



On The Road  
to Better

# Helping Build a Better World

Integrated Sustainability  
and Financial Report 2023



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# On the Road to Better



Since our very earliest days, Ford has thrived on change and fresh thinking.

This year, as we celebrate our 120th anniversary, we welcome the opportunity to further evolve – to reimagine what we build, reinvent our workplaces and better understand the people we serve.

We are helping to build – not just a better vehicle, but a better world. A world where every person is free to move and pursue their dreams.

People everywhere are looking to businesses for solutions and, as this report demonstrates, we are taking bold actions to build trust with our stakeholders globally and create value responsibly.

We are shaping the future of mobility – one that's inclusive, equitable and sustainable. And we are transforming our company keenly focused on people and the planet.

In Ford's third Integrated Report, we are building on more than two decades of leadership in sustainability reporting to share the progress we have made over the last year.

We recognize we have a long way to go, but we are definitively **on the road to better**.

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## ABOUT THIS REPORT

Our purpose is bigger than building vehicles. We are helping to build a better world where every person is free to move and pursue their dreams.

To achieve our goals, we must build a strong, sustainable business that advances groundbreaking technology, supports people and protects our planet for generations to come. We are committed to maintaining our leadership position in sustainability reporting with a comprehensive group of reports that outlines our activities and progress across multiple areas.

We conducted a new materiality assessment and this year's Integrated Sustainability and Financial Report focuses on the key material topics identified in the assessment. The report chapters are based and organized around the key material topics as we examine our business through four prisms: Products and Services, Environment, People and Governance. In response to stakeholder feedback, the report has evolved to a more technical report that describes, with data, our clear progress toward our goals.

A supplementary [Summary Report](#) is focused on Ford's sustainability strategy and key data points from this full Integrated Report. This high-level summary uses storytelling and case studies to explain how we are meeting the needs of stakeholders through specific actions, products and services.

We have introduced a [Sustainable Financing Report](#) and have published a [Human Rights Progress Report](#) and a [Climate Change Report](#). You can also find all our indexes and ESG Overview on [our website](#).

We welcome you to share with us your feedback and any comments you may have at [sustaina@ford.com](mailto:sustaina@ford.com).

► [READ MORE ABOUT THE REPORTING SCOPE, BOUNDARIES AND DATA ASSURANCE PROCESS WE USED IN THIS REPORT ON P.99](#)

► [READ THE SUMMARY REPORT AND GO TO OUR WEBSITE FOR MORE INFORMATION AND STORIES](#)

This report includes forward-looking statements. Forward-looking statements are based on expectations, forecasts and assumptions by Ford management and involve a number of risks, uncertainties and other factors that could cause actual results to differ materially from those stated. For a discussion of these risks, uncertainties and other factors please see "Item 1A. Risk Factors" in our [Annual Report on Form 10-K](#) for the year ended December 31, 2022, as updated by subsequent [Quarterly Reports on Form 10-Q](#) and [Current Reports on Form 8-K](#).

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# Letter from Bill Ford and Jim Farley

This year, Ford is celebrating our 120th anniversary.

“Our values have always driven this company forward. The greatest measure of Ford’s success is whether we are improving the lives of our customers, employees and people in the communities in which we operate.”

**BILL FORD, EXECUTIVE CHAIR**



**BILL FORD**



**JIM FARLEY**

Though much about our world is changing, Ford’s purpose is the same today as it was when the first Model T was designed. We want to help build a better world where every person is free to move and pursue their dreams.

We believe that the long-term success of any business depends on how it creates value for its customers, employees, and communities, while also caring for the planet. Our shared challenge now is bringing even greater urgency to protecting the planet, advancing social equity and supporting a just transition to electric vehicles.

In 2022, the Ford team reimagined our products, services and the way we work to align with our environmental and social priorities. We announced that we would reorganize our global automotive operations into three distinct business segments: Ford Blue, Ford Model e and Ford Pro. As a result, we are forming deeper customer relationships, creating lifestyle-enhancing technology and pursuing exciting products. Last year we invested in renewable energy, new facilities and upgrades to existing facilities and announced the creation of thousands of jobs. We began the work of bringing electric vehicles to scale.

We are committed to creating a carbon-neutral transportation future. To that end, we plan to source 100% carbon-free electricity for our global manufacturing efforts by 2035. Last year, we made the largest renewable energy purchase from a utility in U.S. history. Ford also issued its inaugural Sustainable Financing Report, highlighting how the net proceeds from the company’s first Green Bond are being allocated to support the design and manufacturing of Ford’s electric vehicles. Lastly, we are supporting our suppliers, ensuring they set and meet science-based targets to reduce their carbon footprint, a critical element of our sustainability efforts that include clean air and clean water initiatives.

We are also using our purchasing power not only to fuel our business needs but also to protect our customers, communities and the environment. We have invested resources to better understand the origins of our raw materials and ensure they are sourced responsibly.

Last year, 3BL Media’s Best Corporate Citizen ranking listed Ford first in the human rights category, and the World Benchmarking Alliance recognized us as the top automotive company in human rights for the second time in a row. And through the work of the Ford Fund, our philanthropic arm, we continue to partner with communities to expand access to resources and opportunities that help move people forward.

Ford is undertaking a massive transformation to lead the electric vehicle revolution, and the accomplishments in this report signal our genuine commitment to doing so in a way that is consistent with our values. Around the world, we are planning to invest more than \$50 billion from 2022 through 2026 to create a carbon-neutral transportation future. We are on track to reach an annual targeted production run rate of 600,000 electric vehicles globally by the end of 2023, and 2 million by the end of 2026. Ford was the second best-selling electric vehicle brand in the U.S. in 2022. Mustang Mach-E production continues to grow with an order bank in the thousands – two-thirds of customers are new to Ford. F-150 Lightning has been America’s best-selling electric truck<sup>1</sup> since its launch and the E-Transit led the electric van segment in 2022 at 73% share in the U.S.

We take the long view at Ford, and we are excited and optimistic about the future. We know we are on the road to better.

Thank you for your interest in Ford Motor Company, and we invite you to read more about our progress and plans in this report.

**Bill Ford**  
Executive Chair

**Jim Farley**  
President and Chief Executive Officer

# Ford at a Glance



**76.2%**  
reduction in freshwater use since 2000

**\$2.3M**  
donated to disaster relief efforts around the globe

**\$64.3M**  
in charitable contributions to strengthen communities worldwide

**84**  
zero waste to landfill sites globally

**450,000+**  
charging plugs on the BlueOval Charge Network in Europe

**26,000+**  
charging locations (over 84,000 plugs) on the BlueOval Charge Network in North America



**172,639**  
employees

**76%**  
targeted reduction in Scope 1 and 2 greenhouse gas (GHG) emissions by 2035 from a 2017 base year, approved by Science Based Targets initiative (SBTi)<sup>2</sup>

**50%**  
targeted reduction in Scope 3 GHG emissions per vehicle kilometer from use of sold products by 2035 from a 2019 base year, approved by SBTi<sup>2</sup>

**\$50B+**  
planned investment from 2022 through 2026 in electric vehicles and the batteries that power them

**#1**  
commercial vehicle brand in the U.S. and Europe

**300k**  
Mobile Service experiences delivered globally



**10 awards**  
granted from the Insurance Institute for Highway Safety in 2022

**5 years**  
in a row Ford has been recognized as part of the Bloomberg Gender Equality Index

**CDP A**  
status in CDP Climate and Water

**\$4.25B**  
issued in Green Bonds since 2021

# Our Leadership in Sustainability

Ford Motor Company has a long history as an automotive and sustainability pioneer. We are helping to build a better world.

**Publish** our first Corporate Citizenship report, "Connecting with Society"

**Mark** 50 years of supporting communities through our philanthropic arm, Ford Motor Company Fund

1999



**Establish** Ford Driving Skills for Life education program  
**Adopt** the Code of Human Rights/Basic Working Conditions for our company and suppliers

2003



**Reopen** our Ford Rouge Center with its living roof, daylighting system, and waste minimization  
**Launch** the Escape Hybrid, the world's first hybrid SUV

2004

2005

**Receive** a score of 100 for the first time from Human Rights Campaign, which also names Ford a Best Place to Work for LGBT equality  
**Establish** Ford Volunteer Corps to provide community service opportunities for employees



2007

**Introduce** SYNC®, a hands-free connectivity system  
**Join** the United States Climate Action Partnership and UN Global Compact  
**Launch** 2008 Ford Mustang with the first soy foam based seats and headrests

2009

**Launch** the EcoBoost engine, which optimizes power and efficiency using turbocharging and direct gasoline injection

**Launch** the full electric Focus EV



2011

2013

**Open** Ford Resource and Engagement Center in Southwest Detroit – the first of five in Ford Fund's global network of community centers

# Our Leadership in Sustainability – continued



**Develop** the Ford Mobility plan, advancing connectivity, mobility, self-driving vehicles, and big data

**Begin** exploring self-driving vehicle technology

**Launch** the new, lightweight all-aluminum F-150



**Develop** the Transportation Mobility Cloud with Ford-owned Autonomic

**Meet** our goal, set in 2010, to reduce operational GHG emissions per vehicle produced by 30% (eight years early)

**Celebrate** 10 years of soybean-based foam in more than 18.5 million vehicles built in North America

**Conduct** first formal UN human rights saliency assessment

**Set** target to be carbon neutral no later than 2050

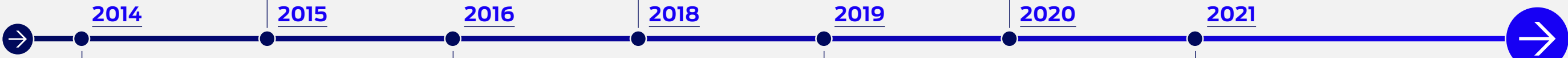
**Launch** Mustang Mach-E

**Design and Produce** a new powered air-purifying respirator and new ventilators, in collaboration with the UAW, produce face masks at Ford's Van Dyke Transmission Plant for internal Ford use and provide millions to local healthcare workers and communities

**Contribute** over \$1.13M to worldwide COVID relief through employee donation match; Direct \$3M to community organizations

**Sign** UN Women's Empowerment Principles

**Achieve** 75% absolute reduction in water use since 2000



**2014**

**Implement** Partnership for a Cleaner Environment (PACE) program

**Become** a signatory to the UN CEO Water Mandate

**Announce** a saving of more than 10 billion gallons of water

**2015**

**2016**

**Become** a signatory to the UN Sustainable Development Goals (SDGs)

**Become** the first OEM to join the Responsible Business Alliance (RBA)



**2018**

**2019**

**Launch** Sustainability Aspirational Goals

**Achieve** double A rating for CDP Climate and Water



**2020**

**2021**

**Announce** \$11.4B planned investment in BlueOval City and BlueOval SK Battery Park

**Launch** Ford Pro

**Launch** Mustang Mach-E

**Issue** \$2.5B inaugural Green Bond

**Issue** inaugural stand-alone Human Rights Report, a first for the U.S. automotive industry

**Announce** \$50B+ planned global investment in EVs, including battery production from 2022 through 2026

**Use** 100% recycled ocean plastics to produce automotive parts, the first automaker to do so



With so much still to do and guided by our purpose, Ford will continue to be at the forefront of positive change, and be definitively on the Road to Better.

# Financial Highlights

“Our product portfolio has never been stronger – with new vehicles that are hits with customers. We are making highly strategic capital allocation decisions to drive growth, strengthen our competitive position, and produce returns above our cost of capital.”

JOHN LAWLER, FORD CHIEF FINANCIAL OFFICER

## PEOPLE, PLAN, PRODUCTS POSITION FORD WELL FOR LONG TERM

Ford made rapid progress carrying out its ambitious Ford+ plan for growth and value creation in 2022. We have a world-class leadership team, made up of talented new and existing people that is helping us establish Ford as a leader in connected, electric vehicles. Customers made us the number two seller of electric vehicles in the U.S. during the year.

Our financial performance was below our expectations due to higher-than-expected costs and continued supply chain issues. We are investing in key technologies and capabilities – such as software, electric vehicle (EV) platforms, and EV batteries that will help us break constraints to build more must-have products for customers and grow for decades to come. We are working with urgency to improve our industrial platform, especially around quality and complexity reduction.

We generated a record \$9.1 billion in adjusted free cash flow during the year, as disciplined capital allocation, exciting enhancements to our vehicle portfolio and changes to streamline and de-risk our regional businesses together yielded higher-quality growth and improved returns. We have



## 2022 FINANCIAL HIGHLIGHTS

REVENUE:

**\$158.1<sub>B</sub>**

(2021: \$136.3B)

ADJUSTED EBIT<sup>3</sup>:

**\$10.4<sub>B</sub>**

(2021: \$10.0B)

ADJUSTED FREE CASH FLOW<sup>3</sup>:

**\$9.1<sub>B</sub>**

(2021: \$4.6B)

NET INCOME/(LOSS):

**\$(2.0)<sub>B</sub>**

(2021: \$17.9B)

ADJUSTED EBIT MARGIN<sup>3</sup>:

**6.6%**

(2021: 7.3%)

ADJUSTED EARNINGS PER SHARE<sup>3</sup>:

**\$1.88**

(2021: \$1.59)

incredible products – both on the road and in the pipeline. Our new vehicles are a hit with customers and our iconic nameplates remain market leaders.

