainability principles have been integrated into the various skill teams (see the Committee's Charter) Evaluates and advises on innovations and technologies that improve our economic, environmental and social sustainability, enrich our customers' experiences, increase shareholder value and improve people's lives Reviews the summary Sustainability Report as well as any initiatives related to innovation Other Board Committees: Audit, Compensation, Nominating and Governance and Finance.
Executive Management	Vice President, Chief Sustainability, Environment and Safety Officer <ul style="list-style-type: none"> Primary responsibility for sustainability issues Oversees the Sustainability & Vehicle Environmental Matters group, the Environmental Quality Office, the Vehicle Homologation & Compliance group and the Automotive Safety Office Leads a multi-disciplinary senior-level team to oversee our actions in response to our climate change and sustainable mobility strategies Other executive and group vice presidents across our functional areas also have responsibility for sustainability-related issues.
Function Areas	Sustainability and Vehicle Environmental Matters <ul style="list-style-type: none"> Coordinates our companywide sustainability strategy and activities Leads our sustainability reporting and stakeholder engagement Collaborates with other functional areas and skill teams to integrate sustainability throughout the company



“ETHICS AND INTEGRITY ARE A BIG PART OF WHO WE ARE AS A COMPANY. WE STRIVE TO PROVIDE CLEAR POLICIES, EFFECTIVE COMMUNICATION AND ENGAGING TRAINING TO MAKE IT EASY FOR OUR PEOPLE TO DO THE RIGHT THING AND COMPLY WITH OUR POLICIES AND LEGAL OBLIGATIONS.”

BETH ROSE, CHIEF COMPLIANCE, ETHICS AND INTEGRITY OFFICER, AND ASSISTANT GENERAL COUNSEL

Ethics and Compliance Training

Our Policy Letters and Directives formally set out the expectations we have for our employees and others working on our behalf. The most important of these are contained within our [Code of Conduct Handbook](#), available to employees in 14 languages. These expectations are reinforced in mandatory online training courses, which are periodically refreshed and reviewed to ensure the content remains relevant and appropriate.

Reporting Violations

Our compliance program facilitates the confidential reporting of known or potential violations of the law or of our policies. Our people can report violations directly to Human Resources or the Compliance, Ethics and Integrity Office as well as the Office of General Counsel or the General Auditors' Office. Violations can also be reported using the SpeakUp reporting mechanism, telephone hotlines, websites or email, some of which allow for anonymous reporting.

Allegations are reviewed by a cross-functional committee, which oversees any investigations and subsequent corrective or disciplinary action.

Anti-Bribery and Anti-Corruption

Our many facilities around the world need to comply with a wide range of national laws and governmental enforcement practices with regard to bribery and corruption. We maintain the highest standards wherever we operate and do not allow bribery or corruption, even when it may be tolerated or condoned.

To ensure this, we have:

- Put clear anti-bribery and anti-corruption policies in place
- Established procedures for the mandatory reporting of suspected violations of laws or policies
- Included anti-bribery and anti-corruption elements in our Global Terms and Conditions and other contracts
- Assessed our operations for bribery and corruption-related risks
- Trained individuals who may encounter bribery or corruption issues in their work

PUBLIC POLICY

National governments make decisions that impact our activities every day. As a global business, we acknowledge our responsibility to input into those decisions and use our influence to inform any subsequent policies.

Supporting the Policy-Making Process

We participate openly in the political process, supporting the development of local, regional, national and international policies that affect our company, customers and communities. We share our expertise and add our perspective through our [Government Affairs](#) offices around the world.

To leverage our resources more effectively on priority issues, we work with external partners through a wide range of coalitions, industry groups and trade associations. This helps us develop and promote policies that could benefit our company, our industry and society as a whole.

When our views do not align with those of the associations to which we belong, we reserve the right to make our own position clear.

Policy Letters and Directives

We use Policy Letters and Directives to establish a framework of broad, basic principles within which we conduct our business across the world. These materials provide more in-depth information on certain topics and specific business segments.

HARASSMENT AND DISCRIMINATION

Everyone has the right to feel safe, and to be themselves, at work, so we identify harassment and discrimination as a salient human rights issue (see page 22).

 [Harassment and discrimination is a salient human rights issue for Ford.](#)

We don't allow any form of harassment, prejudice, intimidation or violence, including, but not limited to, being based on gender, gender identity, race, color, religion, age, national origin, sexual orientation, disability or veteran status.

We created a [Culture Operating System](#) that proactively measures the transformation of Ford to enhance a culture of mutual respect and acceptance to help eliminate harassment and discrimination. This system is being implemented globally and driving a shared culture that is aligned with our Truths. As part of this implementation, we provide access to necessary accommodations and basic services in the workplace, like assistive technology and spaces like breastfeeding rooms and changing areas. We will complete mandatory anti-harassment training of all global employees by the end of 2020.

In addition, we are implementing several actions to enhance a culture around mutual respect in all our manufacturing facilities globally. These include:

- Our Culture Playbook, which includes training on root cause analysis and leadership engagement
- Sensitivity training for vehicle launch teams
- Compliance with U.S. state-specific mandated anti-harassment training
- The governance of harassment and discrimination, including quarterly reporting and reviews with Ford's Executive Leadership Team and Board of Directors

[Find out how Ford is creating an inclusive culture](#)



“WE'RE WORKING TOGETHER TO UNLEASH THE FULL POTENTIAL OF OUR WORKFORCE IN MANUFACTURING AND CREATING A WORK ENVIRONMENT THAT IS SAFE AND INCLUSIVE FOR EVERYONE. WE DO NOT TOLERATE ANY FORM OF PREJUDICE OR INTIMIDATION AND, TO FOSTER A CULTURE FOUNDED ON RESPECT AND ACCEPTANCE, WE ARE TEACHING AND LEARNING EVERY DAY.”

LILIANA RAMIREZ, GLOBAL DIRECTOR, LEAN MANUFACTURING AND CULTURE

PUTTING PEOPLE FIRST

People drive our success: our skilled employees, our dedicated dealers, suppliers and partners, our local communities and our valued customers. They are front and center of everything we do to drive human progress.

“THE HEART OF FORD'S GLOBAL COMMUNITY WORK IS MAKING PEOPLE'S LIVES BETTER. OUR EMPLOYEES ARE THE BACKBONE OF THIS WORK, AND THEIR VALUES IN GIVING BACK AND CARING FOR OTHERS DRIVE THIS MISSION. SUPPORTING THE COMMUNITIES WHERE WE LIVE AND WORK THROUGH MENTORSHIP, SERVICE AND PARTNERSHIP PROGRAMS IS WHAT MAKES FORD A SPECIAL FAMILY COMPANY.”

MARY CULLER

PRESIDENT, FORD FUND
DETROIT DEVELOPMENT DIRECTOR
CHIEF OF STAFF, OFFICE OF THE EXECUTIVE CHAIRMAN

We're transforming our culture.

Our people's passion and dedication will build a better tomorrow for everyone, so we're focused on creating an adaptive, agile workforce. Through respect, inclusion and equality, everyone will feel empowered to fulfill their potential.

We're changing the way we work.

We're redesigning the way we work to gain new capabilities, improve efficiency and keep people at the heart of everything we do.

We respect human rights.

We address the issues with the most impact on the thousands of people touched by our business.

We're focused on health and safety.

Keeping our employees safe at work, even during the COVID-19 crisis, and providing customers with safe, high-quality vehicles are both priorities for us.

We're building a customer-focused business.

By consistently behaving with integrity, expertise and empathy, we will earn customers' trust. This is critical as we work toward becoming the world's most trusted company.

We're committed to being a good neighbor.

We want to have a positive impact on the communities where we live and work, from a healthy environment to building long-lasting partnerships that address key challenges.

OUR ASPIRATIONAL GOALS



We aspire to become the most inclusive and diverse global company.



We aspire to responsibly source all raw materials used within our vehicles globally.

Sustainable Development Goals

Through our work in putting people first, we are contributing to the following United Nations Sustainable Development Goals:



EMPOWERING OUR PEOPLE

Our culture – what it's like to work at Ford – is built on the strength of our history and transformed by our passion and ambition to create tomorrow. We believe in creating experiences for our employees, customers, partners and communities that empower people to make the world a better place. We embrace diversity and inclusion, and create a culture that enables us to attract, retain and develop top talent.

Our People Strategy
Through our holistic approach, we will:



Use continuous learning and adaptive capabilities to deliver business value and reinforce our culture



Create a more fit and flexible organization through collaborative networks and processes that enable agility and customer centricity



Build an inclusive, diverse and adaptive learning community, drive accountability and deliver value every day

Creating a Winning Culture

Put simply, our culture is how it feels to work at Ford. It encompasses our daily interactions and experiences, our beliefs, the spaces in which we work and the way we act.

Our culture is positioned to deliver today's results. To deliver better results tomorrow, we know that we must shift some aspects of our culture to create new experiences and shape new beliefs. Culture transformation takes time but we continued our journey toward a winning, customer-centered culture during 2019 by recognizing how our shared values and beliefs impact our day-to-day interactions and business results.

We have launched a Culture Operating System that enables us to work quickly across functions on key experiences, while shared governance and metrics help us align what “success” looks like.

CHANGING THE WAY WE WORK

Driven by Ford Land, we're making a positive impact on workplace culture and how people interact around the world. More than just managing properties, we are delivering experiential workplaces where team members will innovate, collaborate and thrive as well as being flexible around our employees' preference to work remotely. We're using space differently, tailored to each location, from our new global technology and product development center in Chennai, India, to a new administrative facility in São Paulo, Brazil. These sites will act as magnets for attracting and retaining the best people, as we co-create a new future.

One example is D-Ford, our new human-centered design group, which will help everyone learn and use new tools to make us better at how we think and what we do. We've established four D-Ford labs – in Detroit, London, Palo Alto and Shanghai – to better understand and satisfy our customers.



I COME TO WORK EVERY DAY EXCITED TO COLLABORATE AND INNOVATE WITH MY AMAZING TEAM. FORD PROVIDES THE TOOLS, THE SPACE AND THE FREEDOM TO DO JUST THAT. WE ARE CHANGING THE WAY WE WORK BY PROVIDING MORE FLEXIBILITY AND ENCOURAGING EACH OTHER TO DO OUR BEST.”

LAURA CASTRO, CHIEF FINANCIAL OFFICER, MEXICO, CARIBBEAN AND CENTRAL AMERICA

Our Culture Operating System

Getting fit and capitalizing on new opportunities is critical to our future. We're making our business more agile and competitive by updating our policies and procedures to reduce bureaucracy; redesigning the way we work to encourage collaboration and productivity; building the skills and capabilities of our people; and acting with integrity at all times to build trust.

Strategy, Trust and Brand: Our strategy, brand and culture must be aligned to achieve our aspiration to be the world's most trusted company.

Agile and Design Thinking: Innovative, human-centered ways of working will be crucial to keeping up with this technology-driven business environment.

Workplace Experience: Transforming our workplaces requires integration, interaction, collaborative technology and flexible working.

Diversity and Inclusion: An inclusive and diverse workplace is critical to executing our corporate strategy.

Policies and Processes: We are co-creating solutions with employees, focusing on the language we use as well as how our employees experience those policies.

Organizational Fitness and Workforce Planning: To manage organizational health and deliver against our priorities, we are redesigning how we work to be more efficient, empower employees and address bureaucracy.

Communication: We undertake consistent, employee-centered communication and capture employee sentiment as a measure of our culture transformation.

Our Truths: Our shared beliefs for how we live, act and communicate provide clarity of behavior and are integrated in the way we attract, onboard and develop talent.



Responding to COVID-19

To support our workforce, we introduced Working Remotely resources to ramp up from approximately 1,000 employees working from home to over 115,000 virtual workers – all within one week. As our workforce embraced this new way of working, we implemented two programs to support their physical, mental and emotional health and well-being. Ford@Home communicates weekly key resources to help employees take care of themselves and others, stay connected to their teams, and get work done.

Our Compassion Protocol focuses on leading with empathy and compassion when caring for our Ford family in these challenging times.

We developed return-to-work protocols for our manufacturing and non-manufacturing operations globally, with amended safety requirements and restructured roles. These comprehensive “playbooks” are being applied consistently at all our locations to ensure the safety of all employees.

[Read more about Ford's response to COVID-19 and how we're restarting operations](#)

Employee Engagement and Satisfaction

Effective communication is vital to our ongoing success, so we use many different channels to drive dialogue with our employees. These include our Intranet site and website; corporate publications and reports; social media; Jim Hackett's video blog; webcasts and executive Q&A sessions with senior management; labor-management committee meetings; Global “Town Huddle” meetings; and Employee Resource Group initiatives.

We're engaging at all levels of the business on the transformation of our culture. For example:

- The 32 employees in our Culture Cabinet were nominated to influence and energize others to help shape our culture transformation. Diverse in terms of demography, discipline and market, the group represents the employee voice to senior leaders, providing insight into what's working and what needs to change
- Our Culture Street Team is a global network of about 5,000 volunteers who develop and lead initiatives to promote culture change across the business

190,433

GLOBAL WORKFORCE AT END OF 2019

8,531

ANNUAL DECREASE IN EMPLOYEES IN 2019

32

EMPLOYEES IN OUR CULTURE CABINET WERE NOMINATED TO INFLUENCE AND ENERGIZE OTHERS

5,000

VOLUNTEERS MAKE UP OUR CULTURE STREET TEAM

Understanding the Employee Experience

Ford has completely revamped its approach to understanding and acting on employee sentiment. Traditionally, the company relied on broad, occasional surveys to know how employees were thinking and feeling. After extensive research, it became clear that more focused, more frequent and more comprehensive data was needed.

As a result, Ford developed a new ask/listen/observe framework – a comprehensive and consistent methodology for studying employee sentiment in near real-time. The framework – the recipient of an i4cp 2020 Next Practice Award – incorporates both active and passive measurements related to employee experience:



“WE ARE CREATING GLOBAL CENTERS OF EXCELLENCE WHERE TALENT CAN THRIVE. THESE WILL BE INVITING PLACES FOR EMPLOYEES, PARTNERS, BUSINESSES AND ENTREPRENEURS TO WORK WITH US TO CREATE TOMORROW, TOGETHER.”

DAVE DUBENSKY, CHAIRMAN AND CEO, FORD LAND DEVELOPMENT

- **Asking** for employee reactions on a particular topic – for example through surveys, polls, focus groups or interviews
- **Listening** to what employees naturally say about a topic in public forums, whether internal (e.g., @FordOnline article comments) or external (e.g., Glassdoor reviews)
- **Observing** behaviors, such as employees attending events, viewing announcements, watching videos and downloading materials related to the topic being studied

Most recently, the framework was used to study employee sentiment related to the COVID-19 outbreak. An enterprise poll collected perceptions, reactions, feelings and needs from thousands of employees each week. Ask/listen/observe data was continuously reviewed by Ford decision makers and content creators, then used to target resources and shape new programs.

Ford's ask/listen/observe framework allows the company to better, and more quickly, understand employee needs – and to create more impactful solutions that meet those needs. This approach will continue to be developed, harnessing employee feedback along the way.

DIVERSITY AND INCLUSION

We aspire to become the most inclusive and diverse global company, and invite everyone to bring their whole selves – all their passion, inspiration, integrity and uniqueness – into work each day.



OUR GOAL

We aspire to become the most inclusive and diverse global company.

Our Approach to Diversity and Inclusion

The business case for having an inclusive and diverse team is irrefutable. Diversity and inclusion (D&I) is firmly anchored into our plan for Creating Tomorrow, Together.



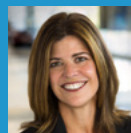
Creating the Campus of the Future

Illustrating our human-centered design and cross-functional approach, we're transforming our Research and Engineering Center in Dearborn, Michigan, into a high-tech campus that will help drive innovation and attract world-class talent.

A new central building – the future home to our product development community – has been designed to optimize the way we work. Informed by employee feedback, human behavior and 4D design principles, which take into account changes over time, the flexible space will incorporate a mix of personal, collaborative and communal zones.

The site – based on the principles of integration, interaction, co-location and flexibility – will showcase new mobility solutions such as electrified bikes, scooters and shuttles, and comprise a wealth of sustainability features.

Together with the restoration of Michigan Central Station in Detroit's Corktown neighborhood, as well as our robotics research lab at the University of Michigan in Ann Arbor, we're creating an innovation corridor where innovators can develop and test future mobility solutions.



“DIVERSITY AND INCLUSION IS NOT A PROGRAM OR AN INITIATIVE. IT'S ABOUT PEOPLE. THERE'S ONE BASIC HUMAN NEED COMMON TO EVERY SINGLE PERSON ON THE PLANET: THAT'S THE NEED TO BELONG. WE CAN'T BE THE WORLD'S MOST TRUSTED COMPANY UNLESS EVERYONE SUPPORTING FORD CAN BE THEMSELVES AND DO THEIR BEST WORK.”

LORI COSTEW, CHIEF DIVERSITY OFFICER

UN Women's Empowerment Principles

Jim Hackett, our President and CEO, signed the UN Women's Empowerment Principles on behalf of Ford Motor Company in February 2020. In doing so, we have proudly committed to a set of principles to empower women around the world in the workplace, marketplace and communities.



By fully leveraging the diversity of our global team and ensuring a workplace in which everyone is included, we can make our business stronger, and reflect the communities in which we live and work. This is critical for attracting and retaining top talent; people want to come work for a company where they have an opportunity to thrive.

Social Injustice

Society and corporations cannot stay silent to social injustice.

There's no doubt that the weight of these challenges disproportionately falls on the African American community. We have seen this disparity among Ford team members affected by COVID-19, and the legacy of economic disparities in our own home city of Detroit.

This is our moment to lead from the front and fully commit to creating the fair, just and inclusive culture that all team members deserve. There are no easy fixes to longstanding systemic issues. However, we are committed to listening, learning and co-creating solutions to make us a better company.

Creating a Sense of Belonging

In July 2019, our World Headquarters hosted the Check Your Blind Spots Tour, in support of the CEO Action for Diversity & Inclusion™ pledge. This event raised awareness of unconscious bias and offered a unique, technology-enabled multimedia experience, centered on uncovering “blind spots” that influence everyday decision making.

In partnership with the CEO Action pledge, Ford employees celebrated the Day of Understanding in March 2020, to advance inclusion across Ford. This energetic and inspiring day focused on creating awareness and a sense of belonging for all employees through dialogue, learning and connecting. As part of the event, Lori Costew, our Chief Diversity Officer, asked every salaried employee to identify one behavioral shift they can make to create a more inclusive workplace.

[Learn more about Ford's diversity and inclusion actions online](#)

[Watch a short video about the Day of Understanding](#)

Creative Ways to Promote Diversity

Ford's commitment to cultural diversity shines through in this year's advertising campaign for the all-new 2020 Escape. The campaign, [Built Phenomenally](#), showcases remarkable women in the entertainment industry as well as at Ford. It also spotlights our commitment to the [Free the Work](#) initiative we co-founded, which encourages companies to be more inclusive in the bidding process for creative talent.

Rankings and Ratings Highlights



For the second year in a row, Ford was included in the 2020 GEI in recognition of its commitment to transparent gender reporting and workplace equality. And to support our aspiration to become the world's most trusted company, we published our GEI survey responses along with our Sustainability Report.



2019 Disability Equality Index (DEI): For the first time, Ford received a perfect score of 100 on the DEI Best Places to Work list, a leading disability inclusion assessment tool. Our score demonstrates that we follow many aspects of disability inclusion best practices.

Ford has received further recognition from:



“ I AM HONORED AND MOTIVATED TO BE THE EXECUTIVE CHAMPION FOR WOMEN OF FORD. OUR GOAL IS FOR FORD TO BE A LEADING COMPANY OF CHOICE FOR EMPOWERMENT, INCLUSION AND PROFESSIONAL DEVELOPMENT FOR ALL WOMEN – AT ALL LEVELS. WE HAVE MORE THAN 10,000 MEMBERS AROUND THE GLOBE AND TOGETHER, WE ARE COMMITTED TO DRIVING CHANGE IN THE WORKFORCE.”

LISA DRAKE, GLOBAL VP OF PURCHASING AND CHIEF OPERATING OFFICER OF FORD NORTH AMERICA

2019 DIVERSITY PERFORMANCE

OF OUR GLOBAL SALARIED WORKFORCE:

27.5%

ARE FEMALE

22.2%

OF MANAGERS² ARE FEMALE

OF OUR 14 BOARD DIRECTORS:

3

ARE WOMEN

2

IDENTIFY THEMSELVES AS MEMBERS OF MINORITY GROUPS

OF OUR U.S. EMPLOYEES (HOURLY AND SALARIED):

31.6%

ARE MEMBERS OF MINORITY GROUPS

24.3%

ARE FEMALE

OF OUR 39 CORPORATE OFFICERS:

6

ARE WOMEN

8

IDENTIFY THEMSELVES AS MEMBERS OF MINORITY GROUPS

Employee Resource Groups

One of the best examples of embedding a sense of belonging into everyday life at Ford is our network of Employee Resource Groups (ERGs) – organizations of employees who share characteristics or life experiences. Our ERGs drive professional development, host professional, educational and cultural events, support recruitment and community outreach, and help advance business goals.

For more than two decades, Ford's ERGs have provided support, outreach, mentoring and development to all employees, as well as providing critical input into the business. ERGs are sponsored by our senior leaders and are open to all our employees.

We currently have 11 ERGs for a range of ethnicities, women, the LGBTQ+ community, employees of faith, disabled employees, veterans and employees new in tenure.

[Watch a short video about our ERG groups](#)

Global Salaried Gender Pay Ratio

Ford's Global Salaried Gender Pay Ratio, defined as the weighted average ratio of average female salaries to average male salaries within peer groups¹ worldwide, is 98.2 percent.

While this ratio provides a rough measure of pay equity, it does not account for individual circumstances such as job titles, education and experience. Such factors may explain much of the difference between the female and male averages.

We are interested in providing transparency on how well we are doing, as well as reaffirming our long-term commitment to fairly compensating all our employees.

Women of Ford Celebrate International Women's Day

The theme of the International Women's Day 2020 campaign, #EachforEqual, focuses on the idea that by challenging stereotypes, fighting bias, broadening perceptions and celebrating women's achievements, we can all support gender equality.

On March 9, 2020, our Professional Women's Network ERG hosted its seventh annual International Women's Day event. Its three main elements were:

- A rebranding of the group to become Women of Ford
- President and CEO Jim Hackett sharing his views on gender equality
- A moderated panel with the female leaders at Ford who were featured in the book *The Road to the Top is Not on the Map*

The Women of Ford and its member chapters are driving change on several key strategic imperatives: increasing the ratio of women in the company, becoming an employer of choice for women, and enhancing global communications in an effort to create a community of male and female advocates.

Attendees were also able to browse a photo gallery of female Ford employees, called Women Behind the Blue Oval. One of them, Dr. Cynthia Flanigan, is featured in the New Power Suit campaign, which celebrates women making an impact within and outside of the automotive industry.



¹ A peer group consists of employees in the same region, salary grade and skill team, when available.

² Middle management and above.

BUILDING AN ADAPTIVE WORKFORCE

Our success depends on our ability to attract, engage and retain a diverse employee population, and help keep pace with a rapidly evolving world through continuous, agile learning.

Attraction and Retention

Attracting Tomorrow's Talent

Our research shows that employees choose Ford because of its rich history, reputation and brand values, career development and training opportunities, and commitment to D&I. In the competition for talent, creative recruiting methods are vital. Our strategy includes working alongside professional organizations, colleges and universities (including historically black colleges and universities), engaging with local community partners and connecting with the next generation of creators and innovators using social media.

Supporting the LGBTQ+ Community

We support Fair and Equal Michigan's efforts to initiate legislation amending the state's civil rights law to support the LGBTQ+ community and protect against discrimination.



“AT FORD, WE'RE COMMITTED TO CREATING A SAFE AND INCLUSIVE WORKING

ENVIRONMENT THAT REFLECTS THE COMMUNITIES IN WHICH WE LIVE AND WORK. THAT'S WHY WE SUPPORT THESE EFFORTS TO AMEND THE ELLIOTT-LARSEN CIVIL RIGHTS ACT TO INCLUDE LGBTQ+ PROTECTIONS GIVING THE STATE OF MICHIGAN THE ABILITY TO PROVIDE EQUAL RIGHTS TO ALL RESIDENTS AND ATTRACT NEW RESIDENTS.”

BILL PETERS, GLOBE CHAIRPERSON



Celebrating Diversity and Inclusion in Latin America

In 2019, Brazil celebrated its first D&I Week with speakers and events all centered on the themes of addressing unconscious bias and Brazil's history of diversity.

Meanwhile in Mexico, we celebrate Pride Month every year and organize a Diversity Fest for all Ford employees across the country. This national event sees each plant taking charge of one of the five pillars: LGBTQ+, generations, disabilities, multicultural, gender.

Our FordWorks inclusive hiring program helps us deliver on-the-job training and employment opportunities to neurodiverse employees. Equitable pay and the continual development of FordWorks employees are core values of the program.

Keeping the Best Onboard

After identifying and hiring the right people, a strong onboarding experience is essential. In the United States, for example, we have two programs that equip new employees for success:

- Get Started provides 30 days of support services and resources, helping new starters navigate the essentials of early onboarding

- An extended program during the first year of employment provides new employees with a range of engagement opportunities, including corporate and skill team orientations, presentations, question-and-answer sessions with leaders and an internal social media platform

Strong policies help Ford people balance their work and personal lives and support them during key moments. U.S. salaried employees, new mothers and fathers, and adoptive parents are eligible for eight weeks of paid parental leave, in addition to six to eight weeks for the birth mother. New parents are also eligible to transition back to work part-time at full-time pay. These policy changes enhance our ability to attract and retain top talent and increase employee morale.

Our Re-Entry Program

Ford's Re-Entry Program is designed to recruit those who have spent time out of the corporate world, primarily due to raising families or serving in the military. Successful applicants are offered full-time positions and supported to reintegrate into the workforce. The program helps talented people with a diverse range of skills, experiences and backgrounds be successful at Ford, driving productivity, innovation and creativity across the business.

IN THE U.K., WE HAVE EXTENDED OUR MATERNITY WORKSHOP PROGRAM, COVERING FLEXIBLE WORK OPTIONS, STATUTORY ENTITLEMENTS AND WELL-BEING, TO INCLUDE PATERNITY WORKSHOPS.

[Watch a short video about our Re-Entry program](#)

Learning and Development

Developing our people is critical to our future success as well as ensuring employee satisfaction. That's why we commit significant resources to providing employees with insight into organizational skill needs, developing learning solutions to address those needs and enabling our people to apply those abilities to improve performance.

Ford Ranked as Student Employer of Choice

We are proud to have been listed as an attractive employer in Universum's 2019 Talent Survey, taken by more than 247,000 students. Ford was ranked 12th by engineering students and 47th among business students in the annual survey, which ranks characteristics such as work environment, innovation, future earnings and leadership in development.

Developing Our Leaders

A culture of learning is key. We continue to develop, deploy and evaluate programs that help leaders succeed in their roles, as well as developing and engaging their teams to deliver value and prepare for the future.

Our cohort-based leadership programs incorporate social and peer learning to provide intense development experiences applied to specific work-related challenges:

- **The Global Leadership Summit:** For executives and general managers responsible for global projects, departments and budgets
- **Global Executive Leadership:** Geared toward directors and senior managers associated with a region, but with responsibilities that extend globally
- **Experienced Leader Program:** Aimed at middle management, the program helps grow the capabilities of our skill team leaders running regional projects and functional departments
- **Leadership Academy:** A recommended curriculum path for new and experienced front-line leaders, which builds foundational leadership skills

Getting Fit for the Future

Keeping employees up to speed with the latest technologies required by the ever-evolving automotive industry is a major challenge. We support employee development by researching new techniques, adapting delivery and exploring alternative digital strategies, as well as providing continuous learning opportunities in the skills and capabilities required by what we call the Factory of Tomorrow.

Since the early 2000s, we have used extended reality to design new products and processes. Virtual reality provides global teams of operators and engineers with the opportunity to collaborate in immersive learning experiences, and allows them to design parts or equipment, or fix problems with layout, ergonomics and safety, before anything is manufactured. Factory employees are also developing analytic tools to monitor processes and improve safety, quality, delivery and cost.

After a \$35 million renovation, the UAW-Ford Technical Training Center reopened in 2019 with a revamped curriculum. As well as traditional skills like electrical wiring, pipefitting and welding, the center now offers courses in Advanced Manufacturing Engineering, with a focus on emerging skills like drone piloting, 3D printing, robotics and networking technology.

In addition, university research programs can be leveraged and directed toward the anticipated needs of our business and introduce us to top academics for potential employment.

INVESTING IN THE NEXT GENERATION

As the world evolves, we're working with high schools, colleges and universities, preparing students of all ages to meet the challenges ahead.

Our Support for STEAM Programs

We encourage young people to consider a career in industry by studying STEAM (science, technology, engineering, arts and math) subjects. This investment in STEAM



education programs is crucial if we're going to fill the gap between tomorrow's needs and the skills of today's workforce.

- After more than two decades of support of **FIRST®**, a robotics community that prepares young people for the future, Ford became a FIRST Strategic Partner to encourage learning among students of all ages. During 2019–2020, we supported more than 200 teams across all FIRST programs, and around 500 Ford employees volunteered as mentors to more than 60,000 students
- We work with **Primary Engineer**, a nonprofit that runs engineering-based courses for school children in the U.K. Ford supports the Structures and Mechanisms program with Basic Electrics, encouraging children to build a model vehicle from scratch. Every school is matched with a Ford engineer to bring a real-world context to the sessions. To date, 44 Ford volunteers have engaged 60 schools and more than 2,700 children
- To boost female representation in the tech industry, we support **Girls Who Code**, a nonprofit that equips young women with the skills to pursue opportunities in computing. Across the United States, sessions combine robotics, web design and mobile development with mentorship from engineers at our Ford Research and Innovation Center in Palo Alto, California
- The **High School Science Technology Program (HSSTP)** offers high school students hands-on experiences to increase their awareness about technical careers and demonstrate the importance

of science and mathematics in industry. Participants work with professional scientists, engineers and technicians in state-of-the-art laboratories and manufacturing facilities

- We support **The Tech Interactive**, a nonprofit science and technology center in the heart of downtown San Jose in Silicon Valley. The experiential learning resource provides hands-on activities, experimental labs and design challenges to encourage innovation, creativity and curiosity

Empowering Through Education

We know that education drives individual and community prosperity and social mobility. Today's global, innovation-based economy requires people to access relevant knowledge and skills, enabling them to adapt to the pace of technological change that confronts us all.

To help provide this access, Ford Fund supports initiatives that empower young people to take control of their future, work to improve people's lives and drive social mobility by making connections between what is learned in the classroom and its application in the real world.

- **Ford Driving Dreams (FDD):** FDD, a signature education initiative of Ford Fund, has been providing scholarship awards, contests and pep rallies to inspire multicultural youth and celebrate the benefits of staying in school, achieving academic success and

pursuing higher education. Since 2012, FDD has impacted more than 200,000 students across the United States, Puerto Rico, Latin America and Europe. The initiative has delivered more than \$10 million in educational resources.

[Watch a short video about Ford Driving Dreams](#)

- **Ford College Community Challenge (Ford C3):** In 2014, Ford Fund teamed up with the nongovernmental organization (NGO) Enactus to bring Ford C3, an innovative program supporting college student social entrepreneurs, to nine additional markets in Europe, Africa and Latin America. Over the past five years, this collaboration has helped around 2,500 students launch 190 social enterprises that have positively impacted more than 200,000 people around the world
- **Ford Fund Smart Mobility Challenge (UK):** Based on the Ford C3 model, Ford Fund and the Ford of Europe Mobility Team challenged students at Loughborough University to devise realistic, sustainable and affordable urban mobility solutions. Three winning teams shared \$25,000 in funding to develop their ideas
- **HERImpact D.C.:** Ford Fund and 1863 Ventures launched HERImpact D.C. in November 2018 to increase funding and resources for female entrepreneurs in the D.C. region. Participants are invited to a series of events aimed at building social entrepreneurship skills. In 2019, we expanded to more locations and launched a business plan competition with \$50,000 in prizes and investments
- **Ford First Gen @ Spelman College:** This first-of-its-kind Ford Fund program is designed to improve college completion rates among first-generation students. The program provides students a range of personal and professional services to help them succeed during their four years in college. Pairing first-year students with juniors as peer mentors, this is the latest in Ford Fund's long-standing commitment to supporting students at historically black colleges and universities

Ford Next Generation Learning Hits the U.K.

Ford Next Generation Learning (NGL) reaches more than 300,000 students each year, transforming high-school education in 40 communities across the United States. In 2019, elements of the model were introduced into the school curriculum in the North East of England. The Ford NGL "roadmap" connects communities, businesses and educators to blend classroom learning with essential workplace skills and real-world experience.

RESPECTING HUMAN RIGHTS

We work to identify and prioritize the issues with the most impact on the thousands of people touched by our business. At all times, we strive to comply with local laws and our own commitment to respecting human rights.

Our commitment is embodied in our Policy Letter 24: Code of Human Rights, Basic Working Conditions and Corporate Responsibility (referred to as Policy Letter 24). This is based on internationally recognized labor standards, including the UN Guiding Principles on Business and Human Rights, the Organisation for Economic Co-operation and Development (OECD), the Universal Declaration of Human Rights and the International Labour Organization core labor standards.

Ford is a signatory of the UN Global Compact, a framework of 10 universally accepted principles covering human rights, labor, environment and anti-corruption, and we actively participate in the UNGC's Supply Chain Sustainability Advisory Committee. We incorporate these principles into our policies and procedures. See our UNGC Index for further information.

We have conducted around 50 human rights assessments since 2004, evaluating how our global facilities, including joint ventures, align with Policy Letter 24. Ford began to pilot a new, more quantitative process for assessing human rights risks across global facilities in a consistent way, in line with industry best practices. An overview of recent assessments is available for download.

Due to global plant closures from COVID-19, the complete summary from assessed facilities will be delayed and published in due course.

Our commitment requires a robust approach to safeguarding against human rights abuses in our supply chain. This includes:

- Analyzing the human rights risks associated with our supply base
- Conducting training to build our suppliers' capability
- Auditing our Tier 1 suppliers in high-priority locations
- Collaborating with others in multi-stakeholder initiatives and partnerships

[See our performance data for further detail](#)

IDENTIFYING OUR SALIENT HUMAN RIGHTS ISSUES


We prioritize human rights issues at Ford and in our supply chain using a formal saliency assessment process. Conducted in line with the UN Guiding Principles Reporting Framework (UNGPRF), our 2020 saliency assessment identified and updated the human rights issues at risk of the most severe negative impacts through our activities and business relationships.

Having conducted the first saliency assessment in the auto industry in 2018, our second assessment built on this foundation. It was conducted with a third-party consultancy and we considered geographic, social, economic, diversity, community and supplier-related issues. The process included desk-based research, interviews, an online survey and workshops with external stakeholders, including investors, industry experts and suppliers, along with Ford employees representing all skill teams and global regions.

The assessment identified 10 salient human rights issues (see graphic). These apply throughout our business and our supply chain, including raw material sourcing, and extend to our partners and

suppliers. We review these issues annually and communicate our progress externally through the pages of this report, as well as our UNGPRF Index.

Human Rights Action Plans

In 2019, a cross-functional team developed a process to manage and track our action plans to prevent, manage and remediate salient human rights issues. This process will help us track the effectiveness of our due diligence systems and performance, and indicate opportunities to focus our efforts to address human rights issues, including those that affect how we source materials responsibly. This report details actions we are taking to address these salient human rights issues indicated by this symbol: .

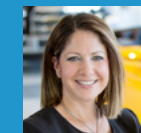
[Please see the UNGPRF Index for further details of our current and planned actions](#)

OUR SALIENT HUMAN RIGHTS ISSUES



* In alphabetical order.

** Other SDGs might apply; for full detail on our contribution, see our SDGs Index.



“EVERY BUSINESS MUST PUT PEOPLE FIRST AND STRIVE TO BECOME

TRULY RESPONSIBLE, REGENERATIVE AND RESILIENT. THAT'S WHY WE'RE USING OUR LATEST HUMAN RIGHTS SALIENCY ASSESSMENT TO HELP US PRIORITIZE WHERE TO DIRECT OUR RESOURCES, AND DEVELOP ACTION PLANS TO MONITOR, ADDRESS AND INCREASE ENGAGEMENT ON THESE ISSUES.”

MARY WROTEN, DIRECTOR, GLOBAL SUSTAINABILITY, SUSTAINABILITY, ENVIRONMENT & SAFETY ENGINEERING

ISSUE	UN SDGs**
1 Access to water and sanitation	6 12
2 Air quality	3 11 12
3 Child labor	8
4 Climate change	6 7 9 12 13
5 Data protection, privacy and security	9
6 Forced labor and ethical recruitment	8
7 Harassment and discrimination	5 10
8 Health, safety and security	3 8
9 Human trafficking	5 8
10 Product safety and quality	3

RESPECTING HUMAN RIGHTS WITHIN FORD

Our commitment to human rights starts with our employees, in line with our values of Doing the Right Thing and Putting People First. We are taking actions and establishing best practices to respect human rights throughout our business. We do not tolerate harassment and discrimination, and we follow ethical recruitment practices. Read more about how we're creating a winning culture on [page 16](#).

Our Human Rights Principles

- We respect employees' right to freedom of association and to collectively bargain
- We do not tolerate harassment or unfair discrimination
- We will not use forced/compulsory or child labor
- We provide compensation and benefits as well as work and vacation hours that are competitive and comply with applicable laws
- We will provide a safe and healthy working environment that meets or exceeds applicable standards for health and safety
- We promote and support appropriate education, training and development
- We respect the natural environment and want to help preserve it for future generations by working to provide environmental solutions and avoid waste
- We will be honest, open and transparent and model the highest standards of corporate integrity
- We encourage business partners and suppliers to adopt and enforce similar policies to those outlined in the above principles



“ I AM FORTUNATE TO WORK FOR A COMPANY WHOSE STRATEGIC SAFETY MEASURES REFLECT THE HEALTH AND WELL-BEING OF BOTH ITS EMPLOYEES AND THEIR FAMILIES. THIS ALLOWS ME TO WORK MORE EFFECTIVELY AND REMINDS ME THAT WHEN I RETURN HOME TO MY FAMILY, I CAN KEEP THEM HEALTHY AND SAFE.”


KEVIN BREWER, MILL OPERATOR, TROY DESIGN AND MANUFACTURING
(UAW REPRESENTATIVE)

In addition to the policies and procedures through which we protect our employees, we safeguard against the threat of forced labor, child labor and human trafficking among our suppliers and business partners. We have an International Framework Agreement (IFA) with the International Metalworkers' Federation that reiterates our commitments to our global labor community. The principles outlined in the IFA are based on highly respected labor standards supported by groups, institutions and documents, such as the UN Universal Declaration of Human Rights and the Global Sullivan Principles of Social Responsibility.

We ensure ongoing compliance with these principles through open dialogue with our union partners and an annual Global Information Sharing Forum, attended by union leaders and senior leaders at Ford. Where compliance issues are identified, we collaborate on solutions to critical issues as they arise.

Health and Safety

Nothing is more important than the health, safety and well-being of our people. Health, safety and security remains a salient human rights issue and a key strategic priority at Ford, and we work hard to achieve world-class levels of safety year-over-year, through the application of policies and best practices.

 Health, safety and security is a salient human rights issue for Ford.

We maintain a robust safety culture to reduce workplace injuries, supported by effective communication, reporting and

external benchmarking. We hold regular talks and events on key safety issues, including reporting all injuries, hazards and near-misses, so we can take action to prevent recurrences. We also participate in multi-industry groups, within and outside the automotive sector, to share safety best practices and collaborate to address common issues.

Around the world, the many campaigns, initiatives and promotions we undertook in 2019 to promote occupational health and safety included:


- **Come Home Safe campaign in Europe:**
To support Ford's safety culture in Turkey, families and children of employees participated in a safety and safe work practices workshop. The children recorded messages wearing personal protective equipment and created artwork to remind their parents of the importance of everyone's safety at work and beyond
- **Drills for National Safety Month in China:** In June 2019, leadership and employees from all Ford China plants participated in various drills and activities to raise employees' safety awareness and skills, reduce unsafe behavior and enhance Ford's strong safety culture
- **Partnership with the Michigan Occupational Safety and Health Administration (MIOSHA) in Detroit:** Ford partnered with MIOSHA to protect workers restoring the Michigan Central Station building in Corktown, Detroit, selected as the venue to kick off MIOSHA's National Safety Stand-Down Week in May 2019, focusing on fall prevention

Our Safety Record

Any loss of life or serious injury in the workplace is unacceptable and deeply regretted. We did not have any fatal incidents in 2019 to report. This is a significant achievement for us because unfortunately, we have experienced fatalities in previous years. Another key safety indicator, our lost-time case rate (LTCR), decreased from 0.41 to 0.39 in 2019.

Forced Labor, Child Labor and Human Trafficking

Identifying them as salient human rights issues, we do not tolerate forced labor, child labor or human trafficking in our operations. We safeguard against the threat of these human rights violations in our business and supply chain by maintaining compliance with all legislative initiatives, acts and regulations designed to increase transparency and promote due diligence. These currently include the California Transparency in Supply Chains Act of 2010, the U.K. Modern Slavery Act of 2015 and the Australia Modern Slavery Act of 2018.

 Child labor, forced labor and human trafficking are salient human rights issues for Ford.

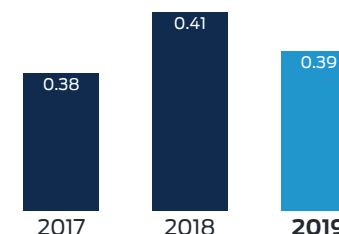
For further information, download our [Global Modern Slavery and Human Trafficking Disclosure Statement](#)

7 YEARS

WITHOUT A SAFETY INCIDENT AT OUR HERMOSILLO STAMPING AND ASSEMBLY PLANT IN MEXICO

LOST-TIME CASE RATE (LTCR)

Cases per 200,000 hours worked





Robots Take the Strain

Six collaborative robots (“cobots”) now work alongside engineers in Cologne, Germany, to ensure every Ford Fiesta has a perfect finish. The cobots complete a choreographed sequence to sand the entire body surface in just 35 seconds, with the same precision and dexterity as a human hand. The initiative allows operators to use their time on more complex tasks and avoid suffering the strains associated with performing repetitive tasks.

[Watch a short video about cobots](#)

Ethical Recruiting

Our policies and procedures for our business, including our suppliers, are aligned with the fundamental principles of ethical recruitment, one of our salient human rights issues.

Our policies prohibit Ford employees and our suppliers from:

- Destroying, concealing, confiscating or otherwise denying access by an employee to the employee's identity or immigration documents, such as passports or driver's licenses, regardless of the issuing authority
- Using misleading or fraudulent practices during the recruitment process

- Imposing financial burdens on workers by withholding wages or expenses, or charging them for any fees involved in the recruitment process. Suppliers are required to repay any fees that workers pay during the recruitment process

[Read more about attraction and recruitment, and our efforts to combat unconscious bias](#)

RESPONSIBLE SOURCING OF RAW MATERIALS

Our complex supply chain comprises around 1,200 Tier 1 production suppliers. We monitor them to ensure the 1,000 different materials we use are safe, responsibly sourced and do not contribute to conflict.



OUR GOAL

We aspire to responsibly source all raw materials used within our vehicles globally.

We never knowingly procure materials that contribute to child and forced labor, bribery and corruption, conflict or environmental concerns. We commit to complying with local laws, reporting customer terms and conditions, and respecting indigenous populations' rights to water and land. To address our salient human rights issues related to sourcing raw materials, we collaborate with stakeholders to identify risks, share best practices, agree on remedial actions, and monitor and report any action taken.

To increase transparency and responsibility in raw material sourcing, we have developed and are actively implementing a raw material sourcing strategy that expands our material due diligence program beyond conflict minerals. With certain raw materials, such as cobalt, mica, rubber and conflict minerals (see below), suppliers may be asked to verify that the materials they supplied to us were sourced

responsibly. We participate in workgroups and discussions to address ethical, environmental and labor issues, and use tools to ensure the responsible sourcing of specific raw materials as early in the sourcing process as possible.

Disclosing and Reporting on Conflict Minerals

Ford continues to maintain its leadership position in addressing the human rights issues associated with conflict minerals. Our Conflict Minerals Report maintained its place in the top five companies across all industries in the Mining the Disclosures 2019 report, published by the Responsible Sourcing Network, and was once again the clear leader among automakers.

Ford chairs the Automotive Industry Action Group (AIAG) Smelter Engagement Team (SET) on behalf of the North American automotive industry to lead and complete coordinated outreach directly to smelters and refiners to engage in independent audit programs. We also lead the Responsible Minerals Initiative (RMI) SET for global gold refiner outreach and engagement.

Conflict minerals include gold, as well as columbite-tantalite (coltan), cassiterite and wolframite or their derivatives, tantalum, tin and tungsten (known as “3TG”), which are used in many auto components. We require all of our suppliers whose components contain 3TG to conduct due diligence to understand the origins of these minerals, source them responsibly and not knowingly provide minerals that may contribute to conflict.

We continue to encourage suppliers to use the Due Diligence Guidance and associated framework compiled by the Organisation for Economic Co-operation and Development (OECD) to assess the chain of custody of these minerals.

Learn more about our 2019 actions and disclosures through our Conflict Minerals Report, filed annually with the U.S. Securities and Exchange Commission (SEC).

Transparent Reporting on Modern Slavery

In 2019, Ford participated in the GRI–RLI Task Force on Reporting on Modern Slavery. The task force, composed of 14 cross-industry organizations, produced a toolkit to encourage increased reporting on modern slavery. The toolkit provides guidance for downstream companies on due diligence and reporting requirements related to modern slavery across the supply chain.



Reporting Progress

Suppliers are required to submit an annual Conflict Minerals Reporting Template to us. For five consecutive years, 100 percent of in-scope suppliers have responded.

We plan to continue our conflict minerals journey by maintaining a 100 percent response rate from in-scope suppliers for annual reporting; encouraging smelters to be audited by independent validation programs such as the Responsible Minerals Assurance Process (RMAP); and increasing the percentage of suppliers providing smelter lists and using RMAP-conformant smelters.

In 2020, we plan to voluntarily submit information on our conflict minerals due diligence through an online portal in accordance with the European Commission conflict minerals regulation to become effective January 2021, and will continue filing conflict minerals due diligence information voluntarily to the European portal annually.

[Read our most recent Conflict Minerals Disclosure filing and download our Conflict Minerals Policy for more information.](#)

Supplier Requirements

Our Global Terms and Conditions, and other supporting documents, require suppliers and sub-contractors to comply with the fundamental protections, including those listed below, for all workers. We ask our suppliers to extend the same expectations to their own suppliers.

- Forced labor and ethical recruiting
- Child labor
- Conflict minerals and responsible sourcing of raw materials
- Bribery and corruption

For environmental requirements for suppliers, see [Minimizing Our Supply Chain Impact](#).

Other Responsibly Sourced Raw Materials

We seek to identify and prevent risks in our supply chain associated with raw materials other than 3TG. To help our suppliers source materials ethically and responsibly, we use enhanced requirements in contracts, reporting requests and transparent dialogue. We've extended our responsible sourcing requirements beyond conflict minerals to additional materials.

Cobalt

An electric car battery contains up to 20 pounds of cobalt, largely sourced from the Democratic Republic of the Congo (DRC), and demand is rising in line with the growth of electrified vehicles. Sourcing the minerals needed without contributing to forced and child labor is a significant challenge that we can only solve through collaboration with miners, smelters and refiners.

We continue to explore supply chain mapping to gain greater transparency about the sources of the cobalt we use for our battery electric vehicles (BEVs).



SOURCING THE RAW MATERIALS NEEDED FOR BATTERY TECHNOLOGY PRESENTS SOME COMPLEX CHALLENGES. WE WORK TIRELESSLY TO ADDRESS THE ETHICAL, ENVIRONMENTAL, HUMAN AND LABOR RIGHTS ISSUES THROUGHOUT THE SUPPLY CHAIN, AND STRIVE TO MAKE THE WHOLE PROCESS AS TRANSPARENT AS POSSIBLE."

EMMA KING, GLOBAL SUSPENSION AND NORTH AMERICA LEAD CHASSIS DIRECTOR, PURCHASING

Mica

Mica is used predominantly in surface coatings and contained in other vehicle materials, such as in polymers for exterior mirror housing and covers. We engage in regular dialogue with key coating suppliers to monitor the responsible sourcing of mica.

In 2020, we plan to explore enhanced mica due diligence, consistent with our own commitment to protecting human rights and in adherence with local law. We participate in the RMI's mica working group to explore cross-industry collaborations that can result in enhanced mica supply chain risk identification and mitigation. We take our sustainability commitments seriously and seek to address issues quickly if they occur.

Rubber

We promote the sustainable sourcing of natural rubber through third-party research and multi-stakeholder initiatives. We co-founded the Global

Platform for Sustainable Natural Rubber (GPSNR) to improve socioeconomic and environmental performance in the supply chain. Members, including tire manufacturers, rubber suppliers and processors, vehicle manufacturers and NGOs, seek to improve human rights standards, prevent land-grabbing and deforestation, protect biodiversity and water sources, improve yields and increase supply chain traceability.

One of the GPSNR's priorities is to involve independent natural rubber growers in setting strategy and implementation initiatives dedicated to improving rubber sourcing. To date, more than 20 smallholders from around the world have become members of GPSNR.

Copper

Copper is commonly found in various automotive components, including radiators, wiring, circuitry and printed circuit boards.

To demonstrate our commitment to responsibly sourced copper, we have partnered with The Copper Mark, a new comprehensive social and environmental assurance program. We will work in cooperation with The Copper Mark, encouraging copper producers to adapt responsible operating practices and make significant contributions to the UN Sustainable Development Goals.

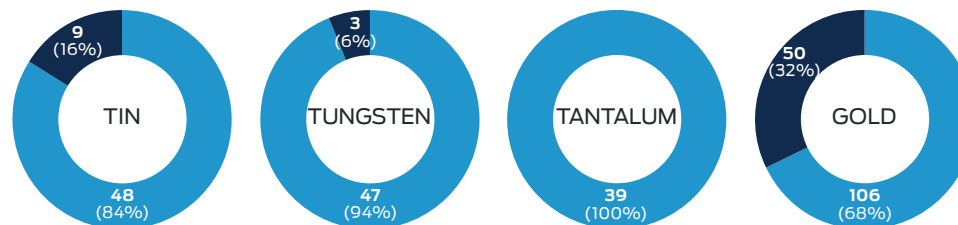


Multi-Stakeholder Action on Responsible Sourcing

We participate in several multi-stakeholder groups focused on both conflict minerals and other materials. These activities include:

- Chairing the Smelter Engagement Team and engaging in the Responsible Materials Work Group of the Automotive Industry Action Group (AIAG)
- Serving on the Projects and Resources Work Group of the Public-Private Alliance for Responsible Minerals Trade (PPA)
- Leading the Global Gold Smelter Engagement Team and participating in several workgroups with the Responsible Minerals Initiative (RMI)
- Participating in the automotive original equipment manufacturer (OEM) and capacity building workgroups of the Global Platform for Sustainable Natural Rubber (GPSNR)

REPORTED SMELTER CONFORMANCE RATES AS OF DECEMBER 31, 2019 (by mineral)



■ Conformant/active ■ Not participating

BUILDING CAPABILITY IN OUR SUPPLY CHAIN

Preserving human rights is a key component of our model for human progress. Our work to address our salient human rights issues extends throughout our entire supply chain. Training is essential to help our suppliers build their capacity to manage human rights issues and working conditions in their facilities.

Given the size and complexity of our supply chain, we focus on suppliers in locations that pose the highest risk for substandard working conditions. To identify these locations, we conduct an annual risk analysis, incorporating internal data and input from external experts and stakeholders. Our list of 22 high-priority countries remained unchanged in 2020.