In 2022, we began a complete overhaul of our industrial and quality operating system – product development, manufacturing and supply chain management – to deliver competitive cost and quality. We are already seeing an uptick in the initial quality of vehicles coming out of our plants in North America.

Our transition to a new operating model became effective January 1, 2023. We are now formally managing Ford according to three distinct, customer-focused business segments: Ford Blue, engineering iconic gas-powered and hybrid vehicles; Ford Model e, developing breakthrough EVs along with the digital platform and software for all our customers; and Ford Pro, helping commercial customers transform and expand their businesses with vehicles and services tailored to their needs. All three are growth businesses.

This segmentation has given us greater clarity and insight into each of the businesses and puts us on the path to building a stronger, customer-focused

Ford that generates sustainable, profitable growth and returns above our cost of capital.

Ford remains committed to making disciplined capital allocation choices about where to play and how to win, as evidenced by recent actions we have taken to restructure our operations outside of North America and divest our equity in Argo AI. This is yielding results, as reflected by the healthy performance of the South America and International Markets Group units in 2022, which both generated sustainable levels of profitability.

Our balance sheet remains strong, as we ended the year with \$32 billion of cash and \$48 billion of liquidity. This, coupled with improvement in adjusted free cash flow from our automotive operations, provides us with ample flexibility to both fund our Ford+ growth priorities and return capital to our shareholders. Going forward, we intend to target distributions of 40% to 50% of adjusted free cash flow.

This year, 2023, is pivotal for Ford, as we deploy Ford+ to execute and deliver value to all our stakeholders.

**WINNER**

Ford won the Green Debt Instruments Category at the 7th Annual Climate Bonds Awards and was recognized for issuing the largest-ever Green Bond from a non-financial U.S. corporation.

**\$1.75<sub>B</sub>**

SECOND GREEN BOND ISSUED  
AUGUST 2022

**\$2.50<sub>B</sub>**

INAUGURAL GREEN BOND ISSUED  
NOVEMBER 2021

**SUSTAINABLE FINANCING FRAMEWORK**

Ford introduced our Sustainable Financing Framework in 2021 to support the design, development and manufacture of our electric vehicles and create positive social and environmental benefits in the transition to EVs.

The net proceeds from each sustainable financing will be used to fund or refinance, in whole or in part, new or existing green or social projects, assets, or activities of Ford or Ford Credit.

The financing will be allocated and invested in four different areas:

- Clean transportation
- Clean manufacturing
- Making lives better
- Community revitalization

Ford has established a Sustainable Finance Committee of senior leaders to oversee the project evaluation and selection process and to ensure selected projects comply with the eligibility criteria.

**2022 Update**

In 2022, Ford issued its inaugural Sustainable Financing Report, highlighting first-year actions guided by the sustainable financing framework and an update on the allocation and impact of its 2021 Green Bond.

In 2021, Ford issued an inaugural Green Bond – a \$2.5 billion transaction which at the time was the largest of its kind by a non-financial U.S.-based corporation.

A majority of the proceeds of the first Green Bond were allocated to clean transportation projects and the manufacture of Ford’s electric vehicle portfolio, including spending for vehicles available to customers now – the Mustang Mach-E, F-150 Lightning, and E-Transit – and vehicles that will be unveiled in the future.

The remaining proceeds were allocated to development activities that will speed and expand introduction of breakthrough EVs into our product lineup. These investments include the development of eDrive motors and the unique tech-stack architecture required for electric vehicles. We have also allocated about \$55 million of spending to Ion Park, our battery R&D center in Michigan.

A second Green Bond of \$1.75 billion was issued in August 2022, proceeds from which Ford plans to allocate by the end of 2023.

We are proud that these investments are making a difference in the health of our planet and our business. We continue to evolve our process to show the indelible link between our commitment to sustainability and our continued success.

[▶ READ MORE IN THE SUSTAINABLE FINANCING REPORT](#)

[▶ READ MORE IN THE SUSTAINABLE FINANCING FRAMEWORK](#)

**CORPORATE REVOLVERS**

Ford also has over \$17 billion in revolving corporate credit facilities, which now include key sustainability metrics that further align our financing actions with our commitment to operate a safe, sustainable, and successful business – including our vehicle electrification carbon neutrality goals

We incorporated three sustainability-linked key performance indicators (KPIs) into our revolving and 364-day credit facilities. The KPIs are tied to global manufacturing emissions, manufacturing renewable energy and scope 3 passenger vehicle emissions in Europe.

[▶ READ MORE IN CLIMATE CHANGE REPORT](#)



# The Road to Better

Sustainability Strategy



# Our Material Topics

- Products and Services
- Environment
- People
- Governance

**Our material topics reflect Ford’s significant sustainability impacts – with due consideration given to global trends, the associated risks and opportunities, the interests and expectations of stakeholders, and Ford’s organizational purpose, strategies and goals.**

## OUR MATERIALITY PROCESS

We conduct a materiality assessment every two years.

Our 2023 materiality assessment is aligned with the Global Reporting Initiative (GRI) and has been updated to reflect emerging guidelines from GRI and the proposed European regulation CSRD (Corporate Sustainability Reporting Directive).

This Integrated Sustainability and Financial Report is structured to provide proof points and stories on Ford’s impacts on each of the material topics in the reporting period.

## Our Material Topics

In our 2023 sustainability materiality assessment, we identified five topics that have the highest impact on the environment and people, as well as our business and stakeholders. These topics are listed in alphabetical order, as opposed to order of importance.

- Climate change and carbon neutrality
- Electric vehicles, batteries and charging infrastructure
- Human capital management and diversity, equity and inclusion
- Human rights and supply chain management
- Product safety and quality

▶ [SEE THE FULL TOPIC DEFINITIONS AND ASSOCIATED SUBTOPICS IN APPENDIX 1 ON P.112](#)

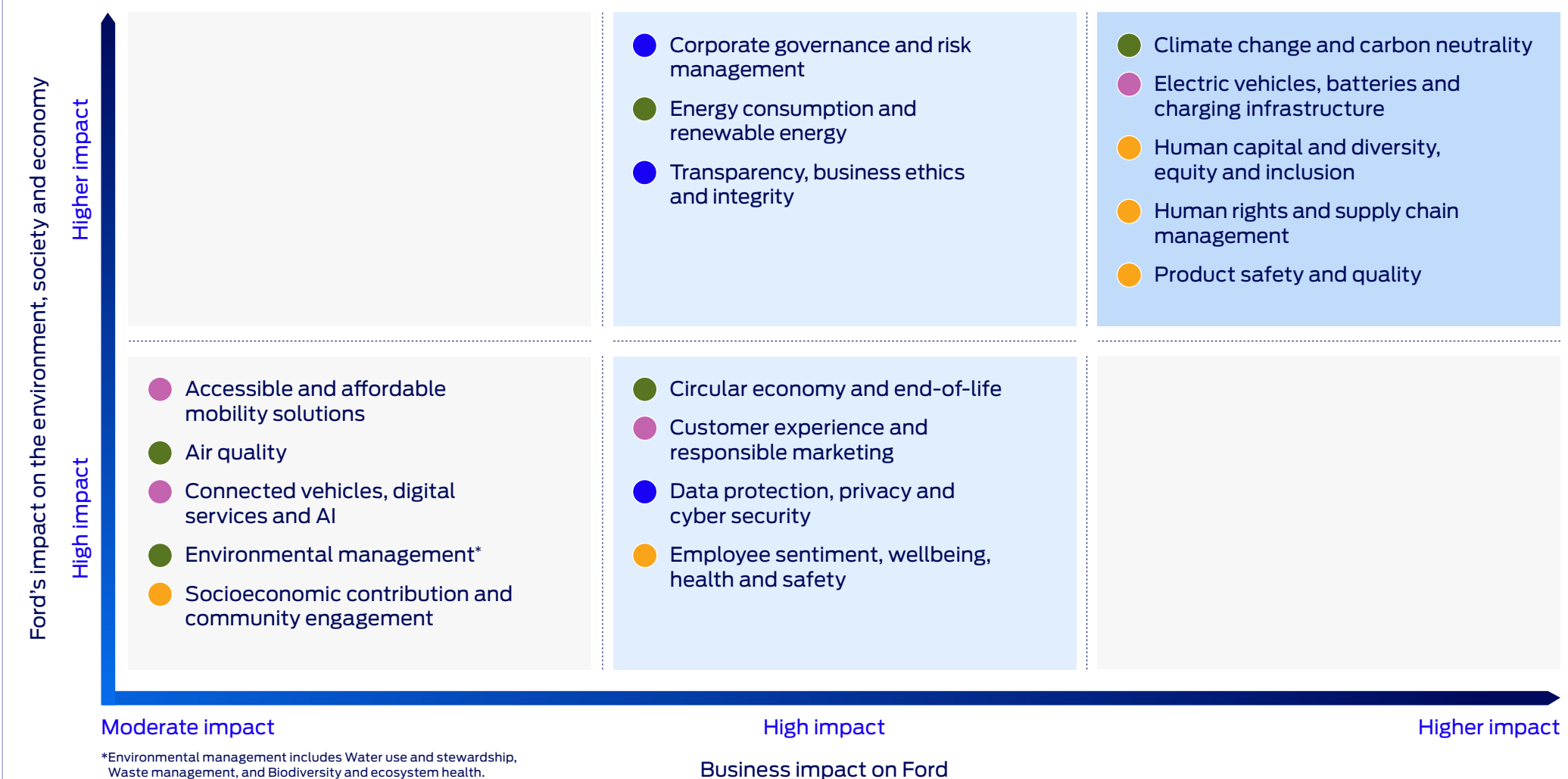
It’s important to note that a like-for-like comparison is not possible with the 2021 materiality assessment, as we have evolved our approach to materiality and reviewed and grouped some of the topics, for example, environmental management now includes water, waste and biodiversity.

Government relations, sustainable business growth and accountable and inclusive governance are now grouped under corporate governance and risk management.

Moreover, ESG topics are often linked to one another, and their interdependencies must be considered. For example, Just Transition sits

## MATERIALITY MATRIX

Topics are listed alphabetically



at the intersection of many material topics, and for the purpose of this report, it is covered under human capital management. Environmental justice, including climate justice, also sits at the intersection of many material topics, and is not called out in any one topic.

▶ [READ MORE ABOUT OUR PROCESS IN APPENDIX 1 ON P. 112](#)

▶ [READ MORE ABOUT OUR APPROACH TO MATERIALITY IN THE GRI INDEX](#)

## Matrix

The materiality matrix plots the ratings of each topic. The x-axis represents the impact that economic, environmental, and societal issues have on our business, while the y-axis represents Ford’s impact on the environment, people and economy. Topics found toward the upper right-hand corner of the matrix have a higher impact on environment, people and our business. Topics in each section are listed alphabetically.

# Our Sustainability Strategy

Our sustainability strategy is to make a positive contribution to society and the environment.



## OUR STRATEGIES

We have developed these specific strategies to address the collective challenges the world faces and achieve our Sustainability Aspirations outlined on the following page.

### PEOPLE STRATEGY

Diverse representation, equity and inclusion are the bedrock of our people strategy. We are committed to finding, hiring, developing and retaining great talent that is inclusive of everyone in the communities that we serve. We are committed to structural and systemic equity at every stage of the employee journey. Every employee is expected to support each other, to learn about people different than themselves and disrupt bias in everyday behaviors and decisions. Ford supports a just transition by preparing our workforce and local communities for the transition to EVs.

► [READ MORE IN THE HUMAN CAPITAL AND DIVERSITY, EQUITY AND INCLUSION SECTION ON P.61](#)

### HUMAN RIGHTS STRATEGY

Ford is committed to respecting human rights, including the right to clean air and clean water, across our entire business including our entire value chain. This commitment guides our decision-making and our actions, and extends to our suppliers and business partners, from the origin of the raw materials used to make our product to the end of life of these products. Guided by our [We Are Committed to Protecting Human Rights and the Environment policy](#), our goal is to ensure that everything we make, or that others make for us, meets or exceeds the minimum regulatory requirements and strives to create a positive impact on people and the planet.

► [READ MORE IN THE HUMAN RIGHTS AND SUPPLY CHAIN MANAGEMENT SECTION ON P.74](#)

► [READ MORE IN THE HUMAN RIGHTS PROGRESS REPORT](#)

### CLIMATE CHANGE STRATEGY

Ford's leadership in electric vehicles is driving our climate change strategy. To achieve our carbon neutrality goal, we are focusing on three areas that account for approximately 95% of our carbon dioxide emissions – our vehicles, our operations, and our supply chain.