Our robust approach to safeguarding against human rights abuses in our supply chain includes:

- Conducting training to build our suppliers' capability
- Auditing our Tier 1 suppliers in high-priority locations
- Participating in multi-stakeholder initiatives and industry partnerships

Training to Build Capability

Our approach to training was developed and launched through the AIAG, of which Ford is a member of the Board of Directors. It involves an e-learning module, introducing the [Automotive Industry Guiding Principles](#), and an assessment, freely available to OEMs and their suppliers in seven languages. These are supported by locally customized workshop sessions, the information from which participants must share with their own employees and suppliers.

Most of our in-person supplier training is delivered through the AIAG or [Drive Sustainability](#), an organization committed to increasing sustainability and supply chain management efforts in the automotive industry.

2019 Training Performance

AIAG e-learning module:

874 participants (26% Ford suppliers)

Supplier training:

96 direct and indirect supplier sites in five countries (Brazil, Malaysia, Poland, South Africa and Taiwan)

Ford suppliers are invited to complete Drive Sustainability's Self-Assessment Questionnaire (SAQ). The SAQ assesses social and environmental sustainability performance, business conduct and compliance, and supplier management, and allows responses to be shared with customers. For the third consecutive year, we issued more than 500 supplier SAQs to our Tier 1 suppliers. The responses inform our risk assessment for prioritizing further capacity building or due diligence.

During 2019, through our partnership with the Responsible Labor Initiative (RLI), we supported training and capacity building for our supply base in Taiwan, with a particular focus on recruitment fees. Attendees were given insights into the warning signs of forced labor and how to play an active role in prevention and remediation. A total of 125 individuals representing 73 companies attended the one-day session conducted by RLI.

[See our performance data for more information about training sessions](#)

Strengthening our ability to identify and manage human rights issues with our regional buyers, 70 Ford Purchasing employees in the Asia Pacific region were trained on our [Policy Letter 24](#) and Supply Chain Sustainability Program, taking the total trained or retrained to date to 4,811.

We also conducted *Driving a Better Tomorrow* learning sessions for more than 400 Purchasing employees, focusing on how they can support responsible sourcing and build trust in business relationships.

Auditing Our Suppliers

Third-party social responsibility audits let suppliers know whether they meet their legal requirements and our expectations, while highlighting areas for improvement. We have held 1,186 supplier audits and 1,612 follow-up assessments worldwide to date.

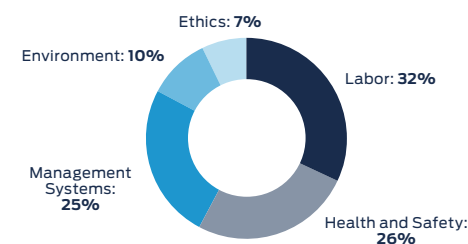


Through the Responsible Business Alliance (RBA), we work on issues such as human rights, working conditions, child labor, forced labor, ethical sourcing and environmental responsibility. We currently serve on the RBA's Board of Directors and actively participate in a number of workgroups. We use its Validated Audit Protocol to assess labor, health and safety, management systems, ethics and environmental issues. In 2019, 23 audits

Reimbursing Recruitment Fees

During 2019, we worked with a supplier in Taiwan to reimburse recruitment fees that were being charged to migrant workers at the supplier's site. Although fees are regulated by the government of Taiwan and can be legally charged to migrant workers, we requested the supplier provide remediation by reimbursing all recruitment and service fees associated with the workers' employment in accordance with our ethical recruiting expectations. Our team worked with the supplier to identify policies and procedures to prevent and remediate fees in the future. These policies were adopted by the supplier and implemented in other facilities, thereby spreading the effect of the corrective action beyond Taiwan. Lessons learned resulted in a partnership with the RLI, to provide training and capacity building with a focus on recruitment fees for our Taiwan suppliers.

TOTAL NON-CONFORMANCES 2019



were conducted, 100 percent of which were externally validated and certified by the RBA.

Audit Findings

In our 2019 RBA audits, approximately 6 percent of identified non-conformances required immediate action, of which 55 percent are labor issues (primarily working hours and consecutive days of work), 43 percent are health and safety issues related to emergency preparedness and 2 percent are related to ineffective management systems.

All suppliers with priority non-conformances are offered RBA e-learning modules to support capability building. We help them develop corrective action plans and regularly monitor their progress.

[See our performance data for more information about social responsibility audits](#)

Taking Corrective Action

For any non-conformances found, we expect suppliers to develop action plans that detail causes and planned remediation. For more serious priority non-conformances, we review and monitor immediate containment plans and longer-term corrective action plans.

Although we reserve the right to end our relationship should any supplier fail to comply with our Global Terms, we did not end any supplier relationships due to unresolved audit findings in 2019.

Please see the [UNGPRF Index](#) for further details of our suppliers' non-conformances and any current or planned remedial actions.



“NEW TECHNOLOGIES ARE CREATING EXCITING OPPORTUNITIES FOR GROWTH FOR SUPPLIERS THAT CAN GRASP THE CONCEPT OF DIVERSITY AND INCLUSION. WE REMAIN COMMITTED TO SUPPORTING AND PROMOTING OUR DIVERSE SUPPLIERS, WHILE EXPANDING THE ECONOMIC IMPACT AND GROWTH IN THE COMMUNITY FOR A MORE SUSTAINABLE FUTURE.”

TRAVIS SPENCER, HEAD OF SUPPLIER DIVERSITY AND INCLUSION

SUPPLIER DIVERSITY

We are committed to creating opportunities for diverse suppliers running minority-, women- and veteran-owned businesses that foster innovation, drive profitability and prioritize sustainability.

Our nationally recognized Supplier Diversity and Inclusion (SDI) program facilitates productive business partnerships with a diverse range of entrepreneurs and develops services for our customers by driving innovative best practices. It now includes certifications from the National LGBT Chambers of Commerce, Disability:IN, the Small Business Administration and WEConnect International, emphasizing our commitment to diversity and inclusion.

In 2019, Ford purchased goods and services worth more than \$15 billion, as follows:

- **\$8.49 billion** from minority-owned suppliers
- **\$1.53 billion** from women-owned businesses
- **\$0.179 billion** from veteran-owned companies
- **\$5.22 billion** from small businesses

Promoting a Diverse Supply Chain

As well as buying from diverse suppliers, we work with business leaders, community organizations and trade associations that represent the interests of diverse businesses.

We are members of the Billion Dollar Roundtable (BDR), a group of 29 corporate members across 10 industry

sectors that each purchase at least \$1 billion of goods annually from diverse suppliers. The BDR encourages corporate entities to grow their supplier diversity programs and shares best practices through the production of white papers.

Further demonstrating our commitment, we hold Board of Director seats with several advocacy organizations for minorities and women.

\$153BN

IN GOODS AND SERVICES SOURCED WITH MINORITY-, WOMEN- AND VETERAN-OWNED BUSINESSES TO DATE

14

OF OUR 108 STRATEGIC ALIGNED BUSINESS FRAMEWORK (ABF) SUPPLIERS ARE MINORITY-, VETERAN- AND WOMEN-OWNED

Widening the Inclusion Network

To amplify the impact of our spend with diverse businesses, Ford's Tier 1 suppliers are encouraged to establish their own supplier diversity programs, with guidance on percentage spend with minority-, women- and veteran-owned businesses, as well as other small businesses and disabled- or LGBTQ-owned organizations.

Ford has launched an enhanced Tier 2 supplier program, the Tier 2 WIN (Widening the Inclusion Network). It further extends the impact of these programs through coaching and mentorship, as well as connecting our key suppliers with diverse businesses.

SAFETY AND QUALITY

Ford cares about customer safety. Safety and quality of our vehicles is a salient human rights issue and will always be our highest priority.

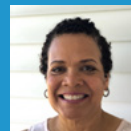
👤 **Product safety and quality is a salient human rights issue for Ford.**

We have systems in place to help ensure that our vehicles meet or exceed performance and quality standards, as well as customer expectations, throughout their design, development and manufacture.

IMPROVING VEHICLE SAFETY

Our corporate safety policy outlines our commitment to creating vehicles that achieve the highest levels of safety in a range of real-world conditions. This helps us meet or exceed relevant laws and regulations, as well as customers' needs and expectations.

Our processes and systems confirm that our vehicles align with stringent internal guidelines on safety design and Ford-specified levels of performance for Public Domain tests (see below). We regularly re-evaluate and update these guidelines, ensuring continuous improvement. To achieve high levels of safety performance, we conduct engineering analyses, computer simulations and component, sub-system and full-vehicle crash tests at several sites in the United States and Europe, including crash-test facilities, the VIRTTEX (Virtual Test Track Experiment) and the Research and Innovation Center in Dearborn, Michigan.



“WE BUILD OUR VEHICLES AND DEVELOP OUR SERVICES TO DRIVE HUMAN PROGRESS AND PROTECT OUR CUSTOMERS, WHILE DELIVERING THE QUALITY, SAFETY, RELIABILITY AND DRIVING EXPERIENCE THEY EXPECT.”

KIMBERLY HARRIS, GLOBAL QUALITY BUSINESS MANAGER

U.S. NEW CAR ASSESSMENT PROGRAM (NCAP)

10 Ford and 3 Lincoln

NAMEPLATES EARNED 5-STAR OVERALL VEHICLE SCORES

EURO NCAP

5 models

EARNED 5-STAR OVERALL VEHICLE SCORES

J.D. POWER

Top 5

BOTH FORD AND LINCOLN RANKED IN THE TOP FIVE OF THE INITIAL QUALITY STUDY FOR THE FIRST TIME

Global Safety Ratings

Ford continues to receive high marks and accolades in public and private crash-testing assessments. However, the full range of global, regional and national programs that rate and publish vehicle safety ratings vary considerably. They are conducted by a range of consumer advocacy groups, auto clubs, motoring magazines and insurance-sponsored organizations, each with its own testing protocols and evaluation criteria.



Because these New Car Assessment Programs (NCAPs) vary so much and are continually updated, it is increasingly difficult to achieve top ratings across all regions. Nonetheless, we are proud that so many of our vehicles have received 5-star ratings.

Our safety assessment report, *A Matter of Trust*, details the steps we are taking to ensure our next generation of smart, self-driving vehicles are safe for drivers, passengers, other road users and pedestrians. Read more on [page 49](#).

PRODUCT QUALITY

We use internal and external measurements of quality and brand promotions to assess our performance and decide where we can make improvements.

Providing high-quality products improves the customer ownership experience. We use warranty repairs per 1,000 vehicles at three months in service as a key metric to measure initial quality, going beyond warrantable defects to include measures of customer excitement with new product features. Our established metrics measure Quality Promoter Loss and Product Likes and Dislikes on a per 1,000 vehicle basis.

We also subscribe to three annual studies by J.D. Power and Associates:

- **Vehicle Dependability Study:** Ford's results have improved every year for the past four years. In the 2019 study of three-year-old vehicles, the 2016 Ford Expedition was recognized for its reliability
- **Automotive Performance, Execution and Layout (APEAL) study:** Ford's APEAL score has improved every year since 2014. Five 2019 Ford Motor Company models (Ford Ranger, Ford Super Duty, Ford Expedition, Ford F-150 and Lincoln Navigator) won awards in their category
- **Initial Quality Study (IQS):** Since IQS was redesigned in 2013, Ford has improved by more than 36 percent. In 2019, Ford was one of five U.S. brands performing above the industry average. With Ford ranked fourth (2018: fifth) and Lincoln fifth (2018: seventh), this was the first time both brands have made the top five

See our product quality data in our [Data Appendix](#).

Since vehicle quality and customer safety remain top priorities at Ford as a salient human rights issue, we are investing additional time and attention to continue improving in these areas. Accordingly, we are revamping our processes and leveraging cutting-edge technologies to ensure quality, customer satisfaction and recall actions have more visibility and support at all levels of the company.



“WORKING IN A COMPANY THAT IS SO COMMITTED TO THE SAFETY OF ITS CUSTOMERS, AS WELL AS THE ENVIRONMENTAL SUSTAINABILITY OF ITS OPERATIONS AND PRODUCTS, FOSTERS A SPIRIT OF TRUE INNOVATION. CONSTANTLY SEARCHING FOR NEW SOLUTIONS HAS BECOME AN EVERYDAY PASSION.”

ADRIAN DIAZ, ASSOCIATE DIRECTOR, AUTOMOTIVE SAFETY OFFICE

▪ Data Analytics and Machine Learning:

We are increasing our use of advanced data analytics and machine learning to help with the earlier detection of potential issues across our vehicle portfolio

- **Traceability:** New tools will enable us to trace parts and subsystems more precisely to vehicle-specific builds when an issue arises, rather than issuing wider recalls targeting a date range of vehicle identification numbers, which generally involve broad vehicle populations that may not all be affected

▪ Improving Investigation Processes:

We continue to improve investigation tracking and dealer engagement processes. Using an integrated data management system, we will soon be able to monitor all stages of a quality investigation, which will lead to faster decisions, improved parts availability and global sharing of best practice solutions

DRIVER ASSIST TECHNOLOGIES

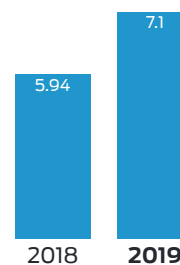
Having set the benchmark with factory-installed safety belts six decades ago, we continue to develop new, innovative driver assist technologies that enhance vehicle safety.

A World of Driver Assist Options

Ford and Lincoln Co-Pilot360™ technologies help customers drive safely and confidently, alerting them to potential collisions and making routine tasks easier. These features, available around the world, use a combination of radar, sonar and cameras to sense and interpret the environment.

In the United States, the Ford and Lincoln Co-Pilot360™ base package contains five standard technology features: Blind Spot Information System (BLIS®) with Cross-Traffic Alert Lane-Keeping System, Pre-Collision Assist with Automatic Emergency Braking, Auto High-Beam Headlamps and Rear-View Camera. This package is now available on at least 15 of our 2020 model year vehicles.

PASSENGER VEHICLE RECALLS (UNITED STATES)³ (Million)



³ Includes TAKATA Airbag and DPS6 transmission-related recalls.



Other Driver Assist Technology

Pro Trailer Back-up Assist™ (2020 model year Expedition, F-150 and Super Duty)
After entering a few measurements, the camera tracks the trailer's position and turns the trailer in the same direction as a driver-activated dial.

Hill Descent Control™ (2020 model year Explorer and Expedition)
This system continually adjusts braking pressure to help control slippage and maintain a constant preset speed while going down a steep gradient.

Trail Control™ (FX4 Off-Road Package for Ranger, F150 Raptor and Super Duty)
The driver-activated system helps the vehicle cope with rough terrain by managing throttle and braking on each wheel while maintaining a constant speed of up to 20 mph.

[Learn more about our driver assist technology at Ford.com](https://www.ford.com/en/technology/driver-assist)

Other Research Partnerships

Occupant Protection and Crashworthiness

- Working with industry partners to evaluate the repeatability, reproducibility and durability of new anthropomorphic test devices ("crash test dummies") so that they more closely simulate the responses of human occupants
- Analyzing occupant injuries from far-side crashes with USCAR
- Evaluating the safety performance of lithium-ion batteries with Sandia National Laboratories and the National Renewable Energy Laboratory
- Assessing the internal damage that a battery cell can sustain without shorting with Wayne State University
- Researching the potential of nano-liquid foam technology in both restraints and structural applications with Michigan State University
- Evaluating the material properties of 3D metal lattices and using computer-aided engineering for modeling crash-loading with the Royal Melbourne Institute of Technology

Technical Challenges of Self-Driving Vehicles

- Founding member of the American Center for Mobility, using its state-of-the-art facility for developing and validating test methods for self-driving vehicles
- Leadership Circle member of MCity, partnering with the faculty of the University of Michigan
- Member of Partners for Automated Vehicle Education (PAVE)
- Working with Virginia Tech to assess positional issues for potential restraints and seating configurations in self-driving vehicles
- Participating in the Crashworthiness Task Force Committee of the Society of Automotive Engineers Automated Driving Systems (ADS)

Vehicle-to-Vehicle (V2V) Safety Communication Systems

- Working with other automotive OEMs and the Federal Highway Administration on vehicle-to-infrastructure (V2I) safety, mobility and sustainability applications, alongside the SAE on message standards, and with owners and operators of road infrastructure to facilitate developments

Cybersecurity

- Instrumental in developing global standards including co-chairing work on the upcoming ISO 21434 standard, participation on past best practices in conjunction with the Information Sharing and Analysis Center (Auto-ISAC) and proactively assessing the impact of cybersecurity on new areas such as data privacy, advanced driver-assistance systems and self-driving vehicles
- Continuing to work with the Department of Homeland Security on pre-competitive research through the Automotive Cybersecurity Industry Consortium (ACIC)

Driver Distraction

- Partnering with universities and organizations such as the Auto Alliance, we are researching driver distraction and analyzing data from large-scale naturalistic driving studies

The Next Level

Our 2021 model year Ford Mustang Mach-E and F-150 will be the first Ford vehicles to come with the Ford Co-Pilot360™ 2.0 package. This adds extra features, on top of those offered on the Ford Co-Pilot360™ base package, as standard:

- Reverse Sensing System** assists drivers when parking by sounding a tone when the vehicle gets close to surrounding vehicles and other objects
- Reverse Brake Assist** alerts the driver to stationary objects and pedestrians behind the vehicle, and can bring it to a complete stop if the driver doesn't react in time
- Post-Collision Braking** helps reduce the impact of a potential secondary collision by automatically applying moderate brake pressure after an initial crash

A new hands-free driving feature to help make driving less stressful will be available on the new Mustang Mach-E and eventually on other models.

[Read about our Safety Insights analytics tool](#)

Occupant Protection

Precompetitive Partnerships

To enhance the safety of vehicle occupants, we work alongside General Motors and Fiat Chrysler through the U.S. Council for Automotive Research (USCAR), and collaborate with other manufacturers through the Auto Alliance, the European Automobile Manufacturers Association (ACEA), the Society of Automotive Engineers (SAE) and the International Organization for Standardization (ISO). We often publish the results in peer-reviewed journals and scientific publications.

Post-Crash Response

In-vehicle technology that helps occupants to call for assistance after an accident can give first responders potentially life-saving information, quickly and efficiently.

Our SYNC® in-car connectivity, which enables drivers to use cell phones and MP3 players through voice commands,

Combatting Heatstroke in Vehicles

In the United States, on average, a child dies from vehicular heatstroke every nine days ([KidsAndCars.org](https://www.kidsandcars.org)). At Ford, development is underway to design a Rear Occupant Alert System that can provide warnings via our SYNC system. Encompassing all the elements outlined in the Voluntary Agreement published in September 2019 from the Alliance of Automobile Manufacturers (Auto Alliance) and the Association of Global Automakers, the feature will be deployed globally well ahead of the mandatory 2025 model year deadline.

Greater understanding about the dangers of leaving a young child unattended in a vehicle is also imperative, which is why we are funding a campaign by the Alliance of Automotive Innovation to raise awareness of pediatric vehicular heatstroke.

comes with a call-for-help system. SYNC 911 Assist (Emergency Assistance outside the United States) can make an emergency call using a paired cell phone after a crash in which an airbag is deployed or the fuel pump shut off. As well as providing the operator with a GPS location, the system relays data on impact velocity, crash type, safety belt use and airbag deployment, helping emergency services respond appropriately.

Most of our vehicles carry the SOS—Post Crash Alert System™, which alerts passersby and first responders to a vehicle's location. In the event of airbag or safety belt pre-tensioner activation, it automatically starts the hazard lights, unlocks the doors and sounds the horn (non-European vehicles only).

In parallel to a mandatory EU regulation on Automated Emergency Calling Systems for new vehicles in 2018, a UN regulation to harmonize all in-vehicle systems on a global scale has also been adopted.

STRENGTHENING COMMUNITIES AND MAKING LIVES BETTER

More than just an employer, we're also a neighbor to thousands of people around the world – and good neighbors step up when their communities need them most. That's what drives our commitment to making a positive impact on society and strengthening the communities in which we operate.

Ford Fund: Coordinating Our Efforts

As the company's philanthropic arm, Ford Motor Company Fund ("Ford Fund") aims to strengthen communities and help make people's lives better.

For more than 70 years, Ford Fund has been driving human progress by providing access to opportunities and resources that help people reach their full potential. Working with dealers and nonprofit partners in more than 50 countries, Ford Fund helps advance our vision of becoming the world's most trusted company by investing in programs that:

- **Enrich community life:** Developing programs that help feed the hungry, remove socioeconomic barriers, provide disaster relief, support arts and cultural initiatives, and celebrate the diversity that strengthens communities

Ford Fund: Coordinating Our Impact on Society

\$62.2 million

total charitable contributions in 2019 (Community life: \$40.1 million; Education: \$13.3 million; Driver safety: \$8.8 million)

More than \$2 billion

invested to strengthen communities around the world to date



“IT IS REWARDING TO KNOW THAT, THROUGH MY WORK AT FORD, I HELP TO

EMPOWER COMMUNITIES, DELIVER MUCH-NEEDED SUPPORT IN TIMES OF NEED, AND PROVIDE RESOURCES TO FOSTER THE DREAMS OF YOUNG HISPANICS IN THE U.S. AND LATIN AMERICA. I AM PROUD TO CONTINUE HENRY FORD'S LEGACY OF CREATING AN INNOVATED, SUSTAINABLE BUSINESS, WHILE STRENGTHENING COMMUNITIES AND HELPING IMPROVE PEOPLE'S LIVES.”

JOE ÁVILA, MANAGER, U. S. AND LATIN AMERICA, FORD FUND

- **Promote safe driving:** Providing teens and newly licensed drivers with training beyond what they learn in standard driver education programs
- **Encourage employee volunteering:** Creating opportunities for Ford employees to give back through the Ford Volunteer Corps and other programs
- **Support education:** Advancing essential skills development and job training, and presenting opportunities for young people to study science, technology, engineering, arts and math (STEAM) subjects

COMMUNITY LIFE

Ford Fund works with local and global partners on programs and services that make people's lives better. From feeding the hungry and mentoring social entrepreneurs to supporting multicultural initiatives and rebuilding after a natural disaster, we connect at a grassroots level to strengthen communities and help people in need.

[Watch a short video about Ford Driving Dreams](#)

FREC Comes to Thailand

The Ford Resource and Engagement Center (FREC) Bangkok is the latest addition to our \$15 million network of community centers around the world.

Opened in October 2019 in the historic Nang Loeng neighborhood, FREC Bangkok serves as a hub for some of Thailand's most innovative nonprofits, social enterprises and foundations:

- **Scholars of Sustenance** distributes surplus food to communities in need
- **Love Wildlife** teaches young people the importance of wildlife
- **The Bird Conservation Society of Thailand** trains bird enthusiasts and

protects Thailand's natural habitats

- **Urban Studies Lab** runs research and projects to give communities a voice in urban planning decisions
- **Precious Plastic Bangkok** turns plastic waste into new products
- **FabCafé** runs a high-tech workshop in a community space
- **Creative Migration (East)** advances cultural diplomacy through art, public engagement and sustainability
- **Na Café** offers vocational programs for young people, supports refugees, runs soup kitchens, and promotes zero-waste food and beverages

Investing In and Around Detroit

Since our company was founded in Detroit in 1903, we have been investing in and around our hometown. Ford Fund has invested more than \$175 million in local education, arts, cultural, diversity, hunger relief and social service organizations throughout southeast Michigan.

In addition to transforming the long-abandoned Michigan Central Station into a new innovation hub, Ford is investing \$10 million over four years to support programs that benefit people living in the development area. This initiative focuses on housing affordability, workforce development, mobility solutions, park preservation, neighborhood safety and preserving Corktown's culture. As part of this agreement, we awarded \$250,000 in grants to four nonprofit organizations to fund programs that celebrate the area's history and culture.

Building a Better World

Across the United States and around the world, we've developed a grassroots framework – Operation Better World – that brings local Ford teams, dealers and nonprofits together in a coordinated way to better serve the community. Through these

local, national and global partnerships, we were able to provide educational resources, promote safe driving and smart mobility initiatives, and support programs that enriched community life in more than 50 countries in 2019.

One of the ways we do this is through our Ford Resource and Engagement Centers (FRECs) – a Ford Fund innovation that brings nonprofit partners together in a collaborative environment to support local communities. Each center reflects the needs and culture of the community it serves, from basic needs such as food and shelter to job training, mentoring and educational opportunities, or arts and cultural initiatives.

The original FREC in southwest Detroit has assisted more than 100,000 local residents, distributed more than 2.7 million pounds of food and helped complete more than 11,000 tax returns. In total, the facility has returned \$3 in services to the local community for every \$1 invested. Ford Fund has since opened additional community centers on the east side of Detroit; in Pretoria, South Africa; Craiova, Romania; and Bangkok, Thailand (see above).



SHE-MOVES: Driving Human Progress Through Social Enterprise

Ford's grant program SHE-MOVES (Strengthen Her: Mobilizing Ventures for Social Innovation) supports women-led social enterprises with women and mobility at the heart of their mission.



- SHE-MOVES funding helps Uhambo in South Africa to train parent "champions," giving children with disabilities access to work, school and social events, and offering caregivers relief from isolation
- SHE-MOVES funding helps Shuttlers offer women commuters personal and professional development opportunities during their bus journeys into Lagos, Nigeria
- Zaclon India is helping more than 40 women to gain driving and commercial vehicle licenses, enabling them to earn a living behind the wheel



“BEFORE ESTABLISHING MY OWN STARTUP, I DIDN'T HAVE TIME FOR PERSONAL AND CAREER DEVELOPMENT AND HAD TO TAKE LEAVE TO ATTEND TRAINING. THAT'S WHY I'M VERY EXCITED ABOUT JOINING THE SHUTTLES TO MENTOR YOUNG WOMEN.”

NKEM OKOCHA, MENTOR, SHUTTLEERS

Supporting the Journey to “Type None” Diabetes

Through our partnership with the Juvenile Diabetes Research Foundation (JDRF), we support its mission to create a world without type 1 diabetes (T1D). The thousands of volunteers in the Ford Global Action Team, organized into fundraising teams across 40 sites, have raised \$65 million since 1983, complementing JDRF's work to fund vital T1D research and support people with the condition.

[Watch a short video about our work with the JDRF](#)

Disaster Relief

Supporting nonprofit disaster relief efforts is an essential part of our mission. Every year, Ford Fund provides more than \$1 million in grants to nationally recognized aid organizations – including the American Red Cross Annual Disaster Giving Program – in addition to donating vehicles, supporting employee donation and volunteer programs, and working with dealers to support both immediate and long-term rebuilding efforts.

In 2019, Ford Fund, as well as our employees and dealers, contributed to relief efforts in response to the wildfires of Australia, an earthquake in Puerto Rico and a hurricane in the Bahamas. In Puerto Rico alone, Ford Fund has invested more than \$1.5 million in aid and donated vehicles since Hurricane Maria struck in 2017.

We also acted quickly to protect our people, customers and communities during the coronavirus crisis. [Read about our response to the COVID-19 outbreak.](#)

PROMOTING SAFE DRIVING

Ford Driving Skills for Life (DSFL) is a global initiative that teaches teens and other newly licensed drivers how to stay safe behind the wheel.

Through free safe-driving clinics and instruction via its online training “Academy,” Ford DSFL teaches skills necessary for safe driving beyond what is learned in standard driver education programs.

During hands-on driving clinics, newly licensed drivers are paired with professional driving instructors to learn about vehicle handling, hazard recognition, speed, space management, distraction and impairment. The curriculum also highlights the role that vehicle technology can play in saving lives, and addresses issues surrounding the relationship between cyclists and drivers, the safe use of electric scooters and the safety protocols around ride-sharing services.

Around the world, Ford DSFL training is adapted to reflect cultural nuances, unique driving conditions, and local laws and infrastructure in each country it is offered.

EMPLOYEE VOLUNTEERING

FORD DSFL IN NUMBERS

40,000+

PARTICIPANTS IN 31 COUNTRIES IN 2019

1.25M+

DRIVERS TRAINED IN 50 U.S. STATES AND 46 COUNTRIES SINCE 2003

\$60M+

INVESTED IN FORD DSFL TO DATE

Bill Ford Better World Challenge

The Bill Ford Better World Challenge is a global grant program that supports employee-led efforts to address issues surrounding mobility, food and shelter, and access to water, sanitation and hygiene in their local communities.

Jointly funded by Executive Chairman Bill Ford and Ford Fund, the program has awarded \$1.5 million to projects in India, Mexico, South Africa, Thailand and the United States since it began in 2015.

In our most recent projects:

- Ford employees in Orlando, Florida, developed *Food for Life*, an urban agriculture program that makes nutritious food more accessible by converting underutilized land into micro-farms and teaching the students at two underserved high schools how to grow their own food
- The Watergen program in drought-stricken South Africa uses special equipment hitched to a Ford Ranger to capture moisture from the air. Between August 2019 and March 2020, it has provided clean and safe drinking water for 2,700 community members in the Eastern Cape



“ I WANT TO THANK WORLD VISION AND FORD FOR BRINGING CLEAN WATER TO MY SCHOOL. UNCLEAR WATER MADE ME SICK MANY TIMES BUT SINCE I STARTED TAKING CLEAN WATER, MY CONDITION HAS IMPROVED.”

PROGRAM BENEFICIARY

Volunteering has always been an integral part of Ford's commitment to making a positive impact on society. Through the Ford Volunteer Corps, we provide opportunities for employees to support service projects in the communities where they live and work.

Launched by Bill Ford 15 years ago, the *Ford Volunteer Corps* is a global network

of current and retired Ford employees who serve on the front lines to strengthen the communities in which we do business.

Since 2005, Ford volunteers in six continents have logged more than 1.4 million hours of service to help feed the hungry, provide clean water, build homes, renovate schools, mentor young people and protect the environment.



“ THIS IS AN OPPORTUNITY FOR PROFESSIONAL AND PERSONAL GROWTH. I HAVE ALWAYS BEEN INVOLVED WITH VOLUNTEER WORK, AND IT IS GREAT TO WORK AT A COMPANY WHERE A LIFE GOAL OF HELPING OTHERS IS FULFILLED THROUGH COMPANY INITIATIVES.”

EMANUELA CARVALHO DA SILVA, ANALYST, FORD HUMAN RESOURCES, BRAZIL

VOLUNTEERING IN 2019

17,000
EMPLOYEES

1,400+
PROJECTS IN 37 COUNTRIES

117,000
VOLUNTEERING HOURS

\$1M+
FOR TOOLS AND SUPPLIES FROM FORD FUND



Thirty Under 30

Ford's Thirty Under 30 leadership program empowers younger employees to work with philanthropic organizations, learn how they operate and offer insights on how they might better connect with future donors and volunteers. Each year, 30 diverse employees from the United States, Canada and now Mexico take time away from their jobs to focus on challenging social issues facing their communities. The [2019 class](#) worked with community development organizations to create potential solutions to neighborhood concerns such as homelessness, affordable housing, economic development and basic services.

Senior Executive Mentoring

- Our one-day MentorMe sessions match suppliers with senior executives from Ford and other partner organizations, to help assess their challenges and opportunities, and provide feedback to enhance leadership and communication
- The year-long MentorWE program matches female business owners with industry peers and offers them tailored advice from mentors, corporate leaders and other experts

Employee Programs

A signature program of the Ford Volunteer Corps, *Global Caring Month*, provides a concentrated 30-day focus on community service each September. In 2019, *Ford's Legal Alliance for Women* spearheaded a global effort to assist community organizations that empower women and girls. Volunteers from more than 70 law firms joined Ford volunteers working at homeless shelters and food banks, and offered pro bono legal work to help make people's lives better. The effort brought together volunteers from 30 U.S. states, as well as Argentina, Brazil, Germany, Mexico, Spain, Thailand, the U.K. and Venezuela.

Every spring, hundreds of volunteers across Europe take part in *Vibrant Volunteer Week*, a week of service in the communities where they live.

PROTECTING OUR PLANET

We're making a positive contribution to the world around us by reducing the emissions associated with the use of our vehicles, responsibly managing our operations and encouraging best practices among our suppliers.

“WE BELIEVE THAT MAKING GREAT VEHICLES AND MAINTAINING A STRONG BUSINESS DON'T HAVE TO BE AT THE COST OF PROTECTING THE PLANET. THESE PRIORITIES ARE DEPENDENT ON EACH OTHER AND AREN'T MUTUALLY EXCLUSIVE. TO HELP US ACHIEVE OUR ASPIRATIONS, WE HAVE SET OUT SOME AMBITIOUS GOALS THAT WILL MOVE US TOWARD A CARBON-NEUTRAL FUTURE.”

BOB HOLYCROSS

VICE PRESIDENT, CHIEF SUSTAINABILITY, ENVIRONMENT AND SAFETY OFFICER



We're striving to become a carbon-neutral business.

Climate change is a global challenge that affects us all. In response, we aspire to achieve carbon neutrality by 2050.

We're electrifying the future.

We are offering electrified versions of our most popular nameplates and have helped create North America's largest EV public charging network.









We're switching to renewable energy.

By managing energy responsibly and moving toward locally sourced renewable power, we will create positive environmental benefits.

We're preserving the planet's valuable natural resources.

As well as reducing waste, avoiding freshwater for operational use and phasing out single-use plastics, we're exploring ways to use renewable and recycled materials in our vehicles.

OUR ASPIRATIONAL GOALS

-  We aspire to achieve carbon neutrality by 2050.
-  We aspire to achieve zero air emissions from our facilities.
-  We will use 100 percent locally sourced renewable energy for all manufacturing plants globally by 2035.
-  We will make zero water withdrawals for manufacturing processes.
-  We will use freshwater for human consumption only.
-  We will achieve true zero waste to landfill across our operations.
-  We will eliminate single-use plastics from our operations by 2030.
-  We aspire to only use recycled and renewable plastics in our vehicles globally.

Sustainable Development Goals

Through our work in protecting our planet, we are contributing to the following United Nations Sustainable Development Goals:



CLIMATE CHANGE STRATEGY

Climate change was identified as one of the most important issues in our latest salient human rights issues due to the impacts of extreme weather events, rising sea levels, droughts and water shortages. Our responsibility for reducing GHG emissions starts with the use of our vehicles.

 Climate change is a [salient human rights issue for Ford](#).



OUR GOAL

We aspire to achieve carbon neutrality by 2050.

Doing our share to meet the collective challenge of climate change is a key responsibility and a strategic priority for Ford. As part of our goal to be the world's most trusted company, we are strengthening our commitment to limit the global temperature increase in keeping with the Paris Agreement, through our aspiration to achieve carbon neutrality by 2050, with interim targets that address the urgency of climate change as well as regional differences.

For more than a decade, we have developed a comprehensive approach that helps us address the issues associated with our changing climate.

We are focusing on three main areas globally that account for about 95 percent of Ford's carbon emissions:

- Vehicle use
- Our suppliers
- Our factories

Our strategy is also shaped by external factors, including government policies, physical risks such as extreme weather and other effects of climate change, market trends and the growing desire among consumers for more sustainable vehicles. In terms of our supply chain, our initial approach will include select Tier 1 suppliers. Factory emissions include both Scope 1 and 2 emissions.

We are working to develop targets approved by the Science Based Targets initiative (SBTi) for Scope 1, Scope 2 and Scope 3 (use of sold products). As part of this effort, we will develop and report on interim targets in our future sustainability reports.

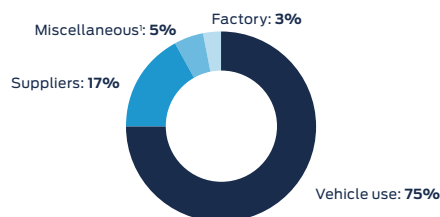
Why 2050?

Achieving global carbon neutrality by no later than 2050 strengthens our commitment to the Paris Agreement and is a natural evolution of our current approach. However, the challenge of reaching the 2050 goal for our industry and our company should not be



“WE'RE COMMITTED TO ADVANCING TECHNOLOGIES TO MITIGATE OUR CO₂ FOOTPRINT AND CREATING A POSITIVE IMPACT IN SOCIETY. FORD WORKS CLOSELY WITH REGULATORS AND TECHNOLOGY EXPERTS TO FIND WAYS TO REDUCE EMISSIONS FROM OUR VEHICLES, IMPROVING AIR QUALITY WHILE MEETING CONSUMERS' EXPECTATIONS.”

CYNTHIA WILLIAMS, GLOBAL DIRECTOR, SUSTAINABILITY, HOMOLOGATION AND COMPLIANCE

2019 FORD CO₂ EMISSIONS (CDP)

underestimated. Enormous changes will be required to decarbonize the global energy and transportation systems.

While it will take time for infrastructure to be updated, the technology to become affordable and other obstacles to be addressed, we expect the goal of carbon neutrality to be reached in different product segments and regions at different times. For example, we expect passenger vehicles to be carbon neutral before larger commercial vehicles with more demanding duty cycles. Given their progressive policies, we expect the EU, California and other U.S. states following California's lead to be carbon neutral before the rest of the world. Our interim targets will reflect these differences.

It is important to note that carbon neutrality can be achieved using emission reductions and carbon offsets. Our philosophy is to focus on emission reductions. We are not planning to use carbon offsets for our light duty vehicles, although they may sometimes be necessary, especially for medium- and heavy-duty vehicles and in less developed regions of the world.

We recognize that to be successful, we need many external factors to be aligned with our efforts. These include government policies, technical solutions, the green grid and market trends such as energy price fluctuations and changes in consumer demand. We will monitor and advocate for key enablers that support our

goal of carbon neutrality, including carbon pricing systems. To achieve this ambitious and complex goal, we are committed to serving as a positive force in increasing the collaboration required between all stakeholders.

How We Developed Our Current Approach

Since the introduction of our climate science-based glide path for light-duty vehicle CO₂ reductions in 2007, we have updated the glide path about every five years to capture the latest climate science and our progress. Our original model was based on 450 ppm CO₂ stabilization, and in 2017, we moved to a 2°C temperature stabilization pathway. Our glide path approach is as follows:

- Based on climate science and modeling by recognized authorities, including the International Energy Agency (IEA), we developed a model of global and light-duty vehicle (LDV) CO₂ emissions from different regions
- We calculated the 2°C stabilization emission reduction levels for LDVs over time, resulting in "CO₂ glide paths" for the LDV sector that take into account regional differences in vehicle size and fuel consumption, biofuel availability and market growth
- We then calculated Ford-specific glide paths (CO₂ reduction goals) for our new vehicle lineups across our major operating regions, and applied the methodology to determine reduction targets for our facilities

Our CO₂ model is not intended to provide the "answer," but a range of possible vehicle and fuel solutions in a carbon-constrained world. Our reduction targets are an approximate guide to cumulative CO₂ reduction, rather than a precise limitation of annual emission rates.

In 2019, we began to examine our climate strategy using human-centered design,

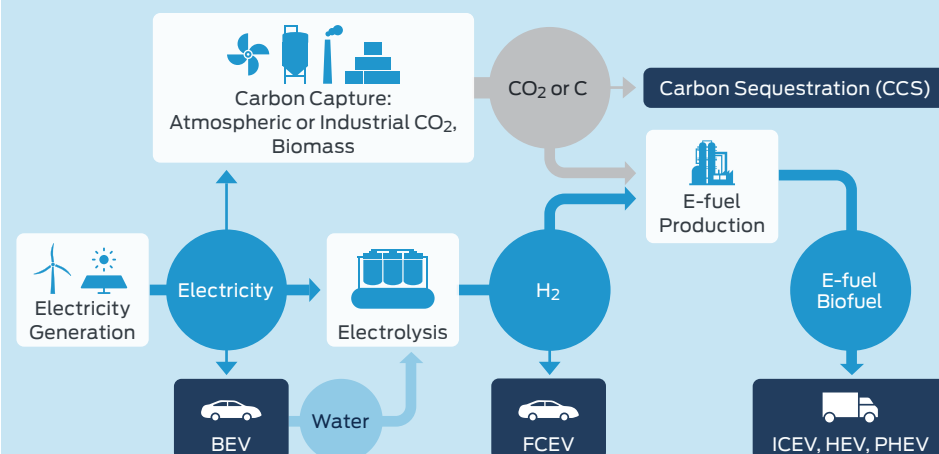
to see if there was a better approach to integrate the wants and needs of consumers, the possibilities of technology and the requirements for business success. A team from across functions and regions (the United States, Europe and China) met regularly to formulate our carbon-neutral approach, analyzing information on the environment, customers, technology, legislation, energy, competitive approaches, life cycle assessments (LCAs) and other trends. The team has developed a framework for success that includes metrics that were reviewed and endorsed by management to ensure the integration of carbon neutrality into company processes.

We are pursuing vehicle-use CO₂ targets consistent with carbon neutrality and the SBTi. We will continue to use our model to conduct sensitivity studies on how our pathway is affected by global changes such as economic conditions, the availability of renewable, carbon-neutral electricity and fuels, and regulations. As the factors change and as climate science develops, we will further refine

and adjust our science-based CO₂ targets and explore how best to factor in non-CO₂ emissions.

To reach this long-term aspiration, we need to prepare ourselves in the short and mid term. We regularly review our vehicle development plans to assess how they align with our metrics for reducing CO₂ emissions. While achieved reductions will vary from year to year due to external factors that are outside of our control, we are improving the efficiency of conventional and hybrid electric vehicles (HEVs) and prioritizing a carbon-neutral portfolio that is key for the future. Depending on infrastructure, technology development, policy and customer acceptance, our long-term carbon-neutral portfolio will be powered by some combination of renewable, carbon-neutral electricity, hydrogen and fuels (biofuels and e-fuels). Fossil fuels may also continue to have a place in combination with carbon capture and sequestration technology (see graphic below).

Carbon-Neutral Powertrain Options



Future carbon-neutral transportation will be powered by a combination of electricity, hydrogen, e-fuels and biofuels, and/or fossil fuels with CCS.

BEV – battery electric vehicle, FCEV – fuel cell electric vehicle, ICEV – internal combustion engine vehicle, HEV – hybrid electric vehicle, PHEV – plug-in hybrid electric vehicle

¹ Miscellaneous is total Scope 3 less vehicle use and purchased goods (i.e., upstream and downstream transportation and distribution, business travel, capital goods, franchises).



Ford Participates in the Climate Leadership Conference in Detroit

In March 2020, Ford Motor Company participated in the Climate Leadership Conference in Detroit, Michigan. Business executives, elected officials, nonprofits and members of academia participated in educational sessions, roundtable discussions and policy briefings to explore potential solutions that address climate change.

At the event, Bob Holycross, Vice President, Chief Sustainability, Environment and Safety Officer, spoke about Ford's vision for a more sustainable future, including our GHG framework with California. He also outlined our commitment to comprehensive, industrywide policies that protect the environment and promote technology innovation.

To realize this portfolio, we are investing heavily in vehicle electrification, actively pursuing fuel cell solutions for the appropriate segments and exploring renewable fuels. In the transition period, it will be important to remain financially viable and keep in step with consumer demand while finding ways to encourage market growth of our expanding zero-emission vehicle (ZEV) portfolio. Although we don't presently have all the answers, we are committed to achieving our goal.

A Commitment to Transparency

Climate change is a global challenge that affects us all and its societal implications are profound, making it a salient human rights issue and a strategic priority for Ford, as well as for our stakeholders.

In an effort to increase transparency about the resiliency of our climate change strategies, we've produced our second Climate Change Scenario Report in response to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), to which we are now formally committed. This report outlines our ambition to achieve carbon neutrality by 2050, the climate scenarios we have developed internally, the resiliency of our strategies to those scenarios, and how we monitor and review the impacts of climate change on our strategies.

ACTIONS TAKEN NOW AND IN THE NEAR FUTURE...

- Remain Financially Viable
- Address Urgency
- Prioritize Carbon Neutral Portfolio Development
- Connect with Customers
- Encourage Market Development (Communicate, Advocate & Partner)
- Monitor Key External Enablers

...LEAD TO US ACHIEVING OUR GOALS IN THE FAR FUTURE

Aspirational Goal
To Achieve Carbon Neutrality by 2050

TO DRIVE COLLABORATION AND PROGRESS TOWARD OUR NEW CARBON-NEUTRALITY GOAL (SEE GRAPHIC ABOVE), WE HAVE JOINED THE CEO CLIMATE DIALOGUE AND THE CLIMATE LEADERSHIP COUNCIL IN THE UNITED STATES, AND SIGNED UP TO THE NEW DEAL FOR EUROPE INITIATIVE TO DEVISE A COMPREHENSIVE SUSTAINABLE EUROPE 2030 STRATEGY.

REDUCING OUR VEHICLE FOOTPRINT

To reduce the CO₂ emissions associated with the use of our vehicles, we are committed to making more efficient technologies and lower-impact vehicles accessible on a global scale.

 Air quality is a salient human rights issue for Ford.

We take a portfolio approach, offering smarter choices for improving fuel efficiency and vehicle CO₂ emissions across three areas (see table on page 36).

Ford's aim is to achieve carbon neutrality from our vehicles by 2050. Our global fuels migration path and our technology migration plan are based on delivering high-quality vehicles that consumers want while responding to the risks associated with climate change.

Reducing vehicle carbon emissions is challenging. Over the past decade, consumer preference has shifted away from cars, and toward trucks and SUVs, as fuel prices have remained low. In 2019, sales data shows that 68 percent of our U.S. customer base preferred a truck to a car. During this shift, we have improved fuel efficiency across several individual nameplates significantly. From 2012 to 2019, fuel economy for the Ford F-150 improved by 16 percent, the Ford Escape

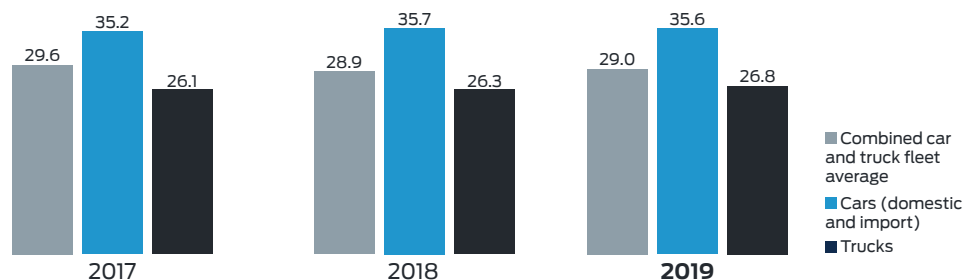
by 14 percent and the Ford Expedition by 30 percent in the same timeframe. We will continue to enhance the fuel efficiency of our light and medium duty truck lines by offering full battery (BEV) and hybrid (HEV) electric models of our flagship nameplates including the F-150, Explorer and Escape.

We have demonstrated our commitment to doing the right thing by pursuing a voluntary agreement with California in which we commit to more stringent vehicle emission reductions than the Federal regulations require.

For the foreseeable future, internal combustion engine (ICE) vehicles will continue to play a role in most markets. With U.S. fuel prices staying low in recent years, customers are favoring attributes such as performance, connectivity and infotainment above fuel efficiency. Nonetheless, in line with our beliefs and our strategy, we continue to improve fuel economy and reduce CO₂ emissions across our portfolio to minimize the environmental impact associated with their use.

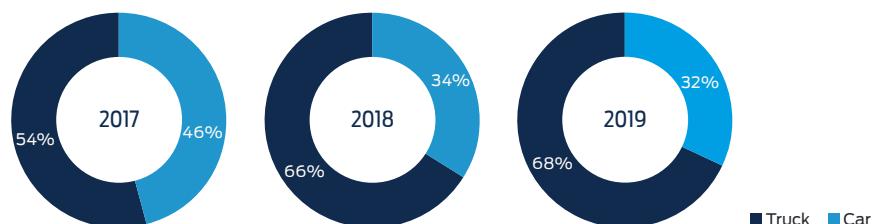
However, traditionally powered vehicles will eventually be displaced by electric and other low-emission options as technologies and infrastructure develop, and as some countries and cities place restrictions on ICE vehicles. We're already scaling up the number of electrified models in our global fleet, including our new, all-electric Mustang Mach-E and Transit, as well as creating North America's largest EV public charging network.

FORD CAR AND TRUCK FUEL ECONOMY (mpg)²



² Calculated using the Corporate Average Fuel Economy (CAFE) drive cycle standards. Does not include A/C or Off-Cycle credits. Includes 0.2 mpg flex-fuel vehicles (FFVs) credit.

U.S. CUSTOMER PREFERENCES



OUR PORTFOLIO APPROACH TO VEHICLE EMISSIONS

VEHICLES	FUEL	CUSTOMERS
Affordable, accessible lower-emission options: <ul style="list-style-type: none"> • Electrified vehicles • New engine/transmission technologies • Aerodynamic improvements • Weight reductions • Advanced powertrain options 	Developing vehicles that use lower-emission fuels: <ul style="list-style-type: none"> • Electricity • Renewable fuels • Compressed natural gas (CNG) • Liquefied petroleum gas (LPG) • Hydrogen 	Providing options for different vehicles and fuels, and how those vehicles will be maintained Promoting “eco-driving” through training, information and in-vehicle technology

TAKING A LIFE CYCLE APPROACH

We continue to explore the impacts of our vehicles and services over their entire life cycle. This holistic approach helps us reduce our environmental footprint through the materials and energy we use to make our vehicles, and the emissions they generate during use.

We use a range of analytical tools to identify and measure the potential environmental and cost impacts of our vehicles and services over their life cycle, from the acquisition of raw materials, through vehicle production, distribution and use, to end-of-life disposal or recycling.

In terms of overall impact, vehicle use (operation) is the main source of life cycle emissions. Use-phase CO₂ emissions depend on many factors, including the energy source and the way the vehicles are driven. Using the GHG Protocol methodology, as well as actual vehicle testing, to estimate emissions from

vehicle use, we calculate that our sold vehicles produce 135 million metric tons of CO₂ emissions.

Our focus is on improving tailpipe or tank-to-wheels (TTW) emissions³, and we continue to study well-to-wheels (WTW) impacts in keeping with our carbon-neutrality aspiration. This includes the production (well-to-tank, WTT) and consumption (TTW) of fuel during vehicle use. WTW emissions vary with vehicle, engine type and energy source.

When comparing vehicles, diesels generally have lower lifetime WTW GHG emissions than their gasoline-powered equivalents and, in vehicles with alternative powertrains, WTW CO₂ emissions vary with how carbon intensive the fuel production process is. Therefore, lower-carbon options such as BEVs and plug-in hybrid electric vehicles (PHEVs) are more beneficial when the electricity comes from renewable sources such as wind or solar power.

We acknowledge the fact that WTT impacts are part of the total vehicle life cycle; however, these emissions are beyond our direct control. We therefore look to address these impacts in collaboration with a range of partners, including fuel and electricity producers, infrastructure developers and governments.

Life Cycle Assessment Research

Although LCA is a valuable tool for assessing and comparing materials and technologies, its complexity limits how many vehicles we can assess.

We are studying the energy and CO₂ emissions embedded in automotive parts produced from lightweight carbon fiber composites and comparing them to any estimated fuel and GHG emission savings during vehicle use.

IMPROVING FUEL ECONOMY

We use a variety of approaches to improve the fuel economy of our vehicles, guided by our Global Fuels Migration Path (see table on next page). Improving fuel economy goes hand in hand with our work to scale up electrification.

Advances in Engine and Transmission Technologies Gasoline Engines

Thanks to turbocharging and direct fuel injection, our EcoBoost® engine range is the flagship of our efforts to improve fuel efficiency and reduce CO₂ emissions in our gasoline-powered vehicles. Award-winning, fuel-saving EcoBoost technology is now available on more than 80 percent of our nameplates, and has now been used in 8 million engines worldwide.

We are developing new technologies to improve engine performance, such as advanced boosting, reduced friction, and advanced fuel injection and ignition. We also continue to assess how low-carbon renewable fuels can help reduce CO₂ emissions as we bring electrified and hybrid models to market (see table).