► [READ MORE IN THE CLIMATE CHANGE AND CARBON NEUTRALITY SECTION ON P.41](#)

► [READ MORE IN THE CLIMATE CHANGE REPORT](#)

### SUSTAINABLE MATERIALS STRATEGY

Using recycled and renewable materials helps reduce waste and lower need for new materials. We aspire to use only recycled or renewable content in vehicle plastics. Our near-term target is to use 20% recycled or renewable plastics by 2025 in new vehicle designs for North America and Europe, including Turkey, and 10% for China. Ford's closed loop recycling system maximizes aluminum recycling in our plants, reduces the energy needed to create new primary aluminum and minimizes the need for raw materials.

► [READ MORE IN THE CIRCULAR ECONOMY AND END-OF-LIFE SECTION ON P.51](#)

### ENERGY STRATEGY

We are working toward sourcing 100% carbon-free electricity for our global operations by 2035 using a mix of wind, solar power, nuclear, geothermal, biomass, and hydro to power our operations.

► [READ MORE IN THE ENERGY CONSUMPTION AND RENEWABLE ENERGY SECTION ON P.49](#)

### WATER STRATEGY

Ford is committed to reducing water use and aspires to use freshwater only for human consumption, so that it does not detract from the local community's ability to have access to freshwater. To further decrease our water consumption, we continue to integrate more water efficient processes and technologies in our manufacturing systems.

► [READ MORE IN THE WATER USE AND STEWARDSHIP SECTION ON P.55](#)

### WASTE STRATEGY

We are focused on managing and minimizing the waste we generate to reach true zero waste to landfill across our global operations. We aim to eliminate single-use plastics from our operations by 2030.

► [READ MORE IN THE WASTE MANAGEMENT SECTION ON P.57](#)

It takes big dreams and bold action to be a leader in sustainability. Our sustainability efforts drive our business today, and our aspirations chart a path forward on the road to better.



# Accelerating Progress

As we take leadership of the electric revolution, we can reduce emissions from transportation and create new mobility solutions that have a positive impact on human health and safety. Below, we have summarized our progress.

## SUSTAINABILITY ASPIRATIONS

### Climate Change



Achieve carbon neutrality no later than 2050

► [READ MORE IN THE CLIMATE CHANGE AND CARBON NEUTRALITY SECTION ON P.41](#)

## GOALS

### Vehicles:

Accelerate our electric vehicle strategy

Improve fuel economy across our global vehicle lineup, consistent with regulatory requirements and our commitment to reducing greenhouse gas (GHG) emissions

Offer alternative fuel vehicles

### Facilities:

Reduce global manufacturing GHG emissions by 18% by 2023 (2017 baseline)

### Suppliers:

Establish baseline for supplier carbon dioxide emissions and develop a joint roadmap for performance improvements

Migrate the Partnership for A Cleaner Environment (PACE) program to Manufacture 2030 (M2030) and work with selected suppliers to reduce our collective environmental footprint through M2030's new climate program

## PROGRESS

- By the end of 2026, targeting an annual production of more than 2 million EVs; expect EVs to represent half of global sales volume by 2030
- Planned investment of \$50 billion in electric vehicles and batteries from 2022 through 2026
- Launched the F-150 Lightning and E-Transit vehicles, expanding our lineup of iconic electric vehicles

- EcoBoost engines are deployed across nearly 100% of the portfolio, and combine engine downsizing, turbocharging, direct fuel injection, and twin-independent variable cam timing to improve fuel economy
- Ford Maverick pickup is the first-ever standard full-hybrid pickup in America
- Modern diesel engines can achieve 20–30% better fuel economy than comparable gasoline engines in specific markets and segments

- All our diesel vehicles are compatible with low-level biodiesel blends

- Achieved a 40% reduction in our absolute manufacturing GHG footprint from 2017 through improved energy efficiency and conservation at our facilities and in our manufacturing processes
- Construction is underway at BlueOval City in Tennessee, which is designed to be carbon neutral once fully operational in 2025

- Received GHG emissions data from 313 out of 465 parent production suppliers, 19% more than 2021, using CDP Supply Chain program's Climate Change Questionnaire
- Joined First Movers Coalition. As a founding member of the coalition's new aluminum sector, Ford committed that at least 10% of primary aluminum and steel purchases will have near-zero carbon emissions by 2030

- Launched new M2030 climate program, helping our suppliers establish science-based targets, and measure, manage and reduce climate emissions, water usage, and waste. Invited 3,000 global Tier 1 suppliers to participate in Phase 1

## LINK TO SDGS



**SUSTAINABILITY ASPIRATIONS**

# Energy



Use 100 percent carbon-free electricity in all manufacturing by 2035

► [READ MORE IN THE ENERGY CONSUMPTION AND RENEWABLE ENERGY SECTION ON P.49](#)

**GOALS**

Achieve 32% renewable electricity by 2023 and 100% carbon-free electricity by 2035

**PROGRESS**

- Global amount of renewable electricity for 2022 was 42.6%
- Global amount of carbon-free electricity for 2022 was 60.6%
- All purchased electricity for manufacturing in Europe is now renewable
- All manufacturing locations in Mexico are now powered with 100% carbon-free electricity
- All manufacturing facilities in Ohio achieved 100% carbon-free electricity sourcing in 2022
- By 2025, all of our manufacturing facilities in Michigan expect to achieve 100% carbon-free electricity sourcing
- Ford was awarded a Thoroughbred Sustainability Partner Award from logistics supplier Norfolk Southern in the Energy Efficiency category

**LINK TO SDGS**

# Materials



Use only recycled or renewable content in vehicle plastics

► [READ MORE IN THE CIRCULAR ECONOMY AND END-OF-LIFE SECTION ON P.51](#)

Expand our use of sustainable materials focusing on plastics, battery recycling, and sustainable sourcing

- More than 85%<sup>4</sup> of vehicle parts and materials are recycled and reused at their end of life
- Established an interim target of 20% renewable and recycled plastics by 2025 in new vehicle designs for North America, Europe and Turkey and 10% in China
- Ford is the first automaker to use 100% recycled post-consumer plastics to produce automotive parts
- The closed loop recycling system used to build F-series recovers up to 20 million pounds of high-strength, military-grade, aluminum alloy per month
- Since 2000, we have used nine industry- and world-first plant-based materials in our production vehicles
- Researching the possible use of bamboo, olive tree fibers and olive pits, hemp fiber, and captured carbon dioxide as materials



# Air



Attain zero emissions from our vehicles and facilities

► [READ MORE IN THE AIR QUALITY SECTION ON P.54](#)

Air emissions reductions beyond CO<sub>2</sub>

- Working to reduce vehicle emissions of non-CO<sub>2</sub> pollutants, in accordance with increasingly stringent standards around the world
- From 2021 to 2022, Ford manufacturing facilities in China have reduced VOC emissions by over 500 metric tons through various management and engineering investment measures



**SUSTAINABILITY ASPIRATIONS**

# Water



Make zero water withdrawals for manufacturing processes

Use freshwater only for human consumption

► [READ MORE IN THE WATER USE AND STEWARDSHIP SECTION ON P.55](#)

# Waste



Reach true zero waste to landfill across our operations

Eliminate single-use plastics from our operations by 2030

► [READ MORE IN THE WASTE MANAGEMENT SECTION ON P.57](#)

**GOALS**

Reduce absolute freshwater use by 15% by 2025 (2019 baseline)

Continue to work toward using freshwater sources only for human consumption

Work with Ford suppliers to reduce our collective environmental footprint through Manufacture 2030 climate program

Engage with our supply chain to understand and reduce its water footprint

Reduce waste to landfill by 35% by 2022 when measured in kg per unit (2017 baseline)

Reduce general trash by 25% by 2022 when measured in kg per unit (2017 baseline)

Improve waste avoidance by 15% by 2022 when measured in kg per unit (2017 baseline)

Work with selected suppliers to reduce our collective environmental footprint

**PROGRESS**

- 21.7% reduction in absolute freshwater use since 2019
- More than 186.3 billion gallons of water saved since 2000

- Installed additional non-water-based technologies and using alternative sources such as other companies' treated wastewater
- Use of offsite alternative water was 8% at facilities in water scarce areas
- Ford Louisville Assembly Plant earns EPA Pollution Prevention Award for water recycling initiative

- Launched new M2030 climate program, helping our suppliers establish science-based targets, and measure, manage and reduce climate emissions, water usage, and waste. Invited 3,000 global Tier 1 suppliers to participate in Phase 1

- 258 of our suppliers (31% increase over last year) responded to the CDP Water questionnaire

- 84 zero waste to landfill (ZWTL) sites
- 74% of manufacturing facilities are true ZWTL

- Ford facilities around the world sent approximately 18,400 metric tons of waste to landfill, 14% more than in 2021

- Working with suppliers to increase the use of eco-friendly packaging
- Launched new M2030 climate program, helping our suppliers establish science-based targets, and measure, manage and reduce climate emissions, water usage, and waste. Invited 3,000 global Tier 1 suppliers to participate in Phase 1

**LINK TO SDGS**

**SUSTAINABILITY ASPIRATIONS**

# Human Rights



Source only raw materials that are responsibly produced

► [READ MORE IN THE HUMAN RIGHTS AND SUPPLY CHAIN MANAGEMENT SECTION ON P.74](#)

**GOALS**

We are committed to protecting human rights and the environment

Help suppliers build their capacity to manage supply chain sustainability issues

Assess Tier 1 suppliers' compliance with Ford's [Supplier Code of Conduct](#) requirements and expectations

Build capacity of raw material supply chains to responsibly source/produce to third-party standards

Increase transparency, traceability and due diligence in our EV battery material supply chains

**PROGRESS**

- Updated our [We Are Committed to Protecting Human Rights and the Environment](#) policy
- Ford explicitly supports a living wage
- Ranked number one in the Corporate Human Rights Benchmark automotive sector for the second time in a row. Overall Ford ranked number 6 out of 127 companies assessed

- Integrated sustainability metrics into sourcing decisions
- Trained 844 Ford purchasing employees and 2,647 other Ford employees in Supply Chain Sustainability topics
- Trained 979 suppliers in various sustainability-related topics

- Expanded our Sustainability Self-Assessment Questionnaire (SAQ) program to 25 more suppliers to verify supplier alignment with [Supplier Code of Conduct](#)
- Conducted 1,252 total supplier audits since 2003 and 1,695 follow-up audits

- Required mica and cobalt due diligence submission (100% response rate received) and launched new lithium and nickel due diligence
- Underwent an independent audit of Ford's cobalt, lithium and nickel due diligence programs as defined by the Organisation for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- Continued funding for women's empowerment project to advance financial literacy to ensure business and co-op success for artisanal cobalt miners in the Democratic Republic of the Congo (DRC)

**LINK TO SDGS**

**SUSTAINABILITY ASPIRATIONS**

# Safety

Work toward a future that is free from vehicle crashes and workplace injuries



► [READ MORE IN THE PRODUCT SAFETY AND QUALITY SECTION ON P.80](#)

**GOALS****Product Safety and Quality:**

Design and manufacture vehicles that offer innovative driver assist technologies

Play a leading role in vehicle safety and driver assist research and innovation

**Employee Health and safety:**

Fatalities target is always zero

Zero serious injuries, attain industry competitive lost time and drive continuous improvement

Maintain or improve employee personal health and wellbeing

**PROGRESS**

- Automatic Emergency Braking (AEB) is standard on 97.8% of light-duty vehicles under 8,500 pounds and 76.4% of vehicles in the 8,501 to 10,000-pound range in the U.S.
- Ford BlueCruise 1.2<sup>5</sup> and Lincoln ActiveGlide 1.2 offer new features and system updates that make hands-free highway driving even better. These technologies hit the market in fall 2022 starting with the Mustang Mach-E

- For the 2022 model year, a total of 20 Ford and Lincoln nameplates were rated with 5-Star Overall Vehicle Scores in one or more markets across the U.S., Europe, China, Australia and New Zealand New Car Assessment Programs (NCAP) as of January 2023
- In the J.D. Power 2022 Initial Quality Study (IQS) Ford Motor Company’s rank position improved to third among 15 OEMs in the industry, up from seventh in 2021

- In 2022 we experienced two fatalities – both in our joint venture operations. Each loss of life is unacceptable. Consequently, cross-functional teams worked extensively to identify and implement controls to prevent recurrence of fatal hazards

- Our global Lost-Time Case Rate (LTCR) was 0.39

- We remain committed to advancing a culture of wellbeing, which encompasses the financial, social, mental, emotional, physical, and professional needs of our employees
- In an employee survey on work-life balance 90% of the respondents, who were primarily salaried employees, indicated that they are empowered to have the work arrangement they believe is best for their jobs and 87% indicated their people leader provides the safety needed to openly share their opinion.

**LINK TO SDGS**

**SUSTAINABILITY ASPIRATIONS**

# Diversity, Equity and Inclusion (DEI)



Create a truly diverse culture where everyone feels like they belong

► [READ MORE IN THE HUMAN RIGHTS AND DIVERSITY, EQUITY AND INCLUSION SECTION ON P.61](#)

**GOALS**

Embed DEI across the enterprise

Create an environment of inclusion

Drive DEI-focused learning to create awareness, deepen understanding and lead with action

Promote gender and racial equity while reducing bias in all people and business policies, processes and systems

Continue to purchase from small businesses and businesses owned by veterans, minorities, women, LGBTQ+ people, and people with disabilities

**PROGRESS**

• Created DEI Objective for all salaried employees globally

• Launched Indigenous Peoples Employee Resource Group, our 12th global Employee Resource Group (ERG)  
• Received recognition as Disability Equality Index – 100% Top Scorer, Best Places to Work for Disability Inclusion for the sixth year in a row

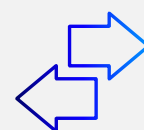
• Hosted third annual global DEI Week  
• Launched robust DEI learning strategy globally including experiential events, online learning and the Everyday Inclusion App

• Published U.S. Gender and Race/Ethnicity Metrics and our annual EEO-1 report  
• For the fifth year in a row, Ford was included in the Bloomberg Gender-Equality Index (GEI)

• In 2022 we purchased goods and services worth \$10.78 billion from minority-owned suppliers, women-owned businesses, veteran-owned companies, and small businesses

**LINK TO SDGS**

# Access



Drive human progress by providing mobility and accessibility for all

► [READ MORE IN THE IMPROVING ACCESS FOR EVERYONE SECTION ON P.33](#)

Advance Ford L2+ and L3 Advanced Driver Assistance Systems (ADAS) systems

• Ford made a strategic decision to shift our resources to developing advanced driver assistance systems, and not autonomous vehicle technology  
• Ford is focused on offering L2+ and L3 driver assistance applications that can add convenience and help make transportation even safer  
• We remain committed to using vehicles and technology to expand access and provide equitable opportunities for people and communities to move forward. For example, at our Ford Resource and Engagement Centers in Detroit, we leverage mobility solutions to increase access to fresh food in food deserts and for food insecure families



# How We Create Sustainable Value

## Our Purpose

To help build a better world, where every person is free to move and pursue their dreams.

### OUR ENABLERS

#### HUMAN CAPITAL

- 172,639 employees
- 3,000+ U.S. dealers
- 1,600+ Tier 1 suppliers
- 12 internal Employee Resource Groups

#### SOCIAL CAPITAL

- Community engagement for 70+ years through Ford Motor Company Fund, our philanthropic arm
- Partnerships with nonprofits, community organizations and Ford dealers in 38+ countries
- Strategic partnerships with investors, industry bodies, and partner companies
- Blue Table Forum
- STEM programs and EV training centers to develop future workforce

#### FINANCIAL CAPITAL

- \$50 billion planned investment in electric from 2022 through 2026
- Issued \$4.25 billion through two Green Bond issuances under our Sustainable Financing Framework, all proceeds to go toward Clean Transportation

#### MANUFACTURED CAPITAL

- 44 manufacturing and assembly plants<sup>6</sup>
- 13 engineering and research facilities
- Product Development Center
- Modernizing EV production

#### INTELLECTUAL CAPITAL

- 2,883 global patents issued
- 456 patents issued in EV technology
- Connectivity and connected services
- BlueOval Charge Network
- Global Data Insight and Analytics
- D-Ford human-centered design process

#### NATURAL CAPITAL

- 10.56 billion kWh of energy used
- 42.6% of electricity used was renewable, and 60.6% carbon-free
- 15.1 million m<sup>3</sup> of freshwater used at manufacturing facilities
- 9 renewable materials used

### OUR BUSINESS



#### 1 DESIGN

We consider sustainability criteria to reduce our vehicles' impacts

#### 2 RESPONSIBLE SOURCING

We require suppliers to have environmental and social standards aligned with ours

#### 3 LOGISTICS (INBOUND)

We encourage our logistics providers to transport and deliver materials and parts efficiently

#### 4 MANUFACTURING

We invest in lean processes and world-class factories to create positive impact

#### 5 LOGISTICS (OUTBOUND)

We encourage our logistics providers to transport finished vehicles efficiently

#### 6 SALES AND SERVICE

We are reimagining customer experience by listening and adapting to their needs

#### 7 OUR VEHICLES IN USE

We provide a safe and enjoyable experience with high-quality vehicles

#### 8 MOBILITY

We are exploring new solutions to support urban mobility

#### 9 END OF VEHICLE LIFE

Over 85%<sup>4</sup> of our vehicle parts and materials are recycled and reused

### OUR IMPACT IN 2022

#### EMPLOYEES

- Health and wellbeing programs for employees and families
- Competitive salaries and benefits
- Employee training and development
- Culture of caring and inclusion

#### CUSTOMERS

- 4.23 million wholesale vehicles sold globally, including 128,000 EVs
- Access to EV charging networks
- Remote Pickup & Delivery and Mobile Service vans
- Improved vehicle safety and driver assist technologies

#### INVESTORS

- Strong balance sheet
- Financial flexibility to invest in Ford+ growth plan
- Disciplined capital allocation
- Focus on total shareholder return
- More transparent reporting for investors

#### SUPPLIERS

- Supplier Code of Conduct requires suppliers to have an aligned code and cascade requirements to their suppliers
- Integrated sustainability metrics into sourcing decisions
- CO<sub>2</sub> emission reduction targets collected and assessed to develop joint roadmap supporting carbon neutrality aspiration
- Responsible sourcing of raw materials
- Sustainability best practices shared with suppliers through PACE and M2030 climate programs
- \$10.78 billion spent with minority-, women- and veteran-owned companies and small businesses
- Training to build capacity to manage supply chain sustainability issues

#### COMMUNITIES AND SOCIETY

- Invested \$64.3 million in charitable contributions
- Over \$2.2 billion invested in communities globally since 1949
- 1.7 million employee volunteer hours since 2005 through the Ford Volunteer Corps
- Delivered 2.1 million pounds of food distributed to nearly 6,200 households through Ford Resource and Engagement Centers in Detroit
- Responsible mineral sourcing program provides training to advance financial literacy for women in the Democratic Republic of the Congo

#### PLANET

- 35.4% reduction in Scope 1 and 2 GHG emissions from worldwide operations since 2017
- 76.2% reduction in freshwater use since 2000
- 84 true zero waste to landfill sites
- Recycle millions of pounds of aluminum per month

# Our Stakeholders



**Through dialogue with our stakeholders we build trust and have the support we need to achieve both our business goals and sustainability aspirations.**

## [CERES STAKEHOLDER COMMITTEE](#)

As in recent years, a stakeholder team selected by Ceres provided recommendations for our future reporting. Representing a range of constituencies and expertise, the most recent Ceres Stakeholder Committee convened on Jan. 31, 2023. Ford's responses to select recommendations, which have been summarized by Ford, are below.

► [READ MORE ABOUT OUR STAKEHOLDERS AND HOW WE ENGAGE WITH THEM IN OUR GRI INDEX](#)

### **Ceres Recommendation:**

Support strong fuel economy standards for model year (MY) 2027 through MY2030.

### **Ford Response:**

Ford is proud to be one of the first U.S. automakers to align with the international community to limit global warming as part of the Paris Climate Agreement. We also support the authority of California and other states to protect people's health and combat climate change by establishing and enforcing air pollution standards and zero-emission vehicle requirements for new vehicles within their states. Ford supports EPA's proposals to increase the stringency of fuel economy standards, which intend to deliver similar GHG reductions as the California Framework Agreement.

► [READ MORE IN THE CLIMATE CHANGE REPORT](#)

### **Ceres Recommendation:**

Ensure Ford is on track to meet its EV sales goals by doubling down on production, providing a wider selection of EVs, and reducing prices.

### **Ford Response:**

Ford is on track to reach an annual targeted production run rate of 600,000 electric vehicles globally by the end of 2023, and 2 million by late 2026. We have added battery chemistries and secured contracts for 100% of the battery capacity needed to deliver on our 2023 EV run rate goal. We are deep into the development of our second generation EVs. Using learnings from our first generation EVs, they are being designed with a ground-up, systems-based approach that will unlock incredible complexity reduction and energy efficiency.

► [READ MORE IN ELECTRIC VEHICLES, BATTERIES AND CHARGING INFRASTRUCTURE ON P.24](#)

### **Ceres Recommendation:**

While focusing on increasing EV production, continue striving to increase the efficiency of all of Ford's vehicles

### **Ford Response:**

As we expand our EVs, we are ensuring that our internal combustion engine (ICE) powertrains continue to improve fuel economy while meeting increasingly stringent emissions criteria. Our proven EcoBoost engines are deployed across nearly 100% of the portfolio, and combine engine downsizing, turbocharging, direct fuel injection, and twin-independent variable cam timing to improve fuel economy. We offer efficient hybrid and plug-in hybrid vehicles including the Maverick hybrid truck. In Europe, the Kuga is the best-selling plug-in hybrid electric vehicle (PHEV) for the second year in a row.

► [READ MORE IN ICE AND HYBRID ADVANCEMENTS ON P.30](#)

### **Ceres Recommendation:**

As Ford designs for an all-EV future, it should take advantage of this complete transformation to design with safety for all, including pedestrians and cyclists, as a priority.

### **Ford Response:**

Our dedication to safety extends beyond the vehicle to include pedestrians, all road users and the general public. Across our product portfolio, our vehicles incorporate state-of-the-art passive and active safety features, as well as driver assist technology to help prevent or mitigate accidents. Ford's Automatic Emergency Brake (AEB) Pre-Collision Assist feature<sup>7</sup> scans the road ahead and can alert drivers to potential collisions with vehicles or pedestrians directly in the driver's path<sup>8</sup>. AEB is standard on 97.8% of light-duty vehicles under 8,500 pounds and 76.4% of vehicles in the 8,501 to 10,000-pound range in the U.S.

Ensuring the safety and quality of EV batteries is crucial. Ford EVs are subjected to crash testing that far exceeds the stringency of regulatory requirements. For example, we conduct front, side and rear impact crash tests at 5mph above the speeds required by safety regulations, which translates to increased impact severities ranging from 20-35% as compared to what is required by law.

Our medical and Industrial Hygiene and Toxicology teams are supporting new processes globally that will be used to help protect employees while

manufacturing battery electric vehicles. Ford also provides High Voltage safety publications including a Workshop Manual for vehicle technicians and an Emergency Responders Guide for first responders.

► [READ MORE IN PRODUCT SAFETY AND QUALITY ON P.80](#)

### **Ceres Recommendation:**

Use Ford's leverage to address systemic issues that affect raw material sourcing – Work with suppliers to increase transparency at mines and refineries.

### **Ford Response:**

As we take leadership of the electric vehicle revolution, we are building an EV supply chain that upholds our ESG commitments. We recognize that some of the EV components include minerals with inherent risk due to extraction processes and country locations. In 2021, we initiated supply chain mapping and auditing to understand the sources of the cobalt, nickel and lithium used in our EVs. This work continues with expanded scope to include plug-in hybrid electric vehicle (PHEV) supply chains and more audits. We continue to partner with RCS Global to conduct responsible sourcing, third-party audits on key battery materials down to the mine site using the Initiative for Responsible Mining Assurance (IRMA) Critical Requirements. We are requesting IRMA certified raw materials and working with mining companies to become more familiar with IRMA. In addition, we are requesting processing facilities to apply similar independent or third party standards that demonstrate their actions toward responsible sourcing.

► [READ MORE ABOUT RESPONSIBLE MATERIAL SOURCING ON P.77](#)

► [READ MORE IN THE HUMAN RIGHTS PROGRESS REPORT](#)

### **Ceres Recommendation:**

Build on Ford's existing just transition work to develop a comprehensive strategy and disclosure.

### **Ford Response:**

Ford supports a just transition by preparing our workforce and local communities for the transition to EVs. Ford is committed to providing hourly and salaried employees with the opportunity to upskill and reskill with supportive training programs both internally and with the help of community partners.

► [READ MORE ABOUT A JUST TRANSITION IN OUR HUMAN RIGHTS PROGRESS REPORT](#)



# The Road to Progress

Products and Services

# Overview

The intent of all our work and investment in product development, electrification and connectivity is to make EVs safe, accessible and affordable, while enriching the consumer experience and creating value for our stakeholders. We will not stop reimagining how EVs and the batteries that power them are designed, manufactured and recycled – at scale. At the same time, we remain committed to continuing to innovate, improve fuel economy and reduce emissions across our entire portfolio of vehicles.



### We are leading the electric vehicle revolution

We are turning our EV aspirations into reality. In 2022, the first F-150 Lightning trucks and E-Transit vans rolled off the assembly line, joining the popular Mustang Mach-E. In addition to offering electric versions of our most popular vehicles, we are preparing to deliver more of what customers love: performance, capability and productivity.

As we progress toward our electric future, we are developing the infrastructure and supply chain to support our transformation.

We are expanding our capabilities to advance mobility innovations around the world.

Powering the freedom to move is central to our purpose. We are investing to help make movement more accessible and seamless while improving the safety, efficiency, and sustainability of the transportation ecosystem.

### We treat customers like family

Customers come first at Ford. We strive to strengthen our relationship with our customers at every touchpoint and interaction.

### We are transforming the vehicle ownership experience

We are bringing our vision of always-on experiences to life for retail and commercial customers, with the goal of making every customer interaction with us easier, more convenient, and more personalized.