GHG (CO₂EQ) SAVINGS VS. PISI GASOLINE (E10) IN THE UNITED STATES

POWERTRAIN/FUEL	TTW	WTW
DISI/E10	13%	13%
HEV/E10	28%	28%
PHEV/E10 ^{1,2}	69%	44%
BEV/grid-average electricity	100%	64%
BEV/renewable electricity	100%	100%
E85 ³	2%	32%
CNG	24%	21%
LPG	15%	16%
FCEV ⁴	100%	55%
Diesel	14%	16%
B20 ⁵	14%	26%
HVO ⁶	20%	90%
DME ⁷	23%	69%

Reference:

GREET 2019 (<https://greet.es.anl.gov/>, 2020 simulation)

1 U.S. average grid electricity mix.

2 PHEV assumes 50 percent all-electric operation.

3 Ethanol from corn.

4 Hydrogen from steam methane reforming of natural gas at a central plant.

5 Biodiesel from soy.

6 Hydrotreated vegetable oil made from used cooking oil (ref. internal studies).

7 Dimethyl ether made from landfill gas.

Diesel Engines

We have continued to drive the benefits of advanced diesel engine technology through our leading EcoBlue® range. In specific markets and segments, such as light commercial vehicles and heavy-duty vehicles, modern diesel engines offer reduced CO₂ emissions and fuel consumption, especially with heavy loads, and can achieve 20–30 percent better fuel economy than comparable gasoline engines.

In North America, we're offering two advanced diesel engines. The 3.0-liter Power Stroke is the first diesel engine for the F-150, and the 6.7-liter Power Stroke epitomizes the strength of the Built-Tough F-series trucks. Both engines demonstrate the class-leading fuel efficiency and performance of progressive diesel engines.

3 TTW describes the use of fuel in the vehicle and emissions during driving; WTT describes the production of the fuel to its supply at the charging point or fuel pump; WTW refers to the whole chain from fuel production to vehicle use.

In Europe, the new 2.0-liter Ford EcoBlue diesel has now completed its rollout across the passenger car fleet, bringing with it not only the refinement and performance traditionally associated with Ford diesel, but also emission control solutions capable of addressing the challenge of Real Driving Emissions (RDE). 2019 saw the production of the millionth Ford EcoBlue engine.

Our advanced diesel engines are already compatible with biodiesel. For the Scandinavian market, we approved commercial vehicles equipped with the 2.0-liter Ford EcoBlue engine to use hydrotreated vegetable oil (HVO) as a biodiesel fuel. HVO, based on waste including used cooking oil, is able to reduce CO₂ emissions up to 90 percent on a WTW basis. We will continue to focus on new sustainable fuels such as DME (dimethyl ether).

GLOBAL FUELS MIGRATION PATH

To support global climate stabilization, we have developed a fuels roadmap to guide our efforts. This informs how we migrate our vehicle, powertrain and fuel options toward lower CO₂ emissions and improved fuel efficiency.

FUEL OPTION	NOW (2020–2021)	NEAR (2022–2026)	FAR (2027+)
Gasoline and Diesel	Growth of fossil fuel availability continues with developments in extraction technologies	Gasoline/diesel fuel properties improvements facilitating efficiency improvements and carbon reductions	Further gasoline/diesel fuel properties improvements to support advanced vehicle technologies driving further efficiency improvements and carbon reductions
Electricity (HEV, PHEV, BEV)	Electricity grids start to transition to low-CO ₂ future Implementation of renewable energy, including solar and wind	Electricity grids continue to transition to low-CO ₂ future Grid/infrastructure and standardization support expansion of PHEVs and BEVs	Clean electricity further enhances the benefit of PHEVs and BEVs
Renewable Fuels	First-generation biofuel production increases	Renewable fuel capacity expands in selected markets Second-generation biomass-based fuel production technology matures E-fuels become available in limited quantities (e-methane, e-methanol/e-DME, e-diesel)	Renewable fuel capacity expands in all markets Greater contribution by second-generation biomass-based fuels E-fuel availability increases
CNG, LPG and DME	CNG and LPG available in limited markets Bio-methane blended into CNG supply in Europe	CNG expands in commercial fleets CNG vehicles capable of using 100 percent bio-methane and e-methane, or blended with CNG Availability increases with demand and production capacity Increasing development of renewable DME for compression ignition engines	CNG and DME from alternative/renewable sources Increasing fraction of liquid renewable hydrocarbons in fuel portfolio
Hydrogen	Steam reforming of natural gas	Increased share of hydrogen from renewable sources	Further increased share of hydrogen from renewable sources

CNG: Compressed natural gas
LPG: Liquefied petroleum gas

DME: Dimethyl ether
E-fuels (electro-fuels) are produced from renewable electricity and carbon from biomass or CO₂

2019 SAW THE PRODUCTION OF THE Millionth FORD ECOBLUE ENGINE

Advanced Transmissions and Drivelines

We continue to advance our front- and rear-wheel-drive transmissions to increase efficiency and improve vehicle performance, and we are further developing low-friction, all-wheel-drive systems. The 10-speed automatic transmission is now used in our new Ford Expedition and Lincoln Navigator, improving powertrain efficiency and vehicle performance. Additionally, our new modular hybrid transmission version of the 10-speed enables the hybridization of our large rear-wheel-drive vehicles, including the F-150.

Reducing Vehicle Weight

We use advanced lightweight materials wherever practicable to improve fuel economy and increase payload and towing capability. By switching to aluminum, we reduced the weight of the 2018 Lincoln Navigator by 200 pounds, the 2018 Ford Expedition by 300 pounds and the 2017 Ford Super Duty by 350 pounds.

We've also made progress with graphene, a light, carbon-based material 200 times stronger than steel. We already use it in the Ford F-150 and Mustang, and will eventually incorporate graphene-reinforced components into all our vehicles.

ALTERNATIVE FUELS AND POWERTRAINS

Our plan to develop sustainable technologies includes researching and developing alternative powertrains and fuel options across all our vehicles, giving customers more choice. In particular, we are launching electrified versions of all our most popular nameplates, including the all-electric Mustang Mach-E.

The All-New, All-Electric Mustang Mach-E

For the first time in 55 years, Ford is expanding the Mustang lineup with the all-new, all-electric Mustang Mach-E SUV, which will feature a new infotainment system and connected vehicle technology. The Mustang Mach-E embodies the Mustang spirit and brings fun, guilt-free, zero-emission driving to life.



VEHICLES POWERED BY ALTERNATIVE FUELS

	RENEWABLE BIOFUEL VEHICLES	CNG, LPG AND DME VEHICLES	FCEVs
Fuel	<p>Ethanol, made from fermented corn sugars or sugar cane, is usually blended with gasoline (e.g., E10, E15, E27 or E85); ethanol from non-food feedstocks is technically feasible</p> <p>Renewable diesel fuels made from soy, canola, rapeseed, corn or palm oil, or animal fats, and mixed with fossil diesel. Biodiesel (FAME) typically has lower blends (B7, B20), while HVO can be blended at higher concentrations (R33).</p>	<p>CNG</p> <p>LPG</p> <p>DME under investigation</p>	<p>Hydrogen fuel cell system – converts stored hydrogen to electricity</p>
Benefits	<p>Biofuels made from renewable resources may reduce CO₂ emissions</p> <p>Next-generation biofuels made from plant stems and leaves, waste, or used cooking oil reduce competition for food crops</p>	<p>Lower CO₂ and life cycle GHG emissions than gasoline or diesel vehicles</p> <p>Lower non-CO₂ emissions</p>	<p>Zero-emission EVs</p> <p>Only water and low-temperature heat are by-products</p>
Models	<p>E85 FFV: F-150, Super Duty, Transit Connect, Explorer (fleet), Kuga</p> <p>E100 FFV: Ka, EcoSport</p> <p>B20: F-150, F-250/F-350 Super Duty, Transit</p> <p>HVO: Transit in Europe</p>	<p>Wide range of commercial vehicles with gaseous prep kits: F-150, F-250, F-350, Transit Connect, E-series cutaway, F-X50 chassis cab</p> <p>Fiesta LPG in Europe</p>	

The Mustang Mach-E will be available in North America and Europe with standard and extended range battery options with either rear-wheel drive or all-wheel drive. One configuration of the Mach-E SUV has a targeted Environmental Protection Agency (EPA)-estimated range of at least 300 miles.⁴

Other ZEVs include the Territory EV in China and an all-electric Transit in Europe

and North America for the 2022 model year for the United States and Canada.

[Watch a video about the making of the Mustang Mach-E](#)

Ford is investing more than \$11.5 billion in electrified vehicles through 2022. See the [Scaling Up Electrification](#) section for more information about the electrification of our most popular nameplates.



“THE ALL-NEW MUSTANG MACH-E IS THE NEW BENCHMARK FOR ALL-ELECTRIC VEHICLES. IT'S ALL ABOUT GUILT-FREE, ZERO-EMISSION DRIVING. IT'S A GAME-CHANGER.”

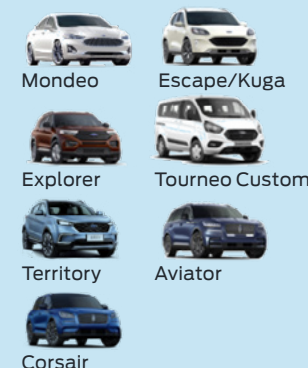
ULRICH KOESTERS, DIRECTOR, ELECTRIFICATION EUROPE

Announced Ford Global Electrified Lineup

Full Hybrid



Plug-In Hybrid



All-Electric



Additional, unannounced products are planned

Hybrid Vans Support Drive for Cleaner City Air

Our Plug-In Hybrid Ford Transit Custom van was the centerpiece of a year-long trial in London to see if PHEVs could help improve air quality in cities with clean air targets. Supported by a £4.7 million grant from the U.K.'s Advanced Propulsion Centre, a range of businesses covered 150,000 miles in 20 PHEVs to test whether they could carry out their typical duties while using zero-emissions power.

During the trial, 75 percent of the fleet's mileage in Central London and 49 percent in Greater London was completed using pure electric power. The results highlight how PHEVs can dramatically reduce tailpipe emissions in inner cities as the charging network develops, and give the flexibility to complete longer journeys when required.

Further trials in Cologne in Germany and Valencia in Spain will provide data from different cities, customers and vehicles.

Ford will investigate how innovative technology could help accurately track and increase the number of “green miles” driven by vehicles. These trials feature the FordPass Connect onboard cellular modem, and a plug-in device to enable geofencing and blockchain capabilities. With geofencing, whenever a trial vehicle enters a controlled zone, its electric-drive mode is triggered and the zero-emission green driving miles are documented. The blockchain technology enables secure, tamper-proof tracking and logging of vehicle emissions records, which makes it ideal for the PHEV pilot. Security, trust and transparency of emissions data are of paramount importance to all stakeholders in this project and are key for our vision of cleaner air in the city.

⁴ Based on full charge when configured with optional extended range battery and rear-wheel drive. Actual range varies with conditions such as external elements, driving behaviors, vehicle maintenance and lithium-ion battery age. Final EPA-estimated ratings are available in the 2020 calendar year.



Growing the Ford Brand in India

In October 2019, we announced a joint venture with Mahindra to strengthen the Ford brand in India. This development will help Mahindra and Ford to offer new products to customers faster than before and deliver profitable growth to both companies. To be fully operational in 2020, the joint venture will be operationally managed by Mahindra. The joint venture will focus on the utility vehicle segment and expects to introduce three new products under the Ford brand, beginning with a new midsize SUV that will have a common Mahindra product platform and powertrain.

ADDRESSING NON-CO₂ EMISSIONS

Internal combustion engine vehicles (ICEVs) emit hydrocarbons, carbon monoxide, nitrogen oxides and particulate matter during combustion. Acknowledging these pollutants can affect air quality, particularly in urban areas, we have identified air quality as a salient human rights issue. We are working to reduce emissions of non-CO₂ pollutants through our research, vehicle development and operations, in accordance with increasingly stringent standards around the world.

Standards Continue to Tighten

Ford complies with or exceeds all global criteria emission standards as they are introduced. The enforcement of such standards has led to lower vehicle emissions and improved air quality in many cities in recent decades.

Several countries, including Norway, the Netherlands, France and the U.K., are going further still, announcing plans to ban ICEVs or implement 100 percent ZEV sales targets to further improve air quality.

Zero-Emission and Zero-Impact Emission Vehicles

The EU Parliament has announced its intention of only registering ZEVs starting in 2040 as a contribution to the planned EU target of net carbon neutrality by 2050 (the EU Green Deal).

ZEV mandates are in place in California, 10 other U.S. states and China. ZEVs – namely BEVs or FCEVs – have no tailpipe emissions but, from a life cycle perspective, are not zero-emission. Upstream electricity generation emissions of air pollutants for a BEV can be comparable to ICE vehicle tailpipe emissions, although they are not typically emitted in urban areas.

With tailpipe emissions from ICE-equipped vehicles declining to very low levels, the concept of zero-impact emission vehicles (ZIEVs) is beginning to be discussed. ZIEVs have tailpipe emissions which, while not zero, have a negligible impact on air quality. ZIEVs may have a role to play in the lower emissions future ahead, enabled by ultra-clean internal combustion engine vehicles, EVs and FCEVs.

REGIONAL EMISSIONS STANDARDS

	UNITED STATES	EUROPE	CHINA	OTHER REGIONS
Already Compliant or Surpassing	Environmental Protection Agency (EPA) Tier 2 regulations California's Low Emission Vehicle II (LEV II) program	Euro 6 tailpipe emissions standards Phase II Euro 6d Temp Real Driving Emissions (RDE) standards	National stage-5 (China 5) emission standards National stage-6a (China 6a) in nine cities/provinces National stage-6b (China 6b) in five cities/provinces	India: Bharat Stage VI Brazil and Argentina: PROCONVE L-6 and standards based on Euro 5 Middle East: Standards based on Euro 2, Euro 3 diesel and Euro 4
Becoming Compliant as Phased In	EPA Tier 3 standards California's LEV III standards, closely aligned with the EPA's Tier 3 program	Euro 6 evaporative emissions standards Phase II Euro 6d Real Driving Emissions (RDE) standards	China 6a emission standards, effective nationwide July 2020	Brazil: PROCONVE L-7 Chile/Colombia: Standards based on Euro 6



FORD OF EUROPE IS COMMITTED TO MEETING THE STRINGENT EUROPEAN 2020 CO₂ EMISSIONS TARGETS, OFFERING A BROAD MIX OF HIGHLY EFFICIENT AND ELECTRIFIED VEHICLES WITH LOW CO₂ EMISSIONS, INCLUDING MHEVS, HEVS, FHEVS AND PHEVS."

DR. WULF-PETER SCHMIDT, DIRECTOR SUSTAINABILITY, ADVANCED REGULATION AND PRODUCT CONFORMITY

MOVING TOWARD A CIRCULAR ECONOMY

The materials used in a vehicle are an important element of its overall sustainability. We aspire to only use renewable and recycled plastic materials with lower life cycle impacts, that provide equivalent or better quality, appearance and performance as existing materials. Additionally, we have established an interim target of 20 percent renewable and recycled plastics by 2025 as we make progress toward a circular economy.



OUR GOAL

We aspire to only use recycled and renewable plastics in our vehicles globally.

Our Sustainable Materials Legacy

Henry Ford, our company's founder, pioneered research in using plant-based and recycled materials, and that spirit and legacy live on today at our Research Laboratory. Since 2000, we have introduced 12 industry- and world-first, new plant-based materials into our vehicles, and continue to introduce new applications using recycled plastics. Our long-term ambition is to create positive impacts through our material choices, in line with our aspirational goal.

Through our research, we have discovered new, robust natural-fiber-reinforced materials that improve fuel economy because they are lighter in weight. These plant-based materials sequester carbon, reducing global warming impacts, and require less energy to process. Many of them are waste products from the agricultural industry, helping us to achieve circular economy goals.

Recycled Materials

By using recycled materials, we are keeping waste out of landfill, as well as using fewer natural resources and less energy. Most metals are already recycled, but our most notable example of "closed loop recycling" is the return of high-value aluminum scrap to raw material suppliers for the fabrication of new sheet for Ford F-Series trucks. The new challenge in recycling is plastics, where we focus most of our efforts.

Ford is already a leader in using post-consumer discarded carpet in molded engine components and extension dash panels made using recycled tires. We continue to look at other innovative

by-products and waste streams, such as agave fiber from the tequila-making process or U.S. currency taken out of circulation, and we've even begun exploring how ocean plastics can be turned into automotive parts.

New Applications in 2019

We created the first injection-molded carbon canister, an under-hood emission control component, made from 100 percent post-consumer recycled carpet backing. Replacing fossil feedstock, the recycled resin reduces material cost by 25 percent, with no impact on performance. It is currently being used on more than 20 Ford programs globally. This application won the 2019 Society of Plastics Engineers Environmental Award.

We also launched a new material on an extension dash panel (a semi-structural plastic panel just under the windshield wipers), which is made from recycled carpet backing and recycled tire rubber. This application has given a new lease of life to around 11.9 million square feet of carpet and 26,250 pounds of tire rubber – two materials that have significant environmental challenges at end-of-life.



Society of Plastics Engineers Award.

SUSTAINABLE MATERIALS AT FORD

Soy Foam

- Launched on Mustang
- Now on all North American vehicles
- 5 million lbs of petroleum saved annually

Kenaf

- Launched on Escape door bolster
- 25% weight reduction

Rice Hulls

- Launched on F-150 wiring harness
- 45,000 lbs in first year

Coffee Chaff

- 20% lighter
- 25% less energy

2008

2010

2013

2014

2019

Wheat Straw

- Launched on Flex 3rd row storage bin
- Saves 20,000 lbs petroleum annually

Cellulose

- Launched on MKX armrest substrate
- 6% weight reduction
- Parts produced 20–40% faster



CLOSING THE LOOP HAS BEEN A PRIORITY FOR FORD FOR MORE THAN 20 YEARS. WE'RE WORKING WITH DIFFERENT INDUSTRIES TO EXCHANGE MATERIALS THAT OTHERWISE WOULD BE BY-PRODUCTS OR WASTE."

DR. ALPER KIZILTAS, TECHNICAL EXPERT, SUSTAINABLE AND EMERGING MATERIALS



BEING BETTER STEWARDS OF THE ENVIRONMENT MAKES GREAT BUSINESS SENSE. "GOING GREEN" IS VITAL TO US AND THE HEALTH AND WELL-BEING OF OUR COMMUNITY. FORD'S GO GREEN INITIATIVE IS PERFECTLY ALIGNED WITH OUR MISSION AT LAFONTAINE AND HELPS SHOWCASE THE EXTENSIVE GOLD LEED ASPECTS OF OUR DEALERSHIP. WE WERE THE FIRST FORD DEALERSHIP IN THE NATION TO BUILD A GOLD LEED-CERTIFIED DEALERSHIP AND LOOK FOR ADDITIONAL OPPORTUNITIES TO STRENGTHEN AND ALIGN OUR RELATIONSHIP WITH FORD."

SCOTT TARWACKI, GENERAL MANAGER, LAFONTAINE FORD

Renewable Materials

We were the first automotive company to launch soy-based foam in 2007, and since then, we have introduced new composites using castor oil, kenaf, wheat straw, rice hulls, coconut and tree fibers into our vehicles.

In the laboratory, we're continuing to research new materials including bamboo, agave (tequila) fiber, algae and even captured CO₂. Having introduced an award-winning tree-based cellulose composite into the consoles of the Lincoln Continental in 2018, we are currently testing whether it can be used in other new applications.

2019 Developments

We have recently started using rice hulls in composites for wiring channels. This material is 10 percent lighter, uses an agricultural by-product and meets all performance requirements while reducing our environmental impact. The natural high silica content of rice hulls reduces mildew and fungal growth, and offers better flame retardancy and lower moisture absorption than other natural fibers. The application offers farmers an additional revenue stream.

Eliminating Harmful Substances

We manage the materials we use in our vehicles to ensure we meet local and global regulations to eliminate or reduce a range of materials including hex chrome, lead, mercury and copper



Giving Vehicles a Caffeine Boost

Through a new research partnership with McDonald's USA, we will be using coffee chaff – the dried skin of the coffee bean – as an industry first in vehicles.

Together, we've found that chaff, a skin that comes off the bean during roasting, can be used for reinforcing components such as headlamp housings. Components made from coffee chaff will be about 20 percent lighter, require up to 25 percent less energy to mold and have significantly better heat resistance. McDonald's sells more than 1 billion cups of coffee each year, so there is a lot of chaff available.

Working alongside different companies, including McDonald's, we will continue to utilize materials that otherwise would be waste or by-products.

[Watch a video about our new partnership with McDonald's](#)



(in brake pads). We have phased out all EU REACH Authorization-listed substances that have reached their “sunset dates,” after which they cannot be used in the EU without authorization from the European Chemicals Agency (ECHA).

In addition, we lead, chair or participate in several industry association working groups, including the Global Platform for Sustainable Natural Rubber and Drive Sustainability, and advise governmental agencies about developments in substance restrictions.

Reducing End-of-Life Impacts

At least 95 percent of a vehicle is recoverable at the end of its useful life but getting the final fractions can be prohibitively energy- and labor-intensive. Nonetheless, we aim to recover as much as possible through materials selection and by engaging with vehicle dismantlers.

As part of our voluntary Go Green Dealer Sustainability Program, many U.S. service centers collect the headlights, bumpers and windshield-wiper motors removed during servicing. The parts are either cleaned and remanufactured, or dismantled and recycled for use in new applications. We also work with the U.S. EPA, state authorities, dismantlers, steelmakers and environmental groups to encourage the recycling of mercury switches in older vehicles. More than 15,750 pounds of mercury has been recovered to date.

SUSTAINABLE OPERATIONS

By improving the operations under our direct control, we aim to make a positive contribution to the world around us.

Our Science-Based Approach

Maximizing the efficiency of our operations is the key to lowering GHG emissions and energy use. We use the [Science Based Targets](#) initiative methodology to develop specific glide path targets for our manufacturing operations. These are based on climate science and the need to limit the rise in global temperature in line with the Paris Agreement and our aspirational goal to achieve carbon neutrality by 2050.

We are looking for ways to reduce our footprint by:

- Increasing our use of renewable energy
- Focusing on responsible water stewardship
- Achieving true zero waste to landfill across our operations, wherever practicable
- Eliminating single-use plastics from our operations

[Read more about how we're sharing best practices with our suppliers](#)

The Factory of Tomorrow

We've been innovating since the first moving assembly line, and today, our Research and Advanced Engineering Organization develops new technologies to improve our manufacturing processes and develop world-class vehicles.

For example, Ford was an early adopter of advanced 3D printing technology to help drive what we call the Factory of Tomorrow. This technology enables us to produce and test high-performance components on demand and we've already used it at scale to customize regional components on our GT500 and F-150 Raptor models without affecting mass production elsewhere.

[Watch a short video about 3D printing at Ford](#)

Leading on Climate and Water

Ford is one of 181 companies on the CDP Climate Change “A List” and we have retained our place on the CDP Water Security “A List” for the fifth consecutive year. We join only nine other U.S. companies in making both lists, and we are the only U.S. automaker on both.

For more information, see Ford's [response to the CDP](#).



ENERGY AND EMISSIONS

We're continuing to improve the way we use energy at our manufacturing facilities and other sites, to help address climate change. As well as using energy more efficiently, we are increasing our use of power from renewable sources, reducing the GHG emissions from our operations and making our transport more fuel efficient.



OUR GOALS

We will use 100 percent locally sourced renewable energy for all manufacturing plants globally by 2035.



We aspire to achieve zero air emissions from our facilities.

Our Strategy for Reducing Carbon

To reduce the energy and emissions footprint of our manufacturing processes, we continue to invest in state-of-the-art facilities and new production techniques, guided by our global Carbon Reduction Strategy for manufacturing and our aspiration to achieve carbon neutrality by 2050 (read more on [pages 33–35](#)).

To achieve our current target – an 18 percent absolute reduction in operational GHG footprint by 2023⁵ – our Plant Energy Team focuses our efforts on securing a reliable supply of energy for our manufacturing plants, making those facilities more efficient and collecting, storing and managing data and analytics.

We report our GHG emissions, participate in emissions trading schemes and adhere to a number of carbon reduction initiatives in the United States, Mexico, Canada, Brazil and other countries.

[Read more about our aspirational goal to achieve carbon neutrality by 2050](#)

Cutting GHG Emissions From Our Facilities

We achieved our previous GHG emissions target eight years early, through initiatives such as installing LED lights and updating our painting operations.

In 2019, we reduced our absolute emissions by 14.6 percent, or 0.64 million metric tons – the equivalent of more than 138,000 passenger vehicles being driven for a year.

Making the Switch to Renewable Energy

We have set an aspirational goal to achieve 100 percent locally sourced renewable energy for all manufacturing plants globally, without the use of credits, by 2035. This involves a procurement mix of wind, solar power, storage and hydro to replace fossil-based generation.

GHG EMISSIONS FROM OUR OPERATIONS

3.74

TOTAL EMISSIONS FROM FORD FACILITIES
(MILLION METRIC TONS)

0.70

EMISSIONS PER VEHICLE PRODUCED
(METRIC TONS)

⁵ Exceeding the requirement of the IEA ETP2017 Beyond 2°C Scenario (B2DS) pathway for Ford's manufacturing operations.



New Central Energy Plant

Our new state-of-the-art Central Energy Plant, located on the Research and Engineering campus in Dearborn, Michigan, will use significantly less energy and dramatically reduce the company's carbon footprint.

The plant will use 10 times less natural gas than a traditional boiler facility by producing steam as a by-product of the facility's turbines. Advanced chiller technology will contribute to a 35 percent reduction in energy use, while an insulated 5.3-million-gallon thermal energy tank will increase energy efficiency and reduce the facility's peak electricity use by 250 percent.

Completed in late 2019, the Central Energy Plant will be certified Leadership in Energy and Environmental Design (LEED) Gold for its environmentally conscious design and operation.

Ford supports the implementation of renewable energy where the project can be tied to the manufacturing facility, either directly or through the local distribution utility, to support local jobs, improve the local environment and add resiliency to the local grid.

Our Michigan Assembly Plant and Dearborn Truck Plant, as well as several new buildings on our Research and Engineering and Corktown campuses will be powered by 100 percent renewable energy by January 2021, using locally sourced wind energy through DTE Energy's MIGreenPower program. This will reduce our GHG footprint by 0.4 million metric tons annually.

We also have recently transitioned to 100 percent renewable electricity at our Greenfield Labs campus in Palo Alto, CA. This serves as the first step towards our 100 percent renewable energy goal on campus and offers EV drivers who charge on campus sustainable charging solutions.

[See how we're helping our suppliers reduce their impact](#)

Committed to Green Buildings

We continue to implement a range of best practices in our new facilities, from advanced water treatment and waste reduction systems to energy-saving technologies, continuing to minimize impacts on the environment.

Sustainability at Ford is moving beyond approaches for reducing negative impacts, and toward an ethos that catalyzes long-term positive impacts for employees, communities, economies and ecologies.

Our strategy facilitates the integration of cutting-edge thinking and approaches in Ford properties to achieve results that align with associated business goals:

- A commitment to the next generation of sustainability innovation, prioritizing positive impacts to the health and well-being of employees, communities, economies and the environment
- An increased focus on reducing embodied and operational carbon through a combination of energy efficiency and renewable energy strategies
- Reinforcing our image as a forward-thinking company attracting top talent and leading-edge strategic partnerships
- Using data-driven, science-based approaches for setting, achieving and communicating goals in six priority categories: health and well-being, atmosphere, materials, water, carbon, and soil and habitat

Logistics With a Lighter Footprint

From receiving incoming parts and components to delivering finished vehicles to our dealers, our logistics operations represent a significant opportunity to reduce our emissions.

Overseen by our Material Planning and Logistics organization but coordinated regionally, we look for ways to minimize the impacts of both inbound and outbound freight. Freight emissions depend on a number of factors, including the mode of transport used, equipment efficiency, distance traveled and network design (see graphic below).

We seek to reduce emissions by:


- Using more fuel-efficient and lower-carbon modes of transport
- Updating our fleets to meet the requirements of ISO 14001 and other regulatory standards
- Ensure component sourcing decisions take into account the shipping distance
- Improving route planning and the efficiency of our logistics network
- Measuring and reporting freight GHG emissions
- Optimizing the packaging used to protect components and vehicles in transit

REDUCING EMISSIONS FROM LOGISTICS

NETWORKS	DRIVERS	VEHICLES	OTHER TRANSPORT MODES
Improved route planning	Training in fuel-efficient driving techniques	New engine technologies	Using rail, sea and river transport to reduce road miles
Regional distribution centers to coordinate deliveries		Modifying equipment (e.g., deflectors, speed limiters)	Multi-modal solutions (e.g., "SWAP body" trailers for both road and rail)
Routes with several collection points		Packaging designs to increase payloads	
		Fewer trips for lower fuel consumption	

WATER USE

Water is vital to many aspects of our operations. We have a responsibility to use and manage water sources efficiently and sustainably, especially in water-stressed countries such as India, South Africa and Mexico.

 Access to water and sanitation is a [salient human rights issue](#) for Ford.



OUR GOALS

We will make zero water withdrawals for manufacturing processes.

We will use freshwater for human consumption only.

Our Water Strategy

Our long-term approach reflects the need to understand water challenges in their local context, with extraction policies and practices designed to make sure our operations do not adversely affect other users' access to water. Our strategy focuses on reducing water in manufacturing, using freshwater for human consumption only and making zero water withdrawals for manufacturing processes. See our progress on [page 12](#).

What Is Freshwater?

Freshwater is the main source of drinking water around the world and is recognized as essential for human life and well-being in GRI Standard 303. The GRI defines freshwater as surface water, but our definition is broader, including both surface water and groundwater. Our goal is to minimize our use of freshwater while aiming for a goal of zero – or even positive – impact on freshwater sources in the future.

Water Use at Our Facilities

FRESHWATER

Tap Water

Lake Water

River Water

Groundwater

Rainwater

NON-FRESHWATER

Wastewater
(from an offsite location)

Salt Water
(oceans and seas)

Depending on location, we use a variety of water sources in our operations. In the long term, we are committed to phasing out the use of freshwater in our manufacturing operations. We will achieve this by installing more non-water-based technologies, increasing recycling and reuse, and relying more on alternative sources such as other companies' treated wastewater.

Reducing Operational Water Use

The challenging target we have set ourselves is to reduce water use per vehicle by an additional 30 percent between 2015 and 2020. In 2019, we reduced our absolute operational water use by 13 percent since 2018 and by 70 percent since 2000 (saving more than 11 billion gallons).

Water reuse and recycling are occurring at plants around the world. To help us cut our water consumption further, we continue to incorporate more water-efficient processes and technologies. For example, at our Irapuato Transmission Plant in Mexico, internally treated and externally sourced non-potable water are used. In China, treated wastewater recycling systems have been installed at four assembly plants. And in the United

States, the Flat Rock Assembly Plant and Kansas City Assembly Plant have recycling and reuse systems to generate treated wastewater to supplement water use in paint shops.

[See how we're helping our suppliers reduce their impact](#)

13%

REDUCTION IN ABSOLUTE OPERATIONAL WATER USE SINCE 2018 AND 70% REDUCTION SINCE 2000, SAVING MORE THAN 11 BILLION GALLONS

REDUCING WASTE

Operating in a resource-intensive industry, the focus of our strategy is to optimize efficiency and create less waste. We reuse or recycle any waste we do generate wherever possible, rather than sending it to landfill, which provides us with an additional supply of valuable resources.



OUR GOALS

We will achieve true zero waste to landfill across our operations.

We will eliminate single-use plastics from our operations by 2030.

Meeting Our Waste Targets

We are targeting a 21 percent reduction in waste sent to landfill, a 15 percent reduction in general trash and a 10 percent reduction in waste generation, over the period 2018–2020. We also have an aspirational goal of eliminating single-use plastics from our global operations by 2030.

In 2019, Ford facilities around the world sent approximately 25,000 metric tons of waste to landfill, 26 percent more than in 2018.

During the year, 43 facilities and other Ford buildings in the Detroit area temporarily lost their zero waste to landfill (ZWTL) status as a result of the abrupt



“ONE OF THE WAYS THAT FORD SHOWS IT IS A COMPANY THAT CARES ABOUT ITS ENVIRONMENTAL IMPACT, IS THROUGH THE VALUE WE PLACE ON REDUCING FRESHWATER UTILIZED IN OUR OPERATIONS. WE HAVE ACHIEVED SIGNIFICANT WATER REDUCTIONS IN THE PAST, AND WE CONTINUE TO FOCUS ON IMPLEMENTING SUSTAINABLE PRACTICES THAT WILL BENEFIT OUR COMMUNITIES.”

TAMBERLYN SHELL, ENVIRONMENTAL COMPLIANCE ENGINEER, ENVIRONMENTAL QUALITY OFFICE

closure of a local waste-to-energy facility. Ford remains committed to delivering our ZWTL objectives, and has since regained ZWTL status for all 43 facilities. In the process, 14 new facilities acquired ZWTL status, bringing the total number of global ZWTL sites up to 102 from 88.

In addition to our focus on reducing waste to landfill at our facilities, we are focused on minimizing the amount of waste we generate.

Ford Farm

Our commitment to sustainability and the circular economy in our in-house food service business involves minimizing waste through recycling and composting, reducing our carbon footprint and eliminating single-use plastic.

We also design our menus with employee health and well-being in mind, with a focus on local, organic and sustainable suppliers, and choices that reflect local cultures and a wide range of dietary needs.



“PEOPLE WANT TO KNOW WHERE THEIR FOOD IS COMING FROM, HOW IT'S GROWN AND THAT IT'S SAFE TO EAT. WE'RE CHANGING THE WAY WE WORK PROVIDING HEALTHIER ALTERNATIVES AND INVITING PLACES. WE ARE CHANGING THE EMPLOYEE EXPERIENCE WHILE BEING MINDFUL OF THE GROWING POPULATION AND SHRINKING FARMLAND.”

MARK FREEMAN, GLOBAL FOODSERVICE STRATEGY MANAGER

Going for Zero

To ensure that more of our facilities reach ZWTL status, we continue to implement a range of waste reduction initiatives. These include:

- New technologies and programs that minimize waste
- Standardizing the tracking and sorting of waste to increase recycling and reuse
- Focusing on the five main sources of waste to landfill at each facility
- Working with suppliers to increase the use of eco-friendly packaging

[See how we're helping our suppliers reduce their impact](#)

Reducing the Impact of Packaging

Packaging is crucial for protecting components on their journey to our facilities, and having standardized containers and materials helps to optimize payloads and lower costs. In many locations, we have agreements with packaging providers so that containers are collected, stored and forwarded to other suppliers.

Working with suppliers, we always review how components and production parts will be packaged before we launch a new vehicle. Our packaging guidelines for North America and Asia Pacific require our suppliers' packaging to have at least a neutral (if not positive) environmental footprint, achieved through the use of 100 percent recycled, renewable or recyclable materials.



“IMPROVING WASTE SEGREGATION IS ESSENTIAL FOR US TO MEET OUR SUSTAINABILITY GOALS. AT FORD MANUFACTURING PLANTS, THROUGH PROGRAMS SUCH AS WASTE MANAGEMENT VISUAL AIDS AND ON-SITE WASTE RECYCLING AUDIT, WE ARE PROUD OF WHAT WE DO EVERY DAY TO REDUCE OUR ENVIRONMENTAL FOOTPRINT.”

XIAOXIAO YU, PLANT ENVIRONMENTAL CONTROL ENGINEER, ESSEX ENGINE PLANT, CANADA



Ohio Assembly Plant Wood Block Project

Our Ohio Assembly Plant (OHAP) implemented a project aimed at reducing waste to landfill by addressing one of its most significant landfilled waste streams – wood spacer blocks – which are used as frame supports during transportation. The blocks were constructed with rubber stapled to the wood, which did not allow for recycling. In 2018, this waste stream resulted in more than 300,000 pounds of waste sent to landfill.

The team investigated alternatives and ultimately identified one constructed solely of wood, and collaborated with all appropriate departments to ensure the block met all safety, quality and sourcing requirements. OHAP started using the new, recyclable block in 2019. This is a great example of doing the right thing, by identifying alternative solutions to difficult challenges.

MINIMIZING OUR SUPPLY CHAIN IMPACT

We rely on thousands of suppliers to provide us with materials, components and services for our vehicles. By sharing what has worked well at Ford, we can help them cut costs, improve quality and become more sustainable.

The supply chain in our industry is complex, with many tiers between material suppliers and manufacturers such as Ford. Our supply chain includes component suppliers as well as indirect suppliers of facilities, equipment, materials and services.

For certain raw materials such as tin, tantalum, tungsten, gold, cobalt, mica and rubber, suppliers are invited to support initiatives that improve due diligence, or are required to verify that the materials in the parts they supply to Ford have been sourced responsibly.

Our long-term objectives are to:

- Engage with our supply chain to understand our collective environmental footprint
- Work with selected suppliers through target setting and cascading best practices for reducing energy and water use, CO₂ emissions and waste
- Make mineral sourcing within our supply chain more transparent
- Improve the capacity of conflict-free smelters

Since 2003, we have conducted 1,186 third-party external supplier audits and 1,612 follow-up assessments globally across all commodities.

UNDERSTANDING OUR SUPPLIERS' IMPACT

As well as directly managing the impacts of our own facilities, we have a duty to help our suppliers reduce their environmental footprint.

To better understand our suppliers' GHG emissions and water use, we survey a selection of them every year, using the CDP Supply Chain program's Climate Change and Water Security questionnaires. These two surveys provide us with qualitative and quantitative information about how our production suppliers, as well as indirect suppliers of logistics and information technology services, manage environmental risks and maximize opportunities.

The selection of suppliers is based on their emissions or water intensity, their geographic footprint and the strategic nature of their relationship with Ford.

SUPPLIERS

	2018	2019
Integrating action on climate change into their business strategy	84%	89%
Reporting a water-related target or goal	81%	83%
Reporting an emissions reduction target or goal	73%	73%

Building Supplier Capability Through PACE

We can't tackle environmental issues alone and our impacts don't stop at the gate – the suppliers who make parts and components for us have their own impacts on the world around us. Our supply chain sustainability program, Partnership for A Cleaner Environment (PACE), is designed to reduce the overall environmental impact of Ford's key supply chain partners (see graphic opposite).

The PACE program enables us to share the best practice examples we've implemented across our business with 50 strategic suppliers so that their benefits

Supplier Requirements

Our Global Terms and Conditions, and other supporting documents, require suppliers and sub-contractors to comply with environmental requirements for all aspects of our product's life cycle. We ask our suppliers to extend the same expectations to their own suppliers.

- Acquisition of raw materials
- Manufacturing
- Packaging
- Distribution
- Operation
- Reuse/end-of-life considerations

For human rights requirements for suppliers, see [Responsible Sourcing of Raw Materials](#).

can be replicated. We encourage our Tier 1 suppliers to cascade the information through their own supply chains.

For example, PACE participants expect to save an estimated 470 million gallons of water in their operations from 2019 to 2030, according to data collected in 2020. This will be achieved through efficiency improvement projects such as recycling cooling water and considering life cycle costing when replacing water-using equipment. Suppliers in the PACE program also expect to save 680,000 metric tons of CO₂ over the next five years.

In addition to the full PACE program, Ford launched a new streamlined version in 2019, FastPACE, in the Asia Pacific region. With the success of participating FastPACE suppliers completing the Excel-based toolkit, which included hundreds of leading practices and actions to address air emissions, energy and water use, we plan to continue and expand the program.

Both PACE and FastPACE programs encourage suppliers to set and report progress toward long-term reduction targets.

OUR SUPPLY CHAIN

OPERATIONS	PRODUCTION SUPPLIERS	INDIRECT SUPPLIERS
\$110 billion global spend on goods and services	1,200+ Tier 1 supplier companies	10,000 supplier companies
60+ Ford-owned assembly and powertrain manufacturing sites ⁶	60+ countries	600+ commodities
	4,400+ supplier sites	
	100,000+ parts manufactured	
	500+ commodities sourced	

PACE: One Step at a Time



“IT'S IMPORTANT TO US AS A BUSINESS THAT WE MINIMIZE OUR IMPACT ON THE WORLD AROUND US. THAT CAN ONLY BE ACHIEVED WITH SUPPLIERS THAT ARE WILLING TO SHARE THAT RESPONSIBILITY AND WORK WITH US TO REDUCE OUR COLLECTIVE ENVIRONMENTAL FOOTPRINT.”

MARY ELLEN BRIDGES, PURCHASING MANAGER, SUPPLY CHAIN SUSTAINABILITY

⁶ Does not include joint ventures.

Our ABF Network

108 suppliers:

- 79 production suppliers and 29 indirect suppliers
- 14 of these are minority-, veteran- and women-owned suppliers

Of our 79 production suppliers:

- 100% have codes of conduct aligned with our Policy Letter 24
- 82% have governance systems covering their operations and supply chains

[Download a list of our ABF Suppliers](#)

This dialogue helps drive quality and innovation, identify synergies between businesses and encourages collaboration in areas such as ethical business practices, working conditions and responsible sourcing.

Collaborating With Industry Partners

To amplify our efforts and encourage collaboration throughout the automotive sector, we participate in several industry forums.



- As a founder of the AIAG Environmental Sustainability Advisory Group and member of its Greenhouse Gas Work Group, we have worked with other OEMs to develop supplier training programs covering GHG emissions, Scope 3 emissions and water management, with guidance on calculations and strategy development

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SUPPLIERS (64% OF FORD SPEND)
SURVEYED USING CDP CLIMATE CHANGE
QUESTIONNAIRE (83% RESPONSE RATE)

Honoring Supplier Excellence

At our 21st annual World Excellence Awards, held in May 2019, 53 suppliers from around the world received accolades for outstanding performance in the fields of safety, quality, sustainability, diversity and smart technology. Five supply chain partners also received Special Recognition awards.



- We were the first automaker to join the Responsible Business Alliance (RBA), and have participated in the Environmental Science Work Group to implement best practices and cross-industry collaboration. Having adopted the Validated Audit Protocol, we conducted 23 new audits across a range of suppliers in 2019 and helped them to improve working conditions. [Read more about the RBA audit process](#)
- Through the Suppliers Partnership for the Environment – a collaboration of automotive OEMs and suppliers with the U.S. EPA – we are working to advance responsible battery management at vehicle end-of-life, increase biodiversity and reduce waste

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SUPPLIERS (60% OF FORD SPEND)
SURVEYED USING CDP WATER SECURITY
QUESTIONNAIRE (78% RESPONSE RATE)



“LEAR IS COMMITTED TO DOING ITS PART TO ACHIEVE A SUSTAINABLE FUTURE FOR OUR ENVIRONMENT, OUR BUSINESS AND OUR CUSTOMERS. AS A SUPPLIER, LONG-TERM RELATIONSHIPS WITH OUR CUSTOMERS ARE ESSENTIAL, AND OUR PARTICIPATION IN FORD'S PACE PROGRAM ENABLES OUR ACCESS TO BEST PRACTICES, DRIVING COLLABORATION, TECHNOLOGY DEVELOPMENT, MUTUAL PROFITABILITY AND COLLECTIVE IMPROVEMENT OF THE GLOBAL AUTOMOTIVE ENVIRONMENTAL FOOTPRINT.”

JACK NUNES, GLOBAL VICE PRESIDENT, HEALTH, SAFETY, ENVIRONMENTAL MANAGEMENT AND SUSTAINABILITY, LEAR CORPORATION

Our ABF suppliers

We engage with our key strategic suppliers, representing about 65 percent of our annual spend, through our ABF to manage human rights issues with ABF suppliers:

- Ford verifies that they each have a code of conduct that aligns with our own Policy Letter 24
- Suppliers provide training to ensure employees understand and comply with the code of conduct
- Ford validates its processes to ensure ongoing alignment
- Suppliers verify that their own supply chain partners comply with our shared standards and expectations



CREATING TOMORROW, TOGETHER

We believe that the freedom of movement drives human progress. So, we're creating smart vehicles in a smart world to solve today's – and tomorrow's – mobility challenges.



I'M EXCITED BY THE ROLE THAT FORD CAN PLAY IN USING INNOVATIVE, DISRUPTIVE TECHNOLOGY TO MAKE THE WORLD BETTER. CONNECTIVITY, AUTOMATION, ELECTRIFICATION, DATA SHARING – THESE THINGS ARE CHANGING THE BUSINESS OF MOBILITY, AND MAKING US RETHINK OUR VALUE ADD AS A COMPANY."

HAU THAI-TANG

CHIEF PRODUCT DEVELOPMENT AND PURCHASING OFFICER

We are electrifying our most popular nameplates.

To meet the global demand for lower-carbon transport, we are delivering a growing portfolio of affordable hybrids, plug-in hybrids and all-electric vehicles.

We are investing in self-driving technology.

To help make a self-driving vehicle service commercially viable, we're investing in research, forging partnerships and testing the technology on the streets of several U.S. cities.

We're focused on cities and citizens.

To improve all aspects of urban transportation, we're exploring ways to enable vehicles, other road users and infrastructure to communicate with each other, and working in partnership with municipal authorities to solve their specific mobility issues.

We put customers at the heart of everything we do.

In today's increasingly connected world, customers expect more personalized experiences. So, we're reimagining every touchpoint and interaction to make their lives simpler, easier and more enjoyable.

We use data and analytics to drive innovation.

Having invested in creating connected vehicles, a key priority remains the harnessing of the data they generate and using it to create even better vehicles and services in the future.

OUR ASPIRATIONAL GOAL



We aspire to drive human progress by providing mobility and accessibility for all.

Sustainable Development Goals

Through our work in creating tomorrow, together, we are contributing to the following United Nations Sustainable Development Goals:



SCALING UP ELECTRIFICATION

Having committed to producing electrified propulsion options for all future Ford nameplates, we are investing more than \$11.5 billion globally in electrified vehicles (EVs) and charging infrastructure through 2022.

OUR ELECTRIFICATION STRATEGY

Global demand for cleaner transportation is rising with several countries, including China, India, France and the U.K., announcing plans to phase out vehicles powered solely by combustion engines and fossil fuels by 2040. In support of that goal, as well as

our aspiration to become carbon neutral by 2050, we plan to deliver affordable EVs at scale, focusing on China, Europe and North America.

The adoption of battery electric vehicles (BEVs) will increase as potential barriers, such as cost, vehicle offerings, charging infrastructure and consumer education, come down. The success of exciting and capable fully electric vehicles relies on leveraging our scale and technologies, amplifying the attributes our customers love, redesigning our business models and building alliances with key partners.

To support our electrification strategy, we are investing in manufacturing plants such as our state-of-the-art facility in Valencia, Spain, which will now make lithium-ion batteries as well as producing the new S-MAX Hybrid and Galaxy Hybrid models.

ANNOUNCED FORD GLOBAL ELECTRIFIED LINEUP

	FULL HYBRIDS (HEVs)	PLUG-IN HYBRIDS (PHEVs)	ALL-ELECTRIC (BEVs)
Propulsion Sources	ICE, electric motor with a lithium-ion battery system	ICE, electric motor with a high-voltage lithium-ion battery	High-voltage electric motor powered by a lithium-ion battery pack
Benefits	<p>When using the electric motor and battery system only (e.g., low speeds, short distances), no gasoline is used</p> <p>Can run on battery power, on ICE power, or both</p> <p>Regenerative braking system captures energy to recharge the battery</p>	<p>Battery can be charged from a household or public electric outlet</p> <p>When the battery is depleted, the vehicle functions as a standard HEV</p> <p>Accrues charge through regenerative braking</p> <p>Tailpipe emissions can reach zero when running on battery power</p>	<p>Zero CO₂ and other emissions during use</p> <p>Instant torque</p> <p>Battery can be charged from a household or public electric outlet</p>



Electrifying Our Vehicles

Our holistic approach includes electrifying our most popular nameplates, providing a profitable portfolio of hybrids, plug-in hybrids and all-electric vehicles to meet our customers' evolving needs and preferences, as outlined in the table on the previous page. These include our all-electric Mustang Mach-E in North America and Europe, an all-new Ford Explorer Plug-In Hybrid for customers across Europe, Ford Escape and Lincoln Aviator PHEVs, and a broad range of EVs in China, including the new Territory BEV.

Commercial vehicles are an important part of our plans. The all-electric Ford Transit is intended to help lead the transition to carbon neutrality and help businesses achieve their sustainability goals while helping cities improve air quality and reduce noise levels. There are also lower costs and possible vehicle tax incentives for owners when compared to internal combustion engine (ICE) vehicles. We plan to introduce the Transit, and an all-electric F-150 pickup, by mid-2022.

For further information, please see the [Improving Fuel Economy](#) section on page 36.

IONITY



Supporting Charging Infrastructure

One of the biggest barriers to customers considering an EV has been the fear of running out of power or the inability to find a charging site.

Addressing that concern, we're offering our all-electric vehicle customers in North America access to the FordPass Charging network, North America's largest EV public charging network. More than 13,500 places to charge and almost 40,000 charge plugs – more than any other automotive manufacturer – are accessible via the FordPass app.¹

Helping make charging an effortless experience for EV drivers in Europe, Ford has also joined several other manufacturers to create the IONITY consortium. Through this pan-European joint venture, we aim to build a network of 400 fast-charging stations in key locations by 2020, with the first ones already operational.



It's Electrifying: The Mustang Mach-E

For the first time in more than 50 years, Ford is expanding the Mustang lineup with the all-new, all-electric Mustang Mach-E, which brings to life how we are rethinking manufacturing, product development and people-centered design.

Coming to North America and Europe, the Mustang Mach-E SUV has a targeted EPA-estimated range of at least 300 miles,² and is estimated to add an average of 61 miles of range in approximately 10 minutes while charging on DC Fast Charging station with the extended range battery and rear-wheel drive.³

As well as high-performance, zero-emission driving, the Mustang Mach-E offers customers the SYNC[®] 4A communications system and the latest connected vehicle technology, including over-the-air update capability for quick and easy wireless upgrades that enhance quality, capability and convenience.⁴

Our wider efforts to improve charging access include:

- New Ford all-electric vehicles, including the Mustang Mach-E arriving in the U.S. at the end of 2020, coming with a Ford Mobile Charger that can charge using 120V and 240V outlets; for those with longer commutes or who want greater peace of mind, a Ford Connected Charge Station at home can fully power a vehicle overnight
- A collaboration with Amazon in the U.S. for installation services, from 240V outlets to the Ford Connected Charge Station
- Customers being able to monitor charging at home and easily find and pay for one-stop charging at FordPass Charging Network stations, through the FordPass app or in each vehicle's on-screen dashboard
- We are partnering with EV charging provider TELD and Anyo in China to extend access to public charging stations, with FordPass already connecting Ford owners with 150,000 public charging sites in more than 300 cities across the country



“FOR CUSTOMERS WHO OWN, OR ARE CONSIDERING, AN ELECTRIFIED VEHICLE, CHARGING AWAY FROM HOME IS A MAIN CONCERN. BUT BY OFFERING INDUSTRY-LEADING CHARGING ACCESS ACROSS NORTH AMERICA AND EUROPE, WE ARE ENABLING MORE CUSTOMERS TO CONFIDENTLY ENJOY THE BENEFITS OF OWNING AN ELECTRIC VEHICLE.”

MATT STOVER, DIRECTOR, CHARGING/ENERGY SERVICES

¹ Based on original equipment manufacturers (OEM)/automotive manufacturers that sell all-electric vehicles and have publicly announced charging networks. Department of Energy data used. FordPass, compatible with select smartphone platforms, is available via a download. Message and data rates may apply.

² Based on full charge when configured with optional Extended range battery and rear-wheel drive. Actual range varies with conditions such as external elements, driving behaviors, vehicle maintenance, and lithium-ion battery age. Final EPA-estimated ratings available in the 2020 calendar year.

³ Range and charge time based on manufacturer computer engineering simulations and EPA-estimated range calculation methodology. The charging rate decreases as battery reaches full capacity. Results may vary based on peak charging times and battery state of charge. Actual vehicle range varies with conditions such as external elements, driving behaviors, vehicle maintenance, lithium-ion battery age and state of health.

⁴ FordPass Connect (optional on select vehicles), the Ford Pass app and complimentary Connected Service are required for remote features (see FordPass Terms for details). Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected service excludes Wi-Fi hotspot.

SELF-DRIVING VEHICLES

Our goal is to use self-driving technology to make people's lives better in the cities we operate in. Self-driving vehicles have the potential to deliver new levels of accessibility, affordability and convenience, particularly in urban environments.