### Sustainable Development Goals

We are contributing to the following UN Sustainable Development Goals (SDGs) through actions outlined in this chapter:



### OUR SUSTAINABILITY ASPIRATIONS



**Access:** Drive human progress by providing mobility and accessibility for all



**Climate Change:** Achieve carbon neutrality no later than 2050

# Electric Vehicles, Batteries and Charging Infrastructure

**Access:** Drive human progress by providing mobility and accessibility for all

**Climate Change:** Achieve carbon neutrality no later than 2050

**Around the world, we are investing more than \$50 billion from 2022 through 2026 in electric vehicles and batteries.**

**PREPARING TO LEAD THE ELECTRIC VEHICLE REVOLUTION**

Ford has an ambitious plan to lead the electric vehicle revolution. We are on track to reach an annual targeted production run rate of 600,000 electric vehicles globally by the end of 2023, and 2 million by late 2026. Electric vehicles are expected to account for half of Ford’s sales by 2030, and in Europe 100% of passenger cars are expected to be all-electric by 2030 and 100% of light commercial vehicles to be zero-emission by 2035. Our plan to lead the electric revolution is based on four points:

- Electrifying our icons, including Mustang Mach-E, F-150 Lightning and E-Transit, scaling production to meet demand and creating new icons that compete in key segments of the market
- Creating a robust EV supply chain from battery production to raw materials sourcing that upholds Ford’s sustainability and human rights commitments
- Reimagining how EVs are built by creating an ultra-efficient EV manufacturing ecosystem
- Expanding the BlueOval Charge Network and the FordPass Charging Network to instill confidence in EVs

We are already making meaningful progress. At the end of 2022, we were the number two EV company in the U.S. In 2022, our EV sales grew at about twice the rate of the industry with more than 60% of our sales to customers new to Ford.

We are putting the industrial system in place to rapidly scale our EV production by building new battery and EV assembly capabilities and creating jobs. In 2022, we broke ground at BlueOval City in Tennessee, the most advanced auto production complex in our history where we will assemble Ford’s next electric truck. Construction is also underway on BlueOval SK battery plants in Kentucky. In Europe, plants in Germany and Spain will be dedicated to EV production, and we are moving ahead with a new commercial vehicle battery facility in Turkey.

It’s all part of our strategy to achieve carbon neutrality globally no later than 2050. Ford is proud to be one of the first U.S. automakers to align with the international community to limit global warming as part of the Paris Climate Agreement. We also support the authority of California and other states to



protect people’s health and combat climate change by establishing and enforcing air pollution standards and zero-emission vehicle requirements for new vehicles within their state. And we are proud to be part of RouteZero, a global coalition working toward 100% zero-emissions cars and vans globally by 2040, and in leading markets no later than 2035.

► [READ MORE IN THE CLIMATE CHANGE AND CARBON NEUTRALITY SECTION ON P.41](#)

**ELECTRIFYING OUR ICONIC VEHICLES**

The demand for EVs is real – and growing. For the first time, the majority of consumers who intend to buy a car in the next two years say they will choose an EV or hybrid vehicle, up 11% from 2021 and 22% from 2020, according to research published by EY. Most of that increase in demand is for full EVs, and we are ready for them.

Our electric vehicle strategy is to play to our strengths and deliver an appealing lineup of iconic nameplates that our customers love and value. We are focused on higher volumes and lower complexity to achieve scale and maximize margins per vehicle.

Customer reception to our first-generation electric vehicle lineup has exceeded our expectations. There is no greater example of this than the F-150 Lightning, which represents a milestone in America’s shift to EVs. Launched in April 2022, the F-150 Lightning is already America’s best-selling electric pickup<sup>9</sup> thanks to features like its mega power frunk. It is the smartest, most innovative F-150 that Ford has ever built, with the freedom of a 9.6-kilowatt smart power plant on wheels, over-the-air (OTA) software updates that will make it better over time and Built Ford Tough capability.

Built at the Rouge Electric Vehicle Center, a technologically and environmentally advanced EV manufacturing facility within Ford’s historic Rouge Complex, the F-150 Lightning follows the unprecedented success of the Ford F-Series, America’s best-selling truck for 46 years in a row<sup>10</sup>.

It’s also winning awards. The F-150 Lightning was named 2023 MotorTrend truck of the year<sup>®</sup>, North American<sup>™</sup> Truck of the Year and Edmunds Top Rated Electric Truck for 2023.

Ford also introduced its first commercial EV in 2022 with E-Transit, the electric version of America’s best-selling commercial van and the first of two EVs purpose-built for Ford Pro commercial customers. In 2022, it was the top-selling electric van in the U.S. with a 73% market share. In Europe, E-Transit also was the best-selling EV in the two-ton segment, with a 25% share of the market.

The E-Transit is designed to deliver new levels of productivity to customers in the one-ton van segment. Ford brought the global power of its research, engineering and software capabilities to bear on the E-Transit, combining advanced EV technology with Ford Pro’s digital ecosystem of software and services to help businesses reduce the cost of ownership, work more effectively, and simplify the transition to EVs. Europe also announced the all-new E-Transit Custom in 2022, an all-electric version of the region’s best-selling van, with production starting in late 2023.

The Mustang Mach-E remains extremely popular, notching recognition as the second best-selling electric SUV in America with more than 150,000 vehicles produced. 2022 sales increased 45% over the prior year.

## Electric Vehicles, Batteries and Charging Infrastructure – continued



Ford is now offering the Mustang Mach-E in 37 countries worldwide with plans to add more markets next year. More than eight in 10 Mustang Mach-E customers in the U.S. and nine in 10 customers in Europe have replaced an internal combustion vehicle with Mustang Mach-E.

Ford Mustang Mach-E GT Twister Special Edition made its world debut at the 2022 Chengdu Motor Show. With the Cyber Orange body color, this Special Edition references famous elements of Mustang’s classic “Twister”, including a Mustang family streetcar-style, paying tribute to real American classics.

Together the Mustang Mach-E, F-150 Lightning and E-Transit give Ford a compelling electric presence across three key vehicle categories and get us closer to a carbon neutral future. And we are just getting started.

We are deep into the development of our second-generation EVs, including our future electric full-size pickup. Using learnings from our first-generation EVs, they are being designed with a ground-up, systems-based approach that will unlock incredible complexity reduction and energy efficiency. They will also be fully updatable leading to higher customer satisfaction and better quality.

### EXPANDING OUR BATTERY CAPACITY

Battery capacity and component sourcing is a key element of our EV strategy. We have added battery chemistries and secured contracts delivering 60 gigawatt hours (GWh) of annual battery capacity, 100% of the annual battery cell capacity needed, to deliver a targeted global 600,000 EV run rate by late 2023.

We are adding lithium iron phosphate (LFP) cell chemistry to our portfolio, alongside our existing nickel cobalt manganese (NCM) chemistry. This creates even more capacity for high-demand products and provides customers many years of operation with minimal range loss. It also reduces the reliance on critical minerals such as nickel and, at current costs, brings a 10% bill of material savings versus NCM batteries.

Ford will introduce models with LFP battery packs for the Mustang Mach-E models for North America starting in 2023 as well as F-150 Lightning trucks in early 2024. Ford’s EV architecture flexibility allows efficient incorporation of technology, delivering incremental capacity quickly to scale and meet customer demand.

We are leveraging our long-standing connection with our EV battery suppliers to meet our 2023 battery capacity target for Mustang Mach-E, E-Transit models and F-150 Lightning.

### Securing Battery Cell Capacity Requirements

We are building on agreements tied to our 600,000 run rate milestone and are taking them even further. We are working on securing our battery cell capacity requirements to support an annual global run rate of more than 2 million EVs by late 2026.

To support these plans and our joint ventures for battery production, Ford has plans to localize battery capacity and is direct-sourcing battery cell raw materials in countries including the U.S., Australia and Indonesia.

We are working with major mining collaborators to source most of the nickel needed through 2026 and beyond. We have also secured several key lithium contracts. Ford continues working to localize processing of key battery materials in North America. We are ensuring all of our battery materials work reflects and aligns with Ford’s responsible sourcing standards.

▶ [READ MORE IN THE HUMAN RIGHTS AND SUPPLY CHAIN MANAGEMENT SECTION ON P.74](#)

### Battery R&D

Ford Ion Park, our global battery center in southeast Michigan, is on target to open in 2023. Ford Ion Park will accelerate research and development of battery and battery cell technology. Here, state-of-the-art equipment will be used to pilot new manufacturing techniques that will help the company quickly test and scale battery cell designs with novel materials.

### EV and Battery Plants

We are also creating infrastructure in the U.S., Europe and the U.K. to support the EV revolution.

Together with our battery technology collaborators, we have announced \$17.6 billion in investments in electric vehicle and battery production in the United States since 2019. Included in that amount is a \$3.5 billion investment to build the country’s first automaker-backed LFP battery plant, offering customers a second battery technology within Ford’s EV lineup. The BlueOval Battery Park Michigan initially will employ 2,500 people when production of LFP batteries begins in 2026.

Construction is underway at our BlueOval City auto production complex in West Tennessee and BlueOval SK Battery Park in Kentucky. Together these plants represent an \$11.4 billion investment and will employ 11,000 people.

At the Rouge Electric Vehicle Center, we have invested a total of \$950 million and created 750 jobs. Ford’s investment in Michigan for F-150 Lightning alone now totals more than \$1 billion, with 1,700 recently created jobs spread among five Ford plants in the state including Van Dyke Electric Powertrain Center, where F-150 Lightning electric motors and electric transaxles are assembled, and Rawsonville Components Plant, where F-150 Lightning batteries are assembled.

▶ [READ MORE ABOUT OUR NEW BLUEOVAL PLANTS IN TENNESSEE AND KENTUCKY ON P.27](#)

▶ [READ MORE ABOUT HOW WE ARE EXPANDING GLOBAL EV CAPABILITIES ON P.29](#)

# 50%

OF FORD’S GLOBAL VEHICLES SALES VOLUME EXPECTED TO BE FULLY ELECTRIC BY 2030

# 100%

OF FORD’S PASSENGER VEHICLES IN EUROPE EXPECTED TO BE ALL-ELECTRIC BY 2030

**CASE STUDY:**

# Reimagining How EVs Are Built



## \$11.4B

INVESTMENT IN TWO CAMPUSES –  
BLUEOVAL CITY AND BLUEOVAL SK

## 11,000

PEOPLE EXPECTED TO BE  
EMPLOYED IN THE TWO CAMPUSES

A century after Ford built the groundbreaking Rouge plant, we are undergoing an expansion transformation as we usher in a new era of manufacturing. We are making a historic \$11 billion investment in two campuses – BlueOval City and BlueOval SK – that will lead our company and country into the future of electric vehicles.

In September 2022, we broke ground at BlueOval City in West Tennessee, the largest, most advanced auto production complex in our history, where we will assemble our next EV truck and advanced batteries to power future Ford and Lincoln electric vehicles. The vertically integrated mega complex spans six square miles and will employ approximately 6,000 people. It is on track to open in 2025.

Significant construction progress at BlueOval SK Battery Park in Kentucky brings Ford closer to its target of producing an annual run rate of 2 million EVs globally by the end of 2026. The twin battery plants are intended to supply Ford’s North American assembly plants with locally assembled batteries for powering future Ford and Lincoln EVs. BlueOval SK Battery Park, a joint venture with SK On, covers 1,500 acres and will create approximately 5,000 jobs.

**Environment**

The assembly plant at BlueOval City in Tennessee is designed to be carbon neutral and send zero waste to landfill once fully operational in 2025. The aspirational goal is to operate the site to meet or exceed local ecosystem performance.

Reducing emissions from our manufacturing operations will play a role in our efforts to achieve carbon neutrality and improve air quality. The painting operation at BlueOval City will be subject to the strictest performance-based emissions standards of any U.S. assembly plant. The emission limits applied are even more stringent than the U.S. EPA’s New Source Performance Standard for Auto and Truck Paint Shops that was proposed in May 2022. This means that the paint shop at the mega plant will exceed all requirements and have the lowest performance-based emission limits in the industry. BlueOval City paint operations will be controlled using emission concentrators and regenerative thermal oxidizers resulting in no uncontrolled exhausts from these operations during production.

Through an on-site wastewater treatment plant, our BlueOval City assembly plant is designed for the optimal use of treated wastewater for processes, and minimization of freshwater withdrawal as an important first step toward our aspiration to use freshwater only for human consumption in our manufacturing process.

In addition, Ford, and the University of Tennessee (UT) have entered into a stream mitigation and restoration agreement that will restore the stream waters flowing through the University’s Lone Oaks Farm. UT Extension is developing Lone Oaks, a 1,200-acre facility, into a world-class 4-H and STEM Education Center close to BlueOval City. Not only will the project restore and protect the streams and wetlands, but it will also create educational opportunities that will inspire and benefit future generations, and support Ford’s purpose of helping to build a better world.

**Health and Safety**

As construction at the BlueOval locations in Tennessee and Kentucky gets underway, our medical, industrial hygiene, toxicology and workers compensation defense teams are preparing for the launch by ensuring that training requirements, emergency response procedures, and health and safety requirements are discussed and understood.