TOMORROW'S MOBILITY TODAY

Every city has its own transportation challenges, which require tailored responses. So, we are working with city and community leaders to build services that are safe, reliable and address their specific needs as part of a broader transportation solution.

Whether moving people or goods, a self-driving service must be built with trust and safety in mind. That is why we are focused on delivering every part of a sustainable, scalable service, from the development of the necessary software with our technology partner Argo AI to building a best-in-class customer experience.

Working closely with customers, industry and government officials, we plan to spend more than \$4 billion through 2023 on our self-driving business. This includes a \$1 billion investment in our technology partner Argo AI. We have tested self-driving technology on the streets of several U.S. cities, most recently in Austin, Texas (see opposite).

TECHNOLOGY PARTNERSHIPS

In the latest development of our global alliance with Volkswagen, the German automaker has joined Ford in investing in Argo AI. This allows both companies to integrate Argo AI's self-driving software into our own vehicles across the United States and Europe. While both companies remain independent, teaming up with Argo AI on this technology will allow us to

deliver unmatched capability, scale and reach. We are also building a new electric vehicle for Europe, based on Volkswagen's Modular Electric Drive toolkit beginning in 2023, and we have signed an agreement to collaborate on commercial vehicles from 2022.

Ford's acquisition of Michigan-based Quantum Signal in July 2019 strengthens our expertise in real-time simulation and algorithm development for our Transportation as a Service (TaaS) platform, and to enhance the customer experience inside the vehicle.



Testing Self-Driving Vehicles

Ford and Argo AI are rolling out real-world testing across cities in the United States to make our self-driving system (SDS) smarter.

We have committed to launching a self-driving service in Austin, Miami-Dade County and Washington D.C. and are testing our self-driving vehicles in these cities, as well as in Detroit, Palo Alto and Pittsburgh. Each city represents a unique opportunity to expose the system to different road infrastructure design, driving behavior and even traffic light placement.

PRIORITIZING SAFETY

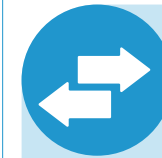
Safety is a top priority for us. We are focused on using the best technology to create a fully integrated self-driving system that can be manufactured at scale for safe and reliable deployment.

When testing self-driving vehicles, Ford and Argo AI implement strict precautions to ensure safety every step of the way. In addition to using simulation and proving-ground testing before testing on public roads, all of Ford and Argo AI's self-driving test vehicles currently have a safety driver and co-pilot on board.

Read our safety report, [A Matter of Trust](#), for more information.

MOBILITY SOLUTIONS

Our vision for future urban mobility involves addressing challenges such as climate change, air pollution and congestion. Parking, traffic flow, public transport and deliveries can all be radically improved if we coordinate all forms of transportation.



OUR GOAL

We aspire to drive human progress by providing mobility and accessibility for all.

THE WORLD IS CHANGING

With a growing shift away from vehicle ownership toward services, we are investing in our digital capabilities to develop mobility and connected vehicle services. Two core elements underpin everything we're doing to ensure our mobility solutions benefit cities and citizens:

- Focusing on the real-world experiences of our customers to making movement more accessible and efficient
- Reassuring owners and users of our products and services that their data is secure and being used to improve mobility

We have engaged many experts outside Ford and created our own Technology Advisory Council to gain further insight into how the future might shape today. The main trends in technology align with our core competencies, including digital networks, trust and advanced technology.

COMMUNICATION IN THE CLOUD

We are leading efforts to build a new vision for urban transport – one that focuses on the individual needs of people who live and work in our cities.

[Watch a video about how Ford is building a self-driving business](#)

Ford Trends Report 2020

In the eight years since we first published an annual trends report, one theme has remained consistent: the role of trust in society. Continuing to build trust in brands, institutions and relationships to better serve our customers, communities and the planet remains a dominant theme in the [2020 Trends Report](#).



“NOBODY CAN PREDICT THE FUTURE, BUT I BELIEVE THAT SOME OF US CAN CREATE IT. AND YOU CAN ONLY DO THAT IF YOU HAVE MEANINGFUL, PURPOSEFUL CONVERSATIONS ABOUT WHAT SORT OF FUTURE IS MOST BENEFICIAL TO YOU OR YOUR ORGANIZATION.”

SHERYL CONNELLY, CHIEF FUTURIST

By creating new mobility services and solutions, we are improving people's lives and solving major environmental challenges. Core to this effort is the Transportation Mobility Cloud (TMC), a cloud platform that provides the real-time data and operations of connected vehicles. The TMC gives developers and mobility providers tools to better understand, control and remotely update vehicles, thus enabling them to create a more sustainable, efficient and safe transportation network.

[Read more about how we're using data analytics](#)

C-V2X: It's Good to Talk

Enabled through the rapidly developing 5G network, we continue to lead the industry's rollout of next-generation vehicles using cellular vehicle-to-everything (C-V2X)

technology. C-V2X can communicate with other vehicles, cyclists, pedestrians and road infrastructure such as traffic lights, as well as construction sites and other challenging road conditions, to optimize safe, efficient travel.

We are committed to deploying C-V2X in China in 2021 and in all new U.S. vehicle models from 2022. But to achieve its full potential, C-V2X must be widely deployed within transportation systems; this requires automakers, government agencies and other partners to support its potential.

The Federal Communications Commission (FCC) recently proposed to allow C-V2X to operate alongside Wi-Fi in a portion of the wireless spectrum set aside for safety purposes. Our lab and field tests show that Wi-Fi signals compromise C-V2X



“WHAT AN EXCITING TIME TO BE AT SUCH AN ICONIC COMPANY! IN EUROPE, WE ARE FOCUSING OUR MOBILITY EFFORTS ON ENABLING OUR COMMERCIAL CUSTOMERS TO MOVE AND WORK IN CITIES IN A SUSTAINABLE WAY. WE ARE ACTIVELY RUNNING PILOTS WITH OUR CUSTOMERS ON LAST-MILE DELIVERIES, PARKING AND SHARING COMMERCIAL VEHICLE DATA WITH CITY STAKEHOLDERS. THE TEAM ARE PROUD TO BE HELPING TO DEFINE FREEDOM OF MOVEMENT FOR THE NEXT CENTURY, BY IMAGINING, DESIGNING AND CREATING SOLUTIONS WITH OUR CUSTOMERS AT CENTER OF EVERYTHING WE DO.”

SARAH-JAYNE WILLIAMS, DIRECTOR, SMART MOBILITY EU



“THE PARTNERSHIPS WE ARE PUTTING IN PLACE WITH TECHNOLOGY COMPANIES AND OTHER AUTOMAKERS ARE VERY POWERFUL. IN ADDITION TO REDUCING DEVELOPMENT COSTS AND CREATING ECONOMIES OF SCALE, WE CAN IMPROVE THE CUSTOMER EXPERIENCE WITH MORE RAPID INNOVATION ON NEW TECHNOLOGIES AND VEHICLE OFFERINGS.”

RAJ SARKAR, DIRECTOR, BUSINESS STRATEGY

A Quantum Leap in Combatting Congestion

We're exploring the potential for mitigating congestion through intelligent route planning. To do this, we need extensive computing power, which is where our research pilot with Microsoft comes in.

We leveraged techniques inspired by quantum computing to model improving mobility in busy urban environments. Scientists have simulated thousands of vehicles requesting identical routes across Seattle and, when compared to “selfish” routing, balanced routing has the potential to reduce both congestion and commuting time. Initial results are promising, and we continue to work with Microsoft to evaluate further opportunities.

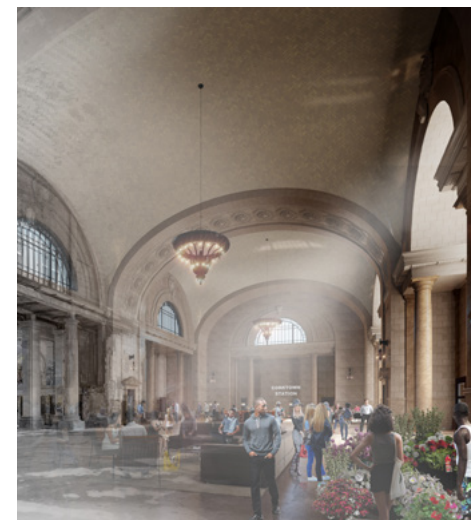
safety applications so we're urging the FCC to preserve the entire band for safety applications such as C-V2X.

CITY SOLUTIONS

We're working to help cities understand their transportation needs and explore how new technology and data can support better urban mobility for all.

Crowdsourcing Solutions: The City:One Challenge

Founded on the idea that we can solve today's mobility needs one person and one solution at a time, the [City:One Challenge](#) provides a platform designed to empower city officials, companies and communities



Transforming Michigan Central Station

We are investing \$740 million to restore Michigan Central Station and several surrounding properties to create an innovation hub in Corktown, Detroit's oldest neighborhood. Our [Dearborn campus transformation](#) will bring together thousands of Ford employees, entrepreneurs and partners in modern, mixed-use spaces designed to foster innovation and engagement. The Corktown area will serve as a catalyst for new ideas, and a proving ground for our connected vehicles, city solutions and new mobility concepts, helping us better understand the role transportation plays in revitalizing our cities.

to collaborate on new mobility solutions at the local level. Having supported pilot projects in Miami, Pittsburgh and Grand Rapids, we focused on meeting local mobility needs in four new locations in 2019: Indianapolis, Austin and Mexico City, as well as the redevelopment of Michigan Central Station in Detroit. The winners are now launching pilots in each city.

Collaboration With Local Community Groups: We have teamed up with 400 Forward, an initiative that supports the next generation of female architects, with a focus on African American girls, through mentorship and financial assistance. Through the partnership, nine young women facilitated community working sessions for the City:One Michigan Central Station Challenge.

Racial Equity: We have provided a platform for entrepreneurs to understand how systemic racism impacts health and mobility for low-income communities and communities of color in Austin's eastern neighborhoods. Working with the City of Austin's Equity Office, the City of Austin Transportation Department and Joyce James Consulting, we engaged the city's Challenge finalists in a two-day workshop that included racial equity training, followed by a panel discussion with the Black Mamas Community Collective. The experience gave finalists new insights as they developed their proposals.



Delivering the Final Step With Agility Robotics

Continuing our existing partnership with Agility Robotics to explore how commercial vehicle customers can make warehousing and deliveries more efficient and affordable, Ford has acquired two upright, walking "Digit" robots.

Digit folds itself up for easy storage in the back of a vehicle and, on reaching its destination, can complete the delivery process "on foot." If it encounters an unexpected obstacle, it can access additional sensing and computing support from the self-driving vehicle.

The partnership builds on existing collaborations in self-driving delivery vehicles with Postmates and Walmart.

Accessibility: Key to shifting culture and creating opportunities is understanding that disability intersects all areas of life. Many of our Challenge finalists aim to enhance equity and provide a platform for innovation and inclusion:

- In Indianapolis and Detroit, pilot winner AbleLink Smart Living Technologies will deploy its Wayfinder technology, which uses GPS and personalized visual, audio and vibration prompts to help individuals with cognitive disabilities travel independently on fixed-route public transportation
- In Austin, Tappy Guide will provide mobile-enabled navigation guides for the visually impaired, hearing impaired, senior citizens and others with mobility impairments

[Watch a short video about the City:One Challenge](#)

TransLoc, DoubleMap and Ride Systems Merge Under Ford Mobility

The three most trusted names in transit technology – TransLoc, DoubleMap and Ride Systems – are now all part of Ford Mobility. They have come together to deliver mission-critical solutions for transit providers, including flexible dynamic routing, fixed route systems and planning services.

The one-stop-shop platform serves more than 1,500 locations, including municipalities, cities, hospitals, airports, universities and corporate business campuses. The group is the largest single provider of agency-owned microtransit systems for municipal transit agencies in the United States, and their fixed route and on-demand systems are at the core of cities and towns, as well as on university and business campuses.

CUSTOMER EXPERIENCE

We're reimagining every single part of the customer journey and giving them experiences that make their lives easier, worry-free and more enjoyable.

Great products and services alone will not be enough to achieve our ambition to become the world's most trusted company. It will also require a deep understanding of customer insights, behaviors and lifestyles to create ever-better experiences. Only through knowledge and empathy can we build customer loyalty over time, so we are focusing on the needs of each consumer.

BUILDING TRUST

Trust is about managing risk and uncertainty, and our Trust Framework is built on honesty, expertise and care. We need to display these now, in the near future and over the long term to build trust. The critical enabler is giving customers, suppliers and other stakeholders relevant information to be transparent and open – but always with data privacy and safety in mind.

As part of our human-centered design process, we are creating cross-functional teams with a wide diversity of expertise to address customers' needs. Ultimately, this will enable us to design vehicles and services that delight customers and help them feel more in control. For example, we've developed an advanced suite of [driver assist technology](#) – Ford Co-Pilot360™ – that helps reduce stress and instill driver confidence in our vehicles.

[Watch a short video of Jim Hackett addressing Ford customers](#)



“THROUGH THE CITY:ONE CHALLENGE, WE AIM TO ELEVATE COMMUNITY VOICES AS THEY UNDERSTAND FIRSTHAND THE CHALLENGES OF MOVING AROUND. WHEN WE LISTEN TO MULTIPLE POINTS OF VIEW FROM THE COMMUNITY AND WORK WITH THEM ON MOBILITY DESIGN, WE HELP CREATE A STRONGER FOUNDATION FOR BUILDING MOBILITY SOLUTIONS WITH IMPACT THAT CAN BE RELEVANT TO EVERYONE.”

GINA SCHRADER, CO-FOUNDER AND OPERATIONS LEAD, CITY INNOVATIONS, FORD MOBILITY



“WE ARE EMBRACING CO-LOCATED AND CROSS-FUNCTIONAL TEAMS TO LEVERAGE USER INSIGHTS AND TECHNOLOGIES TO MAKE LIFE BETTER FOR OUR CUSTOMERS, AND BUILD DEEPER, LONGER-TERM RELATIONSHIPS WITH THEM BASED ON TRUST.”

JIM HACKETT, PRESIDENT AND CHIEF EXECUTIVE OFFICER

IMPROVING THE CUSTOMER EXPERIENCE

We're listening to our customers to ensure that each interaction addresses unmet needs, exceeds their expectations and builds long-term satisfaction. That includes everything from a visit to the dealership or a click on our website to getting a repair. Our efforts to improve every experience are outlined below.

[Watch a short video with Elena Ford discussing the customer experience](#)

- **FordPass App and FordPass Rewards Program:** FordPass allows customers to receive personalized information, monitor their vehicles, get maintenance reminders and make service appointments. In North America, the 4 million FordPass Rewards loyalty program members can earn and redeem points toward maintenance, parts, services and new vehicle purchases.
- **New Contact Center Model:** Our new U.S. contact center in Houston introduced an “own the contact” model as a blueprint for all Ford call centers globally. Based on best practices from Lincoln, specially trained agents stay with the customer until their issue is resolved rather than transferring them to other colleagues. The Houston center currently serves U.S. truck owners but the system will be expanded to SUV and car customers.

Spin Expands to Europe

Ford acquired San Francisco-based electric-scooter company Spin in late 2018, meeting a need for convenient, cost-effective micro-mobility for those first and last miles of a journey.

Already collaborating with cities and universities around the United States to offer an affordable, reliable and sustainable alternative for short trips, the service is coming to Europe shortly. A fleet of dockless scooters is destined for Cologne, Germany, and other cities in the country will follow.

Spin has also announced plans to invest in hundreds of additional charging hubs around the United States.

- **No-Touch Safe Service:** During the COVID-19 outbreak, Ford dealerships have gone to great lengths to avoid direct customer contact and to fully disinfect vehicles before and after services, repairs, test drives and sales. More than 90 percent of Ford dealers in the United States now offer remote pickups and deliveries.
- **Ford Signature Dealerships:** New signature dealerships deliver a fresh look, greater transparency and an improved experience. We will have 300 Ford Signature dealerships by the end of 2020, and thousands more are in the pipeline.

- **Mobile Service Units:** We continue to expand our mobile maintenance pilot program, which brings Ford-quality tools and technicians out to retail and commercial fleet customers in the U.K., the United States and Argentina. Their most important work involves keeping first responders and other critical support vehicles on the road during the COVID-19 crisis.

- **Ford Credit:** In the face of uncertainty and multiple shelter-in-place orders, Ford Credit offered payment deferrals and zero percent financing options on most new models, along with online financing and purchasing at more than 500 dealerships.

- **Transparent Workshop:** In China, customers can now follow their vehicles through a service, using the WeChat mini-program on their phone or digital screens in participating dealerships. Cameras with license plate recognition provide real-time footage and notify customers at each stage of the process.

- **Augmented Reality Service Tool:** We were the first automaker in Latin America to use augmented reality to support vehicle maintenance. The special glasses connect dealerships with centralized Ford service engineering specialists, reducing maintenance times and improving the accuracy of more complex diagnostics.



- **Reducing Downtime:** In Europe, we're working on a pilot to reduce vehicle service and repair time for commercial and fleet customers. The pilot empowers a dedicated specialist team with a range of data tracking the entire breakdown and repair journey to help customers get back on the road.
- **Electrification:** Our all-electric Mustang Mach-E will come with a suite of innovative technology, including Phone As A Key, a 15.5-inch touch screen and next-generation SYNC that adapts to customer behavior. Over-the-air updates can add enhancements and features while the vehicle sits in the driveway. Customers will also have access to more than 13,500 charging stations across North America through the FordPass network (see [page 48](#) for further information).

[Read more about our response to the COVID-19 outbreak](#)



“WE ARE JUST AS PASSIONATE ABOUT CUSTOMER EXPERIENCE AS WE ARE ABOUT OUR VEHICLES. IT'S ABOUT BEING THERE FOR OUR CUSTOMERS AS THEY USE OUR PRODUCTS AND SERVICES, AND EARNING THEIR TRUST AT EACH STEP ALONG THEIR JOURNEY. OUR GOAL IS TO CREATE CUSTOMER ADVOCATES BY DELIVERING OWNER AND USER EXPERIENCES WITH HONESTY, EXPERTISE AND CARE.”

JORGE VIVAS, DIRECTOR, GLOBAL CUSTOMER EXPERIENCE STRATEGY

ENGAGING EMPLOYEES

One of our top priorities over the past year has been championing customer experience internally. Through employee events and campaigns, we're helping foster a customer-centric mindset and educating employees that customer experience is everyone's responsibility. For example, our Creating Tomorrow, Together Open House at our Dearborn Headquarters in January 2020 included a special exhibit and vision mapping workshop that helped employees connect their work to the customer experience.

We also launched an Employee, Friends and Family Support Program in 2020 that provides all salaried employees in the United States with access to quick, preferential assistance with a vehicle question or issue by simply filling out an online form. This program will be rolled out to other regions over time.

OVER THE PAST FOUR YEARS, MORE THAN 1,000 U.S. DEALERS HAVE INVESTED A TOTAL OF \$2 BILLION TO UPGRADE THEIR FACILITIES TO ENHANCE THE CUSTOMER EXPERIENCE.



“TO BE A TRULY CUSTOMER-CENTERED COMPANY, WE NEED EVERYONE TO

PLAY A ROLE. IT CAN'T JUST BE OUR DEALERS OR THE CUSTOMER EXPERIENCE TEAM. WE NEED TO FOSTER A CUSTOMER-FIRST MINDSET AMONG ALL FORD EMPLOYEES AND ACROSS ALL AREAS OF OUR BUSINESS.”

ELENA FORD, CHIEF CUSTOMER EXPERIENCE OFFICER

GLOBAL DATA ANALYTICS AND PRIVACY

The information that customers provide helps us deliver great products, a personalized experience and continued innovation. We respect customer privacy and use the data they share responsibly.

DATA PRIVACY AND SECURITY

Identified as one of our salient human rights issues, we take our responsibilities concerning data protection, privacy and security seriously. Our companywide governance infrastructure drives a holistic approach that includes policies focused on transparency, responsible data handling and use, and choice, where appropriate.

 Data protection, privacy and security is a salient human rights issue for Ford.

We have adopted the Automotive Consumer Privacy Protection Principles developed by the Alliance for Automotive Innovation. We are also actively engaged with the Automotive Cybersecurity Industry Consortium (ACIC), a collaboration between the auto industry, research organizations and government to strengthen cybersecurity in the automotive sector. The ACIC researches, develops, evaluates and improves cybersecurity by addressing critical infrastructure needs in automotive systems.

In addition, we are a founding member of the Information Sharing and Analysis Center (Auto-ISAC), which gathers, analyzes and shares information to combat cyber-related threats and weaknesses.

GLOBAL DATA INSIGHT AND ANALYTICS

Harnessing the data provided by connected vehicles and using it to create even better experiences continues to be a key priority.



“GENERATING MEANINGFUL, ACTIONABLE INSIGHT FROM DATA TAKES HIGH-QUALITY DATA SCIENCE COMPLETED BY SOME VERY SMART PEOPLE. LUCKILY FOR FORD AND FOR OUR SAFETY INSIGHTS PRODUCT, WE'RE FINDING A WAY TO GENERATE BUSINESS-CRITICAL INSIGHT THROUGH THE APPLICATION OF WORLD-CLASS DATA ANALYTICS.”

CALLAHAN COPLAI, PRODUCT OWNER, SAFETY INSIGHTS, FORD CITY SOLUTIONS

Safety Insights

Safety Insights is an award-winning, patent-pending traffic safety analytics tool built entirely by Ford that can help public agencies save time, money and, most importantly, lives.

Through an intuitive web-based platform, Safety Insights shows traffic flow, crash events and connected vehicle safety events such as hard braking or acceleration. Users are able to visualize safety data, identify hotspots and simulate potential solutions all in a single easy-to-use tool. The system incorporates analytical methods found in the Highway Safety Manual, as well as algorithms developed by our GDI&A team.

Safety Insights originated as RoadCode, a Ford submission through the U.S. Department of Transportation's Solving for Safety Competition that ended in May 2019. The beta version of Safety Insights is currently being used by 10 public agencies with more than 80 users, with broader rollout plans being led by Ford's City Solutions team.

SAFETY INSIGHTS

FORD MOBILITY

Our 1,000-strong Global Data, Insight and Analytics (GDI&A) team uses data science and analytics as the foundation of our innovations. This effort helps us understand and anticipate consumer behavior and accelerates the development of the mobility, electrification, connectivity and self-driving solutions that will improve people's lives.

Always acting with privacy in mind, we use analytics in research, product development, manufacturing, supply chain, marketing and sales, finance, purchasing, information technology and human resources functions. Led by GDI&A, we're also using artificial intelligence (AI) to enhance our vehicles and services, improve our product development and manufacturing processes, and deliver enhancements across the business.

External Recognition

- In 2019, our Safety Insights tool earned second prize in the U.S. Department of Transport-sponsored Solving for Safety Challenge
- Ford's GDI&A and Manufacturing teams won the 2019 ANNY Excellence in Analytics Award from the International Institute for Analytics (IIA) for their efforts to improve global supply chain fitness. As one example, we modified the ordering system to fully optimize truck trailers when shipping parts to Ford plants, avoiding more than 10,000 journeys and over 1 million miles

“ AS WE LAUNCH THIS YEAR'S SUSTAINABILITY REPORT, WE ARE REMINDED OF HOW CONNECTED WE ALL ARE AND HOW EVERY INDIVIDUAL ACTION WE TAKE, WHETHER RESPONSIBLE OR RECKLESS, CAN HAVE REAL CONSEQUENCES FOR SOMEONE ELSE. THE CORONAVIRUS PANDEMIC HAS SHOWN US HOW POWERFUL IT IS WHEN ACTIONS IN SERVICE TO SOMETHING GREATER, SCALED AROUND THE WORLD, CAN CHANGE HUMAN BEHAVIOR. IT'S A HOPEFUL SIGN THAT WE CAN COME TOGETHER TO ADDRESS THE CHALLENGE OF CLIMATE CHANGE.

SUSTAINABILITY IS ONE OF THE BIGGEST ISSUES FACING BUSINESSES IN OUR TIME, AND I AM VERY PROUD OF THIS YEAR'S REPORT BECAUSE IT DOCUMENTS THE PROGRESS WE ARE MAKING ON THINGS WE HAVE BEEN WORKING ON SINCE LAUNCHING THE REPORT OVER 20 YEARS AGO. FORD IS THE ONLY FULL LINE U.S. AUTOMAKER COMMITTED TO DOING ITS PART TO REDUCE CO₂ EMISSIONS IN LINE WITH THE PARIS CLIMATE AGREEMENT AND WORKING WITH CALIFORNIA FOR STRONGER VEHICLE GREENHOUSE GAS STANDARDS. WE ARE ALSO ELECTRIFYING OUR MOST ICONIC NAMEPLATES BEGINNING WITH THE MUSTANG MACH-E THIS YEAR.

HOWEVER, NONE OF THIS WOULD BE POSSIBLE WITHOUT OUR INCREDIBLE PEOPLE AT FORD. THANKS TO THEM, MORE THAN EVER, WE ARE BUILT FOR GENERATIONS TO COME.”