**Workforce Development**

The skills and qualifications of the workforce are key to the success of a highly innovative and transformational project like BlueOval City. We recognize the importance of being an active participant in the workforce ecosystem to ensure individuals are aware of, and have access to, the exciting jobs within the EV revolution.

**CASE STUDY**

# Reimagining How EVs Are Built – continued

In partnership with Tennessee state and local leaders, we are developing education and training programs beginning with kindergarten and extending through college to engage educators, students, parents, veterans, minorities, disconnected adults, and those seeking a career change. BlueOval City will require advanced technical knowledge, as well as increased essential skills, including systems thinking, communication, listening, and problem-solving skills.

In Tennessee, the 120,000 square-foot Tennessee College of Advanced Technology (TCAT) at BlueOval City will be jointly occupied by the college, Ford, and BlueOval SK. The public-private partnership will create educational opportunities and serve as a community hub for the region, as well as the main location for onboarding 6,000 new Ford and BOSK employees. Designed in partnership with the State of Tennessee, the learning center will house classrooms, labs, an auditorium, technical training equipment, a veterans outreach center, and a career center. Continued partnerships with the University of Memphis and University of Tennessee Martin will also provide short-term training, teacher training, and the bulk of our higher education needs.

In Kentucky, BlueOval SK Battery Park will train 5,000 new workers at the new Elizabethtown Community and Technical College (ECTC) BlueOval SK Training Center. The curriculum within the 42,000 square-foot training facility will support battery knowledge, roles and skills. BlueOval SK will train employees in SK On's proprietary technical, quality and manufacturing processes in the ECTC BlueOval SK Training Center's virtual reality labs, industrial maintenance lab, work simulation lab and ergonomics techniques classrooms. The training center is scheduled to open in 2024.

**Diversity, Equity and Inclusion**

From talent recruitment and development to supplier diversity, Ford is embedding diversity, equity, and inclusion (DEI) into our BlueOval City plans. Ford, BlueOval SK and our suppliers who locate at BlueOval City want to make sure that the communities where we build benefit from the investments we are making and the jobs we are creating.

We are committed to a diverse, local workforce and supply chain. Ford is making it a priority to engage diverse businesses in the massive project including minority, women, veteran, LGBTQ+, and people with disability owned businesses. All orders at BlueOval City are competitively bid. To date, a large portion of purchase orders for BlueOval City have been placed to Certified Diverse companies.

**Community Engagement**

Our longstanding legacy of community support and engagement continues in West Tennessee and Central Kentucky. We are working hard to enrich and give back to the communities we are joining.

Ford is proud to invest \$1 million in West Tennessee, the home of our BlueOval City mega campus. Through Ford Fund's capital grants program, local nonprofits and municipalities can build capacity and infrastructure to better serve the community's needs for generations to come. The program builds upon the philanthropic support the company has already invested in West Tennessee, including the Lorraine Civil Rights Museum and National Urban League in Memphis. Ford Fund is also investing in new entrepreneurs with Heartland Forward.

In 2023, we will be awarding the capital grants announced in 2022 and launching additional community partnerships and programs in West Tennessee.

In Kentucky, Ford and our construction partners continue to engage with communities through donations, sponsorships, and volunteer efforts, building on Ford's 109-year commitment to the state. We provided nearly \$40,000 and manpower from our construction partners, Barton Malow Company, and Gray Construction, to the city of Glendale, home to BlueOval SK Battery Park. The team refreshed many of the city's parks and sidewalks, some of which had not been replaced in more than 100 years.

Ford's construction partners also installed handicap-accessible ramps throughout Glendale and supported various projects locally with United Way of Central Kentucky, Feeding America, and Habitat for Humanity throughout Central Kentucky. Ford donated \$42,000 to the Glendale Volunteer Fire Department, increasing the department's budget by more than 50%.



# 5,000

NEW WORKERS WILL BE TRAINED AT THE NEW ELIZABETHTOWN COMMUNITY AND TECHNICAL COLLEGE (ECTC) BLUEOVAL SK TRAINING CENTER

**THE POWER OF OUR EVS****Charging Network**

Our BlueOval Charge Network is the largest public charging network for EVs in North America<sup>11</sup>. The BlueOval Charge Network is composed of over 26,000 charging locations with over 84,000 plugs and continues to grow. Using the FordPass App or SYNC 4A navigation, drivers can see which charging stations are available, the cost to charge (many are free), and save their favorites.

In Europe, the BlueOval Charge Network provides customers with access to a network of over 450,000 plugs. Retail customers can find charging stations and pay for charging using FordPass or their BlueOval Charging Card. Larger fleets can access Ford Charge Assist via SYNC in both Europe and North America.

Ford continues to strengthen its EV charging experience in China. Through a single click on the Owner App, Ford Mustang Mach-E owners can access a network of 550,000 public charging plugs from more than 33 charging operators in China – including 350,000 fast-charging plugs and public charging sources across 350 cities.

Every new Ford all-electric vehicle comes with switchable home-charging options – each of which is easy and reliable. EV owners can use the Ford Mobile Charger with any 120V or 240V outlet for a reliable charge, or order an at-home Ford Connected Charge Station to maximize home charging with 48 amps of on-demand power. Customers can schedule and monitor their EV’s charging with the FordPass App.

For commercial vehicles, Ford Pro helps customers implement complete EV charging from start to finish with a turnkey solution. This offers a full-service team of experts with decades of experience in commercial project development and installations. Ford Pro Charging seamlessly integrates hardware and software solutions precisely designed to manage customers’ electric fleet charging requirements.

► [READ MORE IN THE CUSTOMER ENGAGEMENT, MARKETING AND SATISFACTION SECTION ON P.34](#)

**Bidirectional Charging**

The all-electric F-150 Lightning pickup is the first pickup in the U.S. that enhances energy independence for its owners. Thanks to bi-directional power technology, F-150 Lightning customers can use their trucks to power their homes when the grid goes dark and maintain their routines during brief or extended outages.

Ford’s Intelligent Backup Power works with a Home Integration System to automatically activate if the grid goes down. Once power is restored, the system automatically reverts to utility power. Based on an average U.S. home at 30 kilowatt-hours of use per day, the F-150 Lightning with extended-range battery provides full home power for up to three days, or as long as 10 days when rationing.

What’s more, the F-150 Lightning extended-range battery system delivers power cleanly and efficiently with greater capacity than many wall battery units. This helped a Florida customer who used his Ford-150 Lightning to make breakfast during a Hurricane Nicole power outage.

**Putting Power Back Into the Grid**

Ford is piloting vehicle to grid (V2G) technology with the F-150 Lightning. Building on the technology used for the F-150 Lightning’s Intelligent Backup Power, V2G will allow EV owners to transfer power back into the grid using Ford Mobile Chargers, the Ford Connected Charging Station or the Ford Charge Station Pro. The ability to sell power back into the grid will allow EV owners to monetize the power-storage attributes of their EVs. V2G pilots and projects are currently underway in two states.

MORE THAN

**26,000**

CHARGING LOCATIONS IN THE NORTH AMERICAN BLUEOVAL CHARGE NETWORK

“It starts with sitting down with our customers to learn their business and how they plan to use their electric vehicles. Regardless of the size of their business or the industry they are in, we’ll help them plan their charging infrastructure – whether it’s installing home chargers for employees or developing a large-scale depot system – to make the transition to electric seamless.”

MUFFI GHADIALI, GENERAL MANAGER, FORD PRO CHARGING



## Electric Vehicles, Batteries and Charging Infrastructure – continued

### EXPANDING GLOBAL ELECTRIC VEHICLE CAPABILITIES

Ford's journey to electric vehicles is global. Ford is all-in and moving fast to meet the demand for EVs in leading markets like the U.S., Europe and China, and around the globe.

Ford joined the RouteZero initiative in 2021, and has pledged to work toward 100% zero-emission cars and vans globally by 2040, and in leading markets no later than 2035. This pledge aligns with our goals of 50% of our global vehicle mix fully electric by 2030 and all new vehicles in Europe zero-emission by 2035.



#### Europe

Ford is making important strides toward an electric future in Europe, where world-class vehicles and relentless focus on customer experience go hand-in-hand with protecting our planet.

Ford's European strategy calls for an exciting lineup of EVs, including an electric version of the popular Ford Puma. We are extending our leadership in the commercial segment with electric Ford Pro vehicles including the E-Transit Custom with connected services beginning production in 2023.

By mid-2026, 100% of our passenger vehicle range in Europe are expected to be zero-emissions capable, all-electric or plug-in hybrid; moving to all-electric by 2030. Our commercial vehicle range in Europe is also expected to be 100% zero-emissions capable, all-electric or plug-in hybrid, by 2024; two-thirds of commercial vehicle sales are expected to be all-electric or plug-in hybrid by 2030; and all commercial vehicles are expected to be zero-emission by 2035.

Ford of Europe joined with 27 other companies in an appeal to the European Union (EU) to ensure all new cars and vans in Europe are zero-emission from 2035 and to establish mandatory targets for charging infrastructure. This includes enacting legislation that establishes standards and a clear timeline for the industry and suppliers to follow, to ensure the transition to EVs.



#### Germany

Ford also reiterated its commitment to Germany as the headquarters of its European Model e business and the site of its first domestic European EV production. After a \$2 billion plant conversion, the state-of-the-art Cologne Electrification Centre will start producing electric passenger cars in late 2023.



#### Romania

Continuing Ford's accelerated transformation of its business in Europe to achieve an all-electric future, Ford of Europe officially transferred ownership of its Craiova plant in Romania to Ford Otosan. By combining the Craiova plant's production power with Ford Otosan's extensive experience in commercial vehicle design, engineering, and manufacturing, the facility will play a key role in Ford's electric and commercial vehicle growth plans for Europe. All-electric versions of the Transit Courier, Tourneo Courier and Ford Puma will start production at the plant in 2024.



#### Spain

We have chosen our plant in Valencia, Spain, as the preferred site to assemble vehicles based on our next-generation EV architecture. Pending product approval, the Valencia plant could produce breakthrough electric and connected vehicles beginning later this decade. Bringing our all-new EV architecture to Valencia will help us build a profitable business in Europe, secure high value employment and increase Ford's offering of premium electric, high performance, fully connected vehicles that meet the demand of our European customers.



#### Turkey

Ford Pro shipped the first production units of its all-electric E-Transit van to customers across Europe from the Ford Otosan factory in Kocaeli, Turkey. Following strong early demand for E-Transit from European businesses – with over 5,000 customer orders received before the vehicles rolled off the assembly line – Ford Otosan has moved to full mass production. To meet demand for future electrified Ford models, Ford Otosan is investing €2 billion and creating around 3,000 new jobs to increase vehicle production capacity.

Ford's move to an electric future in Europe was also highlighted by the recent announcements to create one of the largest EV battery facilities in Turkey and the wider European region. Production is intended to start as early as mid-decade with an annual capacity likely to be in the range of 30 to 45 gigawatt hours.



#### United Kingdom

Ford has invested an additional £125 million in the Halewood Plant, increasing capacity by 70% and enabling Halewood's transformation to an EV component plant. Halewood is integral to Ford's European EV plan.

The investment increases annual production to approximately 420,000 units, powering Ford E-Transit Custom, E-Tourneo Custom, Transit Courier, Tourneo Courier, Puma and further future products. Halewood's electric power units will be in a targeted 70% of Ford EVs sold in Europe by 2026.

Ford's £24 million E:PRIME centre, at Ford's Dunton product development headquarters, is building prototypes of the electric power unit and training Halewood employees in its machining and assembly, assisted by the Advanced Propulsion Centre. The power unit, comprising eDrive motor and gearbox, replaces the engine and transmission of a conventional engine vehicle by propelling an EV using battery energy.

The latest investment – which includes government support from UK Export Finance, through their Export Development Guarantee – will help safeguard the 500 high-value Ford jobs at Halewood and upskill them for Ford's EV future.



#### China

In the fall of 2022, Ford announced the name of its dedicated EV division in China: Ford Model e Technology (FMeT). Designed around a customer-centric structure, with digital excellence built-in as a core competitive advantage throughout the organization, FMeT aims to attract and retain the best talents in battery, driver assist technology, software, and digital experience.

To stay ahead in the latest technological developments, FMeT is set up with key internal competencies to secure long-term success. Initial areas of focus include Electric Propulsion Engineering, Digital Experience and Driver Assist Technology.

# ICE and Hybrid Advancements

In addition to EVs, a full range of fuel efficient internal combustion, plug-in hybrid and traditional hybrid engine vehicles give our customers lower emissions options as we build the path toward carbon neutral transportation.

### ADVANCES IN ENGINE AND TRANSMISSION TECHNOLOGIES

Our business is centered on a product-led portfolio –and that portfolio is continuously improving.

As we expand our EVs, we are ensuring that our internal combustion engine (ICE) powertrains continue to improve fuel economy while meeting increasingly stringent emissions criteria.

Our proven EcoBoost engines are deployed across nearly 100% of the portfolio, and combine engine downsizing, turbocharging, direct fuel injection, and twin-independent variable cam timing to improve fuel economy. We offer efficient hybrid and plug-in hybrid vehicles including the Maverick hybrid truck. Maverick was the number one small truck in America in 2022.

In Europe, the Kuga is the best-selling plug-in hybrid electric vehicle (PHEV) for the second year in a row.

### Diesel Engines

Modern diesel engines can offer reduced carbon dioxide and nitrogen oxide emissions and fuel consumption compared to their predecessors. Thanks to advanced diesel engine technology, they can achieve 20–30% better fuel economy than comparable gasoline engines in specific markets and segments, such as light commercial vehicles and heavy-duty vehicles.

As we move toward electric vehicles, we continue to optimize these benefits in our EcoBlue and Power Stroke offerings to improve fuel economy and reduce emissions.

### Advanced Transmissions and Drivelines

We continue to optimize our transmissions to improve fuel economy and emissions. Highly efficient seven-, eight-, and ten-speed planetary transmissions have been widely deployed across our vehicles and the volume of hybrid electrified transmissions continues to increase. Our transmission team has shifted focus to design and develop innovative technologies and features for electrified vehicles.

“For decades, the Ford F-150 has been America’s workhorse, and it’s never been in better shape. It’s more innovative, more appealing to drive and more versatile than ever before. Nobody understands the needs of the modern truck buyer better than Ford and nobody builds a better truck.”

ALISTAIR WEAVER, EDMUNDS EDITOR-IN-CHIEF



### AWARDS AND RECOGNITION

Ford ICE vehicles received a shelf of awards and honors in 2022, including the following:



**Ford F-150**  
Edmunds Top Rated Truck (third consecutive year)



**Ford Ranger**  
J.D. Power 2022 U.S. Initial Quality Study  
Highest in Initial Quality among Midsize Pickups



**Ford Bronco**  
2023 Car and Driver 10 Best Trucks and SUVs (second consecutive year)  
2022 North American™ SUV of the Year



**Ford Maverick**  
2023 Car and Driver 10 Best Trucks and SUVs  
2022 North American™ Truck of the Year



**Ford F-250 Super Duty**  
J.D. Power 2022 U.S. APEAL Study  
#1 Driver Appeal among Large Heavy-Duty Pickups



**Lincoln Nautilus**  
J.D. Power 2022 U.S. Initial Quality Study  
Highest in Initial Quality among Midsize Premium SUVs



**Ford Bronco Sport**  
J.D. Power 2022 U.S. APEAL Study  
#1 Driver Appeal among Small SUVs

KBB Best Buy Awards – 2022 Best New Model and Best Compact Pickup  
TFLTruck – 2022 Best Truck of the Year  
Detroit Free Press – 2022 Truck of the Year  
The Detroit News – 2022 Vehicle of the Year (Maverick Tremor)

Motor1 – 2022 Best Value

# Connected Vehicles, Mobility Services and AI



**Access:** Drive human progress by providing mobility and accessibility for all

Since 1903, when Ford first put the world on wheels, we have been dedicated to mobility – and the freedom it brings. That commitment continues today as we leverage cutting-edge technology and a legacy of experience to make movement more accessible and more connected.

## CONNECTIVITY

Software is one of the most defining changes for the auto industry. New IT and innovative solutions are making Ford vehicles even smarter and more connected. We are proud of our always-on relationships with our customers and continue to deliver ever-improving experiences through software-defined vehicles.

### Power-Up Software is Transforming the Customer Experience

Ford Power-Up over-the-air (OTA) software updates are transforming the ownership experience by regularly adding new software features and other improvements that keep making Ford vehicles better over time. Customers can pre-schedule software updates at convenient times – making life easier for owners with busy schedules. We have delivered more than 5 million OTA updates and expect to scale to 30 million OTA-capable vehicles by 2028.

Ford China has made OTA updates available to the majority of its vehicle range released from 2021 onwards including both ICE and EV vehicles. In 2022, more than 350,000 OTA updates on both Ford and Lincoln products were completed in China. Four OTA upgrades were launched for Ford Mustang Mach-E in China, covering 73 experience optimizations such as upgrades for assisted driving maps and diverse driving scenarios.

Power-Up software updates also transform connected vehicle learnings into continuous quality improvements as they speed the detection and resolution of quality issues, which will help increase customer satisfaction and lower warranty costs.

Alexa Built-in now offers enhanced Car Control, which allows vehicle occupants to teach Alexa their preferred voice commands, such as, “Alexa, my windshield is foggy” to turn on the defroster. This feature, which leverages Alexa’s teachable AI technology, adds to what is planned to be the auto industry’s broadest rollout of the Alexa Built-in hands-free experience, with Ford and Lincoln uniquely offering complimentary access to key Alexa features for up to three years.



This rollout began with the 2022 F-150, Bronco, Mustang Mach-E, Edge, newly launched Expedition, Nautilus and newly launched Navigator – soon expanding to the 2022 F-150 Lightning. Vehicles with Alexa Built-in will automatically include enhanced Car Control functionality when available.

### Ford, Google Technology Powerhouse

In 2021, Ford and Google announced a unique strategic partnership to accelerate Ford’s connected vehicle experience. Ford named Google Cloud its preferred cloud provider to leverage Google’s expertise in data, artificial intelligence (AI), and machine learning as part of a new, six-year partnership.

Beginning in 2023, Ford will begin launching an all-new vehicle infotainment system it is building on the Android Operating System. Over time, this all-new Android-based infotainment system will be featured in millions of Ford and Lincoln vehicles at all price points. The system will feature Google Voice, Maps and Play Store.

Continuing to improve the user experience our customers enjoy in their vehicles is a key priority tied to the Company’s Ford+ plan to deliver must-have vehicles and services across its lineup.

### A SHIFT IN AUTONOMOUS STRATEGY

As we adapt to changing circumstances, Ford has concluded that the auto industry’s large-scale profitable commercialization of fully autonomous vehicles, known as Level 4 automated driving systems (ADS), will be further out than originally anticipated. Focusing on Level 2+ and Level 3 advanced driver assistance systems (ADAS) will let us deliver for our customers in the shorter term and continue building expertise for the long term.

Consequently, we have made a strategic decision to shift our capital spending from Level 4 ADS developed by Argo AI to internally developed Level 2+ and Level 3 ADAS technology which uses driver assistance systems and artificial intelligence to provide partial, or conditional, driving automation.

# 5M

OTA-CAPABLE VEHICLES DELIVERED

# 30M

OTA-CAPABLE VEHICLES EXPECTED TO BE DELIVERED BY 2028

**1,168**  
AUTONOMOUS DELIVERIES  
COMPLETED



Many of the employees received an opportunity to continue work on automated driving technology with either Ford or Volkswagen and others were offered a severance package that included insurance.

Development and customer enthusiasm for the benefits of Level 2+ and Level 3 ADAS warrant dialing up the company’s near-term aspirations and commitment in those areas.

While we refocus our self-driving capital spending from the Level 4 systems, we will strive to educate safety advocates and the media on our responsible ADAS approach with our increasingly automated L2+ and L3. We will continue to work on building toward a future L3 vision of giving customers back what they value most – their time.

Ultimately, the challenge will be refocusing our efforts and allowing ourselves more time to develop great and differentiated L2+ and L3 applications that at the same time make transportation even safer.

As for the future of true Level 4 autonomy, the muscles we have built with our new talent in broadly deploying a transformative BlueCruise Level 3 system will ultimately be essential to the future of accessible driverless vehicles in everyday life.

Our priority is not to compete in the race for the first autonomous car on the road. Our goal is to make the first Ford self-driving service accessible to everyone and truly enhance customers’ lives.

**OPERATIONAL LEARNINGS**

In 2022, collaborations with Argo AI and other partners helped us gain knowledge and expertise in autonomous goods delivery and ride-hailing services.

Ford and Argo AI worked together to launch an autonomous delivery program with a major grocery store chain in the U.S. The pilot program used Ford self-driving test vehicles equipped with the Argo AI Self-Driving system to deliver same-day goods and groceries to customers in Miami and Austin, TX. Through this partnership Ford was able to refine the user experience, optimize autonomous vehicle fleets, and improve logistics. In the two key cities, Ford and Argo AI made 1,168 deliveries – 791 in Miami and 377 in Austin.

Ford also worked closely with a ride-hailing service in an industry-first collaboration to commercialize autonomous ride-hailing at scale. In 2022, 1,942 rides were given through this collaboration.

While these pilot programs are no longer active, they have provided us with key data and input on our self-driving future, helping us visualize how we can eventually scale commercial operations in this space.

**ENGAGING COMMUNITIES WITH MOBILITY SOLUTIONS**

Through the City:One program, Ford is bringing community-led mobility solutions to areas including Miami-Dade County, Greater Memphis and Detroit. In Miami-Dade County, Ford and the City:One team collaborated with local residents to help integrate them into the deployment and scaling of new mobility solutions.

Our work with the Greater Memphis area will engage local entrepreneurs in pilot projects designed to increase access to sustainable, electrified mobility options and connect urban and rural communities through mobility in the region.

And in Detroit, Ford and City:One are working on a project focused on educating drivers on how autonomous driving systems can support them. Over the last year, City:One hosted a series of community events, surveys and focus groups to better understand what role ADAS systems play in two specific neighborhoods in the City of Detroit.

Programs like these help residents understand and engage with new mobility solutions such as mobility robots.

**NEXT ACCESSIBILITY**

As we work to develop products and services that are accessible to all, we have created a team within Ford Next that focuses solely on accessibility. The Ford Next Accessibility team is working on a host of projects that will create more accessible and equitable mobility solutions in the future. In 2022, the team completed an AV Fresh Food delivery shuttle pilot, a collaboration between Ford Fund and Gleaners Community Food Bank, delivering thousands of pounds of food to residents of the Rio Vista Co-Op Apartments in Detroit.

## Connected Vehicles, Mobility Services and AI – continued

In 2023, we plan to grow Ford Next LLC as a business incubator – concentrating on business models tied to mobility, electric vehicles, vehicle safety and security, next-gen vehicle accessories and the future of goods movement.

### **IMPROVING ACCESS FOR EVERYONE**

The Ford Accessibility Program offers a variety of human-centered accessible tech and features in our base vehicles. It also offers, to those that need it, access to full conversions in order to adapt vehicles to their needs and make it easier for people with disabilities to get into the driver’s seat.

To help inform Ford’s accessibility strategy and to elevate the voice of our customers, we convened an expert panel of individuals in the accessibility field. Panel members had distinct knowledge on inclusive design, policy, lived experiences, health and outreach.

Our Employee Resource Groups (ERGs) are impacting our accessibility strategy as well. Employee Emily Obert’s work as co-chair of the Ford Empowering Diverse Abilities (FEDA) ERG led to the creation of her position as Next Accessibility Lead. In this new-to-Ford role, Emily works to remove any obstacles that may limit our customers’ ability to fully utilize our vehicles as she designs products with all customers top of mind. Sitting at the intersection where software meets hardware meets the customers, Emily’s work helps to deliver Ford+ every day.

Ford has developed intellectual property on more than 15 new innovations in 2022 alone. Innovations such as novel grab bars for ingress and egress and customizable vehicle sound for our customers with diverse hearing needs will allow our customers to have more choices in the private transport space.

### **Empowering Customers**

We want all our customers to have access to the electric vehicle revolution. However, drivers with disabilities face specific challenges. For example, ease of charging is a key purchase consideration for EVs<sup>2</sup>. In response, Ford has developed a prototype robot charging station that drivers operate via their smartphone from inside their EV. The technology could enable the driver to stay in the vehicle while charging, or to leave the vehicle while the robot does all the work.

Ford is testing the robot charging station as part of a research project to develop hands-free charging solutions for EVs and fully automatic charging for autonomous vehicles.

In the future, the robot charging station, custom-made by Dortmund University Department of Machine Elements, in Germany, could be installed at accessible parking spaces, in car parks or at private homes. Further applications could include fast and efficient charging of company fleets. The technology could also support more powerful charging to charge vehicles in a much shorter time and eventually even become fully automated.

And, when it comes to charging mobility assistive devices, the F-150 Lightning delivers the power customers need with four 120V outlets and two USB outlets. The 2023 F-150 Lightning will launch with seven accessible and inclusive features as well as links to adaptive equipment to help with solutions. Our goal is to empower those with disabilities to have choices and help give them agency to select the right product for them.

As a member of the Autonomous Vehicle Alliance (AVA), Ford sponsors AVA’s research on accessible and barrier-free autonomous vehicles. We actively participate in and help facilitate informative webinar sessions organized by the AVA, and other partner organizations. In 2023, Ford will co-host an Accessible Mobility Summit along with other members of the AVA.

**“People need mobility solutions that fit seamlessly into their lives and empower them to pursue their dreams. When we develop products that meet the needs of our customers with disabilities, they can be out in the world – just like everybody else.”**

**EMILY OBERT, EXPERIENCE DESIGN DIRECTOR, PRODUCT EQUITY, INCLUSION, AND ACCESSIBILITY**



# 15

**NEW ACCESSIBILITY INNOVATIONS IN 2022**

# Customer Engagement, Marketing and Satisfaction

**Our relationship with our customers is at the core of our company. When we say we treat customers like family, we mean it – and we live up to that high standard.**

Together with our dealers, we are creating a better purchase and ownership experience for our customers to help build life-long trust and satisfaction.