BILL FORD, EXECUTIVE CHAIRMAN



OUR ASPIRATIONAL GOALS



Climate Change
We aspire to achieve **carbon neutrality** by 2050



Human Rights
We aspire to **responsibly source all raw materials** used within our vehicles globally



Diversity
We aspire to become the **most inclusive and diverse** global company



Energy
We will use **100 percent locally sourced renewable energy** for all manufacturing plants globally by 2035



Waste
We will achieve **true zero waste to landfill** across our operations

We will **eliminate single-use plastics** from our operations by 2030



Access
We aspire to **drive human progress** by providing mobility and accessibility for all



Water
We will make **zero water withdrawals** for manufacturing processes
We will use **freshwater for human consumption only**



Air
We aspire to achieve **zero air emissions** from our facilities



Materials
We aspire to only use **recycled and renewable plastics** in our vehicles globally



2020

PERFORMANCE DATA



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PERFORMANCE DATA

FINANCIAL

	2017	2018	2019
Worldwide Income Taxes Paid			
Income taxes paid/(refunded)	\$586m	\$821m	\$599m
Financial Highlights			
Revenue	\$156.8b	\$160.3b	\$155.9b
Net income attributable to Ford Motor Company	\$7.7b	\$3.7b	\$47m
Company adjusted EBIT ¹	\$9.6b	\$7.0b	\$6.4b
Company adjusted EBIT margin ¹	6.1%	4.4%	4.1%
Company adjusted free cash flow ¹	\$4.2b	\$2.8b	\$2.8b
Adjusted earnings per share ¹	1.78	1.30	1.19

INNOVATION

	2017	2018	2019
Utility Patents Issued (number of patents issued)			
Global utility patents issued	3,035	3,950	4,884
U.S. utility patents issued to Ford and subsidiaries	1,868	2,142	2,521

PRODUCT QUALITY AND CUSTOMER SATISFACTION

	2017	2018 ²	2019
GQRS “Things Gone Wrong” (TGW) (three months in service) by Region (total TGW per 1,000 vehicles)			
North America	1,132	768	865
South America	1,082	1,257	1,331
Europe	1,295	1,006	1,214
Asia Pacific	842	1,658	N/A
Asia Pacific (excluding China and Taiwan)	N/A	N/A	1,506
China (including Taiwan)	N/A	N/A	1,254
Middle East & Africa	802	1,710	1,335
GQRS Customer Satisfaction (three months in service) by Region (percent highly satisfied)			
North America	83	78	80
South America	69	59	61
Europe	72	65	66
Asia Pacific	69	48	N/A
Asia Pacific (excluding China and Taiwan)	N/A	N/A	66
China (including Taiwan)	N/A	N/A	58
Middle East & Africa	64	53	60

WORKFORCE PROFILE

	2017	2018	2019
Global Workforce by Region (percent)³			
North America	49	50	52
South America	7	6	5
Europe	27	26	24
Asia Pacific	11	11	N/A
Asia Pacific (excluding China and Taiwan)	N/A	N/A	5
China (including Taiwan)	N/A	N/A	2
Middle East & Africa	2	2	3
Employment by Business Unit (average number of people employed)⁴			
Automotive	193,931	190,267	173,472
Financial Services	7,641	7,561	6,782
Ford Smart Mobility	703	1,135	3,130
Corporate and Other	N/A	N/A	7,051
Total	202,275	198,963	190,435

Note: In 2019, we updated our regional business units in alignment with the Annual Financial Report. The regions have changed. China (including Taiwan) has been separated from Asia Pacific. The new Asia Pacific (excluding China and Taiwan) is shown as Asia Pacific (excluding China and Taiwan). Historical data for China (including Taiwan) for 2017 and 2018 is included as part of the Asia Pacific figure.

¹ See Form 10-K, pages 60–63 for definitions and reconciliations to GAAP (U.S. Generally Accepted Accounting Principles).

² Reflects GQRS 2018 onward. China (including Taiwan) became a new business unit in 2019. Numbers reflected under Asia Pacific are not equal to the sum of Asia Pacific (excluding China and Taiwan) and China (including Taiwan) as numbers are volume weighted by region.

³ Regions do not add up to 100% as they represent automotive only.

⁴ In 2019, we updated our Employment by Business Unit figures by adding Corporate and Other to match the Form 10-K.

WORKFORCE PROFILE CONTINUED

	Hourly	Salaried	Total	
Total Workforce by Hourly and Salaried (2019)				
Total company	123,590	66,843	190,433	

	Hourly	Salaried	Total	Percent
Total Workforce by Hourly and Salaried, by Region (2019)				

Automotive

The Americas

North America	68,901	29,865	98,766	52
South America Operations	7,193	2,851	10,044	5
Total Americas	76,094	32,716	108,810	57

Europe

Total Europe	35,784	10,423	46,207	24
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Asia Pacific, China, Middle East & Africa

Asia Pacific (excluding China and Taiwan)	6,813	3,403	10,216	5
China (including Taiwan)	546	2,864	3,410	2
Middle East & Africa	4,005	825	4,830	3
Total Automotive	123,242	50,230	173,472	91

Financial Services

Total	N/A	6,782	6,782	4
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Ford Smart Mobility

Total	348	2,782	3,130	2
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Ford Business Solution

Total	N/A	6,348	6,348	3
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Corporate Governance

Total	N/A	703	703	0
Total company	123,590	66,843	190,433	100

DIVERSITY⁵

	Number	Percent
Total Global Salaried Workforce by Gender (2019)		
Male	39,970	72.5
Female	15,198	27.5
Total	55,168	100

	2017	2018	2019
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Global Salaried Employees by Gender (percent)

Male	73	72	72.5
Female	27	28	27.5

Board of Directors Composition by Gender and Minorities (percent)

Male	75	85	78.6
Female	25	15	21.4
Minorities	16.7	15	14.3

Executive Officers by Gender and Minorities (percent)⁶

Male	82.4	70.0	77.8
Female	17.6	30.0	22.2
Minorities	23.5	22.2	22.2

Corporate Officers by Gender and Minorities (percent)⁷

Male	85.4	81	84.6
Female	14.6	19	15.4
Minorities	16.7	17	20.5

DIVERSITY CONTINUED

	2017	2018	2019
Women in Senior Management by Region (percent) ⁸			
North America	16.6	18.5	18.6
South America	12.0	5.3	0.0
Europe	7.3	8.3	7.8
Asia Pacific (excluding China and Taiwan)	4.4	15.8	12.5
China (including Taiwan)	3.6	5.6	11.9
Middle East & Africa	0.0	0.0	0.0
Financial Services	23.1	20.0	27.3
Total	13.2	14.7	15.8

Women in Middle Management by Region (percent)

North America	22.2	23.3	25.0
South America	18.3	18.5	16.6
Europe	14.9	15.4	16.4
Asia Pacific (excluding China and Taiwan)	12.8	13.0	15.4
China (including Taiwan)	21.8	25.8	30.9
Middle East & Africa	20.2	20.0	13.4
Financial Services	24.8	26.5	26.9
Total	19.7	20.8	22.2

Note: In 2019, we updated our regional business units in alignment with the Annual Financial Report. The regions have changed. China (including Taiwan) has been separated from Asia Pacific. The new Asia Pacific (excluding China and Taiwan) is shown as Asia Pacific (excluding China and Taiwan). Historical data for China (including Taiwan) for 2017 and 2018 is included as part of the Asia Pacific figure.

⁵ The Total Global Salaried Workforce by Gender includes all EU workforces. All other categories include only UK and Germany.

⁶ Executive Officers is a new category representing the named officers in Form (10-K).

⁷ Corporate Officers is a historical category that includes Executive Officers.

⁸ Women in Senior Management is a new category that includes Corporate Officers.

DIVERSITY CONTINUED

	2017	2018	2019
Women in Supervisory Positions by Region (percent)			
North America	23.5	24.3	24.4
South America	20.8	21.2	22.5
Europe	16.5	16.9	17.2
Asia Pacific (excluding China and Taiwan)	15.4	14.9	15.1
China (including Taiwan)	35.5	36.1	37.5
Middle East & Africa	25.5	25.5	25.4
Financial Services	37.6	38.5	37.7
Total	22.5	23.1	23.1

	Number	Total population	Percent
Women in Senior Management by Region (2019)			
North America	66	354	18.6
South America	0	16	0.0
Europe	7	89	7.9
Asia Pacific (excluding China and Taiwan)	3	24	12.5
China (including Taiwan)	5	42	11.9
Middle East & Africa	0	3	0.0
Financial Services	6	22	27.3
Total	87	550	15.8

Women in Middle Management by Region (2019)

North America	471	1,887	25.0
South America	29	175	16.6
Europe	120	733	16.4
Asia Pacific (excluding China and Taiwan)	68	442	15.4
China (including Taiwan)	82	265	30.9
Middle East & Africa	9	67	13.4
Financial Services	68	253	26.9
Total	847	3,822	22.2

DIVERSITY CONTINUED

	Number	Total population	Percent
Women in Supervisory Position by Region (2019)			
North America	1,524	6,252	24.4
South America	97	431	22.5
Europe	397	2,313	17.2
Asia Pacific (excluding China and Taiwan)	195	1,290	15.1
China (including Taiwan)	191	510	37.5
Middle East & Africa	48	189	25.4
Financial Services	233	618	37.7
Total	2,685	11,603	23.1

	Number	Percent
Board of Directors – Demographic data (2019)		
Male	11	78.6
Female	3	21.4
Minorities	1 Puerto Rican 1 African American	14.3
Total	14	

Executive Officers – Demographic data (2019)⁹

Male	7	77.8
Female	2	22.2
Minorities	1 Asian 1 African American	22.2
Total	9	

Corporate Officers – Demographic data (2019)¹⁰

Male	33	84.6
Female	6	15.4
Minorities	3 Asian 5 African American	20.5
Total	39	

DIVERSITY CONTINUED

		2017	2018	2019
U.S. Employment of Minority-Group Personnel and Women at Year-End (percent) ¹¹				
Minority-group personnel	Total	31	31.5	32.6
	Salaried	26.4	27	27.9
	Hourly	33.5	34	35.2
Women	Total	23.6	24	24.3
	Salaried	27.2	28	27.4
	Hourly	21.7	22	22.6

		Number	U.S. Total Population	Percent
U.S. Demographic data (2019) ¹²				
Minority-group personnel	Total	28,555	87,529	32.6
	Salaried	8,693	31,105	27.9
	Hourly	19,862	56,424	35.2
Women	Total	21,262	87,529	24.3
	Salaried	8,513	31,105	27.4
	Hourly	12,749	56,424	22.6

Note: Definition updated from previous years to include only Executive Officers listed in Form 10-K.

Note: In 2019, we updated our regional business units in alignment with the Annual Financial Report. The regions have changed. China (including Taiwan) has been separated from Asia Pacific. The new Asia Pacific (excluding China and Taiwan) is shown as Asia Pacific (excluding China and Taiwan). Historical data for China (including Taiwan) for 2017 and 2018 is included as part of the Asia Pacific figure.

⁹ Executive Officers is a new category representing the named officers in Form (10-K).

¹⁰ Corporate Officers is a historical category that includes Executive Officers.

¹¹ Includes Ford Credit.

¹² U.S. Only (Salaried and Hourly), including Ford Credit and Mobility.

HEALTH AND SAFETY

	2017	2018	2019
Global Lost-Time Case Rate (per 100 employees) (cases with one or more days away from work per 200,000 hours)			
Ford Motor Company (global)	0.38	0.41	0.39
Lost-Time Case Rate by Region (per 100 employees) (cases with one or more days away from work per 200,000 hours)			
North America	0.63	0.67	0.66
South America	0.42	0.52	0.46
Europe	0.42	0.38	0.32
Asia Pacific	0.024	0.017	N/A
Asia Pacific (excluding China and Taiwan)	N/A	N/A	0.006
China (including Taiwan)	N/A	N/A	0.004
Middle East & Africa	0.1	0.09	0.05
Global Fatalities			
	2 ¹³	1 ¹⁴	0 ¹⁵

COMMUNITIES

	2017	2018	2019
Charitable Contributions (\$ million)			
Ford Motor Company Fund	40.6	43.9	46.4
Corporate	22.4	23.8	15.8
Total	63.0	67.7	62.2
Volunteer hours (per thousand)			
Volunteer Corps	237	149	117

EMPLOYEE ENGAGEMENT

	2017	2018	2019
Voluntary Quit Rate by Major Markets (salaried employees) (percent)			
United States	2.3	2.7	3.1
Canada	1.1	2.1	6
Mexico	6.1	5.9	4.9
Brazil	1.7	3.7	3.9
Germany	0.5	0.2	0.56
United Kingdom	1.8	1.7	4.5
China	7.2	11.7	6.9
India	5.2	5.9	9
Thailand	7.4	7.6	4.6

	North America	South America	Europe	Asia Pacific (excluding Taiwan and China)	China (including Taiwan)	Middle East & Africa
Confirmed Harassment Allegations (2019)						
Number of confirmed harassment allegations ¹⁶	136	2	1	5	0	6
Percentage of confirmed harassment allegations by region ¹⁷	0.38	0.06	0.11	0.05	0.00	0.69

Note: In 2019, we updated our regional business units in alignment with the Annual Financial Report. The regions have changed. China (including Taiwan) has been separated from Asia Pacific. The new Asia Pacific (excluding China and Taiwan) is shown as Asia Pacific (excluding China and Taiwan). Historical data for China (including Taiwan) for 2017 and 2018 is included as part of the Asia Pacific figure.

¹³ We experienced two fatalities, one to a Ford employee and the other involving a contractor.

¹⁴ In 2018, we had a service contractor fatality at a North America Stamping Plant. Any loss of life or serious injury in the workplace is unacceptable and deeply regretted.

¹⁵ In 2019, there were no employee or contractor fatalities.

¹⁶ Confirmed harassment cases (when the respondent is a salaried employee) that involves: sex-related, race, hostile, demeaning/ belittling behavior, whether it is physical, verbal or both.

¹⁷ Refers to confirmed harassment complaints as a percent of the total population by region.

SUPPLIER DIVERSITY

	2017	2018	2019
Total Purchases (\$ billion)			
From minority-owned businesses – United States	8.88	8.56	8.49
From veteran-owned businesses – United States	0.56	0.41	0.179
From women-owned businesses – United States	2.56	2.28	1.53

VEHICLE SAFETY

	2019
Ford and Lincoln Nameplates With 5-Star Overall Rating (number)	
U.S. NCAP	13
Euro NCAP	10
China NCAP	9

Available Ford and Lincoln Nameplates With 5-Star Overall Rating (percent)

U.S. NCAP	76
Euro NCAP	71
China NCAP	82

	2017	2018	2019
U.S. Safety Recalls			
Number of safety recalls ¹⁸	37	31	37
Number of passenger vehicle recalls (million)	3.79	5.94	7.1

SUPPLY CHAIN MANAGEMENT

	Americas	Europe	Asia Pacific (excluding China and Taiwan)	China (including Taiwan)	Middle East & Africa	Global Total
Working Conditions Assessments (as of 12/31/2019)						
Assessments completed to date	412	121	255	348	50	1,186
Follow-up assessments completed to date (third party and/or internal)	593	181	361	418	59	1,612
Working Conditions Training (as of 12/31/2019)						
Training sessions conducted to date	92	36	32	39	12	211
Total number of attending companies	1,084	485	536	591	106	2,802
Total number of trained managers (attendees)	1,778	775	700	831	174	4,258

	Global Total		2017	2018	2019
Working Conditions Training (Scope of Impact: Supplier-Submitted Data as of 12/31/2019)					
Training cascade to management (individuals trained)	42,139	Total supplier sites trained/ retrained in sustainability management (cumulative, since 2005)	3,549	3,696	3,792
Training cascade to workforce (individuals trained)	891,748				
Communication to suppliers (number of sub-tier companies)	166,017	Total purchase from Tier 2 suppliers (\$ billion)	3.81	3.9 ¹⁹	4.2 ¹⁹

Note: In 2019, we updated our regional business units in alignment with the Annual Financial Report. The regions have changed. China (including Taiwan) has been separated from Asia Pacific. The new Asia Pacific (excluding China and Taiwan) is shown as Asia Pacific (excluding China and Taiwan). Historical data for China (including Taiwan) for 2017 and 2018 is included as part of the Asia Pacific figure.

¹⁸ Includes TAKATA Airbag and DPS6 transmission related recalls.

¹⁹ This data is self-reported by suppliers to Ford. Only includes certified diverse businesses.

SUPPLY CHAIN MANAGEMENT CONTINUED

	2019		2019		2019
Supplier Audit Findings – Prevalence of non-conformances in 2019 initial audits conducted (percent of audits issue in which finding appeared)					
Labor – Total	100	Environment – Total	74	Management System – Total	100
Prevalence of Child Labor	0	Air Emissions	30	Audits and Assessments	65
Child Labor Avoidance Policies and Management Systems	52	Energy Consumption and Greenhouse Gas Emissions	48	Communication	43
Freedom of Association	43	Environmental Permits and Reporting	17	Company Commitment	22
Presence of Forced Labor	0	Hazardous Substances	61	Corrective Action Process	26
Freely Chosen Employment Policies and Management Systems	74	Materials Restrictions	9	Documentation and Records	26
Humane Treatment	13	Pollution Prevention and Resource Reduction	22	Improvement Objectives	57
Non-Discrimination	70	Solid Waste	17	Legal and Customer Requirements	61
Wages and Benefits	70	Water Management	17	Management Accountability and Responsibility	65
Working Hours	100		65	Risk Assessment and Risk Management	74
	100	Ethics – Total		Supplier Responsibility	96
Health & Safety – Total		Business Integrity	35	Training	39
Emergency Preparedness	96	Disclosure of Information	22	Worker Feedback and Participation	30
Food, sanitation and housing	35	Fair Business, Advertising and Competition	22		
Health and Safety Communication	26	Intellectual Property	17		
Industrial Hygiene	22	No Improper Advantage	39		
Machine Safeguarding	17	Privacy	26		
Occupational Injury and Illness	65	Protection of Identity and Non-Retaliation	22		
Occupational Safety	91	Responsible Sourcing of Minerals	17		
Physically Demanding Work	17				

VEHICLE FUEL ECONOMY AND CO₂ EMISSIONS

	2017	2018	2019
Ford U.S. Corporate Average Fuel Economy (miles per gallon)			
Cars (domestic and import)	35.2	35.7	35.6 ²⁰
Trucks	26.1	26.3	26.8 ²¹
Combined car and truck fleet	29.6	28.9	29.0 ²²
Ford U.S. CO ₂ Tailpipe Emissions per Vehicle (grams per mile)			
Combined car and truck fleet average CO ₂ emissions	306	312	309 ²³
Ford Europe CO ₂ Tailpipe Emissions per Passenger Vehicle (grams per kilometer)			
	120.798	127.464 ²⁴	130.8
Ford Europe CO ₂ Tailpipe Emissions per Light Commercial Vehicle (grams per kilometer)			
	164.521	169.849 ²⁵	170.6
Ford Switzerland CO ₂ Tailpipe Emissions per Passenger Vehicle (grams per kilometer)			
	133.08 ²⁶	135.521	134.852 ²⁷

NON-CO₂ TAILPIPE EMISSIONS

	2017	2018	2019
Ford U.S. Average NOx and NMOG Emissions (grams per mile)			
Passenger cars ²⁸	0.086	0.069	0.074
All light duty ²⁹	0.124	0.092	0.083

OPERATIONAL ENERGY USE AND CO₂ EMISSIONS

	2017	2018	2019
Worldwide Facility Energy Consumption (billion kilowatt hours)			
Direct	7.2	7.2	6.74
Indirect	6.6	6.56	6.23
Total	13.8	13.8	12.97
Worldwide Facility Energy Consumption per Vehicle (kilowatt hours per vehicle)			
Direct	1,089	1,236	1,259
Indirect	1,003	1,121	1,165
Total	2,092	2,358	2,424
Worldwide Facility CO ₂ Emissions (million metric tons)			
Direct	1.32	1.27	1.14
Indirect	3.12	3.11	2.60
Total	4.43	4.38	3.74
Worldwide Facility CO ₂ Emissions per Vehicle (metric tons per vehicle)			
Direct	0.20	0.21	0.21
Indirect	0.47	0.52	0.49
Total	0.67	0.73	0.70

20 Includes 0.2 mpg FFV credit. Does not include A/C or Off-Cycle credits. The decline in car fuel economy is due to customers purchasing larger cars and reduced CAFE FFV credits. Despite the decrease in car CAFE, on an individual basis, our vehicles continue to make fuel economy improvements. See the Improving Fuel Economy section of the Sustainability Report 2020.

21 Includes 0.2 mpg FFV credit. Does not include A/C or Off-Cycle credits.

22 Includes FFV credits. Does not include A/C or Off-Cycle credits.

23 Includes FFV credits and Advanced Technology Multipliers. Does not include A/C or Off-Cycle credits.

24 EEA/EU COM publication still pending. CO₂ fleet performance including Correction Factor 1.035. Fleet performance including Eco-Innovation without FFV and Super Credits.

EMISSIONS (VOC AND OTHER)

	2017	2018	2019
Volatile Organic Compounds Released by Assembly Facilities (grams per square meter)			
	23.2	22.3 ³⁰	22.1
Ford U.S. TRI Releases (million pounds)			
	3.42	3.31	3.30
Ford U.S. TRI Releases per Vehicle (pounds per vehicle)			
	1.41	1.35	1.40
Ford Canada NPRI Releases (metric tons)			
	341	423 ³¹	376
Ford Canada NPRI Releases per Vehicle (metric tons per vehicle)			
	0.0013	0.0017 ³¹	0.0016

25 EEA/EU COM publication still pending. Fleet performance without FFV, Eco-Innovation and Super credits.

26 Fleet performance without FFV, Eco-Innovation and Super credits.

27 Swiss Ministry of Environment (BFE) published final 2019 CO₂ data. Fleet performance without FFV, Super credit and Eco-Innovation.

28 Passenger Car fleet average FTP NMOG + NOx Emissions from Tier 3 reports.

29 LDT2, LDT3, LDT4 & MDPV fleet average FTP NMOG + NOx Emissions from Tier 3 reporting data.

30 Revised due to typographical error.

31 Revised due to calculation error.

WASTE

	2017	2018	2019
Regional Waste to Landfill (million kilograms)			
North America	16.8	16.3	22.3
South America	0.05	0.05	0.04
Europe	1.7	1.3	0.5
Asia Pacific	0.7	0.5	N/A
Asia Pacific (excluding China and Taiwan)	N/A	N/A	0.5
China (including Taiwan)	N/A	N/A	0.07
Middle East & Africa	1.8	1.7	1.7
Waste to Landfill per Vehicle (kilograms)			
	3.2	3.3	4.3 ³²
Regional Hazardous Waste Generation (million kilograms)			
North America	11.4	14.1	13.1
South America	2.5	2.0	1.9
Europe	25.4	22.1	20.8
Asia Pacific	15.3	11.2	N/A
Asia Pacific (excluding China and Taiwan)	N/A	N/A	3.3
China (including Taiwan)	N/A	N/A	3.0
Middle East & Africa	2.5	2.3	2.1
Hazardous Waste Generation per Vehicle (kilograms)			
	8.6	8.7	8.5

WASTE CONTINUED

	2017	2018	2019
Hazardous Waste by Type and Disposal Method (million kilograms)			
Reuse	1.4	1.9	1.2
Recycling	14.0	15.7	14.3
Composting	0.1	0.1	0.1
Recovery, including energy recovery	9.6	10.0	8.7
Incineration (mass burn)	10.1	6.5	5.0
Deep well injection	0	0	0
Landfill	5.2	4.3	3.5
On-site storage	7.3	6.1	7.5
Other (packaging containing residues, etc.)	9.9	10.7	10.5
Non-hazardous Waste by Type and Disposal Method (million kilograms)			
Reuse	8.2	8.5	10.1
Recycling	1,270	1,199	1,070
Composting	4.7	5.4	5.5
Recovery, including energy recovery	28.9	27.3	21.6
Incineration (mass burn)	10.2	7.8	6.6
Deep well injection	0	0	0
Landfill	19.3	19.8	23.7
On-site storage	18.9	18.4	14.4
Other	17.9	16.9	14.1

WASTE CONTINUED

	2017	2018	2019
Total Waste by Type and Disposal Method (million kilograms)			
Reuse	9.6	10.4	11.3
Recycling	1,284.3	1,215.2	1,098.10
Composting	4.7	5.5	5.5
Recovery, including energy recovery	38.5	37.2	30.2
Incineration (mass burn)	20.3	14.3	11.6
Deep well injection	0.0	0.0	0.0
Landfill	24.5	24.1	27.2
On-site storage	26.2	24.5	22.0
Other (yard waste, etc.)	27.8	27.4	24.6
Total	1,435.9	1,358.7	1,230.5
Scrap metals (metric tons)			
US/Canada	519,377	498,782	518,413
Mexico	41,610	46,214	52,360
SA	59,410	57,203	45,667
EU/MEA	317,825	291,700	214,402
AP	149,674	111,389	85,714
Global (total)	1,087,856	1,005,288	916,556
Total Waste and Percent Recycled and Reused			
Total waste (million metric tons)	1.44	1.36	1.32
Percent recycled and reused	90	90	90

Note: In 2019, we updated our regional business units in alignment with the Annual Financial Report. The regions have changed. China (including Taiwan) has been separated from Asia Pacific. The new Asia Pacific (excluding China and Taiwan) is shown as Asia Pacific (excluding China and Taiwan). Historical data for China (including Taiwan) for 2017 and 2018 is included as part of the Asia Pacific figure.

³² In 2019, 43 of our ZWTL facilities in the Detroit area lost their ZWTL status temporarily, as a result of the abrupt closure of a local waste-to-energy facility. Ford remains committed to delivering our ZWTL objectives and has since regained ZWTL status for all 43 facilities. In the process, 14 new facilities also acquired ZWTL status, bringing the total number of global ZWTL sites up to 102, from 88.

WATER

	2017	2018	2019
Global Water Use per Vehicle Produced (cubic meters per vehicle produced)			
	3.7	3.7	3.6
Global Water Use by Source (million cubic meters)			
City water	18.0	16.9	15.4
Surface water	0.6	0.5	0.3
Well water	5.5	4.9	3.7
Total	24.1	22.3	19.4
Regional Water Use (million cubic meters)			
North America	10.9	11.0	10.6
South America	1.4	1.3	0.81
Europe	6.4	5.7	4.6
Asia Pacific	4.9	3.8	N/A
Asia Pacific (excluding China and Taiwan)	N/A	N/A	1.4
China (including Taiwan)	N/A	N/A	1.6
Middle East & Africa	0.48	0.5	0.46
Reuse From On-Site Wastewater Treatment Plant (million cubic meters)			
	1.6	1.6	1.2
Process Wastewater Discharge (million cubic meters)			
	11.2	10.3	9.1

Note: In 2019, we updated our regional business units in alignment with the Annual Financial Report. The regions have changed. China (including Taiwan) has been separated from Asia Pacific. The new Asia Pacific (excluding China and Taiwan) is shown as Asia Pacific (excluding China and Taiwan). Historical data for China (including Taiwan) for 2017 and 2018 is included as part of the Asia Pacific figure.



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