We are meeting our customers where they are with fast, personalized and trusted experiences with our software-centered vehicles that continue long after a customer leaves the dealership with their new vehicle.

**DIFFERENTIATING THROUGH CUSTOMER EXPERIENCE**

We are scaling remote services and seamless scheduling to help meet and exceed the expectations of our customers regardless of whether they are driving an EV or an ICE vehicle. All Ford service customers can receive complimentary Pickup & Delivery and Mobile Service at the location of their choice, providing convenience and reducing disruption to their daily lives.

In 2022, we delivered over 450,000 Pickup & Delivery experiences globally. With more than a thousand Mobile Service vans on the road, we delivered over 300,000 Mobile Service experiences globally. In 2022, over 1.5 million service appointments were made online worldwide.

► [READ MORE ABOUT MOBILE SERVICE IN THE FORD PRO SECTION ON P.37](#)

**Loyalty and Membership Rewards**

Our FordPass Rewards loyalty program lets U.S. customers unlock greater value and enhanced experiences, while staying connected across the entire ownership journey. We have added over 2 million new members, taking us to over 11 million total lifetime members. Modem activation continues to grow in all markets since the launch of the FordPass app. New Zealand, Australia, South Africa, Thailand, Vietnam and the Philippines have joined the list of countries offering FordPass.

**Measuring our Effectiveness**

As customers engage with the company in our dealerships, on our digital properties, at our contact centers, and inside our vehicles, they are invited to provide their sentiment on both touchpoint satisfaction, and their likelihood to advocate for our brand. Our internal customer experience measurement platform also provides actionable insights to our dealers and touchpoint owners to drive enhanced experiences.

Since our new customer experience measurement platform launched in North America in January 2022, we have seen a lift in sentiment metrics for customers using Mobile Service and Pickup & Delivery remote services as compared to the traditional service customer. The platform will expand to Europe, the International Markets Group, and South Africa in 2023.

**Focus on Retention and Proactive action**

We have begun the transformation of our global call centers as we aim to minimize disruption and down time for customers. By empowering agents with information and support resources, we are providing customers with better experiences. In 2023, we are expanding the proactive focus globally to anticipate customer needs through Connected Vehicle Alerts, Shop/Buy Reservations and Roadside Assistance. Our Ford Pro 100% uptime promise and proactive support for Model e customers is a priority in 2023.

**All-new EV Program for Dealers**

We have openly committed to the dealer franchise model and we are challenging ourselves and our dealers to create a model that will compete with the startups and the established OEMs. Customers now expect transparent and radically simple retail experiences. That’s why we are developing an exceptional dealer-led service to meet customers where they are – on their schedules, their terms, online or in the dealership. This will drive customer loyalty and pave our path to success.

Starting in 2024, we are requiring our dealers to select an area of focus. Some will invest in EVs and become Model e dealers. Others will specialize with Ford Blue or Ford Pro. Some dealerships will go “all-in” across Ford Blue, Ford Pro and Ford Model e.

That’s why we developed the voluntary Model e EV Program for our dealers after an extensive listening tour of nearly 400 dealers.

The new program has five key tenets:

- Dealer EV education
- Public charging at dealerships
- Transparent, non-negotiable pricing set by the dealer
- Physical experiences such as remote Pickup & Delivery
- Digital experiences as new features become available



**450k**

PICKUP & DELIVERY EXPERIENCES DELIVERED GLOBALLY

**300k**

MOBILE SERVICE EXPERIENCES DELIVERED GLOBALLY

# 99%

OF COMMERCIAL  
VEHICLES CENTERS IN  
U.S. ARE EV CERTIFIED

# 1,500

CERTIFIED EV DEALERS  
IN EUROPE

We are leveraging technology to increase efficiency in our service department and decrease down time for customers.

Nearly two-thirds of Ford's dealer network enrolled in the voluntary program in 2022 for a January 2024 start. As a group, these 1,920 dealers offer customers a robust network of dealers who have agreed to take reasonable steps to better serve our existing and future EV customers.

Together with our Model e dealers, Ford will offer an unmatched shopping, buying and ownership experience.

As EV adoption moves from early adopters to the mainstream, more customers are seeking an in-person experience to learn about EVs and their benefits. The Model e EV Program offers customers the convenience of transacting online directly with their dealership and the in-person support of their dealer – our secret weapon in helping more people learn about EVs and make the switch with the knowledge of a nationwide dealer network supporting them.

In China, Ford has introduced Ford Select, a collection of the brand's most iconic electrified products such as Mustang Mach-E, with a new direct-to-customer model that distributes EVs directly to customers through more than 103 city stores and test drive centers across China. With Ford Select, Ford is determined to offer the best experience to EV customers across every touchpoint of the customer journey, from product exploration to post-purchase.

#### Dealer Training

Ford Guest Experience is an integrated approach to dealer training, store culture, and reward and recognition that elevates service and experiences to make our customers feel like family. In North America in 2022, we brought nearly 340 dealers and their key employees through the Ford Guest Experience Immersion training with a focus on driving dealer adoption and implementation of priority experiences.

Topics included Guest Centricity and Diversity, Equity and Inclusion as well as Ownership Experiences including FordPass Rewards, Service Reservations, Pickup & Delivery and Mobile Service. Dealers develop an action plan which they take back to their stores and begin to implement. Ford also provides personalized coaches to select stores across the U.S. to help them implement their action plans and measure their progress. In 2023, Ford Guest Experience will expand this program to encompass talent management.

With 99% of Commercial Vehicle Centers in the U.S. EV-certified, Ford Pro is ready for the electric era. In Europe, 1,500 EV-certified dealers and over 4,500 Authorized Repairers all have E-Transit Custom scheduled service capability.

#### Connected Vehicle Data Helps Lower Ownership Cost and Incentivize Safer Driving

Ford continues to grow the number of data aggregators and insurance carriers using connected vehicle data, to support User Based Insurance (UBI) programs. UBI programs using embedded connected vehicle systems, with the consent of the customer, provide more accurate and reliable driving data, empowering insurers to reward safe driver behavior with opportunities for reduced personalized premiums. Ford continues to evolve and grow its data sets to support enhanced carrier underwriting.

#### Augmented Reality Comes to the Service Department

We are leveraging technology to increase efficiency in our service department and decrease down time for customers. Ford dealerships across the country now have access to state-of-the-art remote viewing technology allowing them to receive real-time assistance for customer repairs from the Technical Support Team in Dearborn.

The two-way, hands-free electronic headset allows for both visual and audio communication between the dealership technicians and the Technical Support Team. Remote assistance software allows the team to see what the dealership tech is seeing while they work on the vehicle in real time. The headset's augmented reality capability allows the Technical Support Team to display modified or enhanced images on the headset for the dealer technicians to view.

#### Enhancing the Used Vehicle Marketplace

Ford has enhanced its used-vehicle digital marketplace, offering buyers increased peace of mind and ensuring Ford dealers remain leaders in the used-vehicle space. Ford Blue Advantage, powered by Autotrader, lets customers search a wide selection of Ford and non-Ford products to find their ideal vehicle through a personalized shopping experience that includes a search-by-vehicle option and preference for home delivery, at-home test drive and video walkaround.

**INFLATION REDUCTION ACT INCENTIVES**

We expect the U.S. Inflation Reduction Act to have a positive impact for our customers.

Commercial customers can claim up to \$7,500 per EV, and we estimate that most of our commercial customers will be able to monetize this tax credit. There are charging benefits as well. Businesses that purchase and install EV charging equipment may be eligible for credits up to 30% of the cost of the equipment, depending on their situation.

Qualifying government entities including states, counties, and cities may also take advantage of the commercial clean vehicles tax credit because the Inflation Reduction Act creates a way for such tax-exempt entities to get a monetary benefit.

For our retail customers, the Inflation Reduction Act authorizes tax credits up to \$7,500 for the purchase of an EV or PHEV. The U.S. government is phasing in the eligibility criteria for this tax credit, which include criteria regarding where the vehicle is assembled, the income of the purchaser, the retail price of the vehicle, and the source of the critical minerals and components to make the vehicle's battery. Ford will continue to communicate with our customers about these criteria, and help them understand whether they can benefit from this clean vehicle tax credit.

We also anticipate that the EU Green Deal will have a positive impact for our customers and the green electrification of mobility in the affected regions. We expect European mandates for more EV charging infrastructure will support European customers in migrating to fully electric vehicles.

All Ford Blue Advantage vehicles are inspected by a factory-trained technician and backed by Ford Motor Company warranties under two different levels – Gold Certified or Blue Certified; a 14-day/1,000-mile money-back guarantee applies to both levels.

The new platform meets customer demand for a seamless shopping and purchase experience by providing dealers' best and widest selection of used Ford and non-Ford vehicles. It has proven successful – internal data show that since the inception of FordBlueAdvantage.com, traffic to the site is up 500% over the prior Certified Pre-Owned site, while Ford certified used vehicle sales rose by 26% in 2021 and 17% in 2022.

**RESPONSIBLE MARKETING**

Our commitment to representing the diversity and perspective of our customer base extends beyond who we show in our advertising to the creative professionals we work with to develop and produce our multi-channel content.

Not only are we committed to working with content creators from underrepresented groups, but we also strive to offer training and mentorship through the marketing process.

Producing our marketing assets sustainably is important to us as we continue to grow best practices from our EVs all the way through to how we create social content.

We work to assure that our marketing, product offerings, and services meet the needs of our diverse current and future customers as they pursue their dreams. And we always assure that all of our marketing work is routinely monitored and reviewed for legality and compliance.



**Our commitment to representing the diversity and perspective of our customer base extends beyond who we show in our advertising to the creative professionals we work with to develop and produce our multichannel content.**



## CASE STUDY:

## Ford Pro



“At Ford Pro, we know the transition to electric vehicles can come with uncertainties. That’s why we’re focused on working with our commercial customers to help them quickly realize the benefits of combining electric vehicles with charging solutions and data insights to help achieve their sustainability goals, improve how energy is managed, accelerate their productivity and improve bottom lines. For customers already making the transition to electric vehicles, we are working to make sure they are charged and ready to work every day while optimizing energy costs and battery life.”

TED CANNIS, CEO FORD PRO

Ford Pro is dedicated to accelerating productivity and sustainability for commercial and government customers around the world. Ford Pro makes the complex transition to electric easy – providing ICE and electric vehicles seamlessly paired with an ecosystem of intelligent Telematics tools, charge management software, hardware, services and customer support that enables mixed fleets to operate without disruption.

Ford Pro integrates a suite of software, charging, service and financing solutions with gas, diesel, hybrid, and electric vehicles – making it easy for businesses and municipalities of all sizes to get their work done, and transition to sustainable solutions along the way. Commercial customers turn over 10-15% of their vehicles per year on average, meaning the transition from gas to electric will take time. Ford Pro is addressing the need for integrated solutions across both ICE and EVs, as both will be critical to fleet operation efficiency.

#### Charging

Ford Pro offers a one-stop-shop commercial charging solution, providing customers with both software and hardware infrastructure to support charging and energy management as well as consultation on depot site design, installation, operations, maintenance, and support.

In 2022, Ford Pro launched an all-new suite of six scalable Level 2 AC and Level 3 DC fast chargers ranging from 11.5 kilowatts to 180 kilowatts for commercial home and depot charging to offer a charger solution for commercial customers of all sizes and budgets.

We offer a wide portfolio of AC and DC fast chargers, with turnkey services from design to deployment, including charging management software and vehicle telematics.

Ford Pro has moved quickly to become a certified vendor for 47 utility incentive programs. We expect the depot charging industry to grow to nearly 900,000 full-size trucks and vans in the U.S. by 2030.

#### Software

The real game changer for the Ford Pro business is software centered on productivity, telematics, security and predictive failure of all components. Total Ford Pro active software subscriptions grew 74% year-over-year in 2022. Our suite of Ford Pro software solutions keeps getting stronger, as we launch new offerings.

Ford Pro E-Telematics is a software subscription service on the Ford Pro Intelligence platform that offers energy monitoring and vehicle charge management, available through easy-to-use app and web-based interfaces. E-Telematics is designed to help businesses make a seamless transition to EVs. Fleet operators can monitor the performance of individual trucks or vans, manage energy usage and gain key insights into their performance. Using EV-specific data such as kWh consumption, charge speed, distance to empty and more, managers can better understand how they are operating in real-time in order to help optimize running costs and uptime.

## CASE STUDY:

# Ford Pro – continued



## CUSTOMER SURVEY RESULTS

Established vehicle manufacturers are the top providers fleets will look to for turnkey solutions to aid in their electric transition

[ESCALENT, 2021 FLEET ELECTRIFICATION BRAND LANDSCAPE \(APRIL 2021\)](#)

Clean energy being good for our customers' brands is seen as one of the primary benefits of BEV adoption

[PSB, PERCEPTIONS OF ELECTRIC VEHICLES STUDY \(MARCH 2022\)](#)

Ford Pro Telematics also offers customers Fuel Efficiency Analysis to monitor and reduce fuel consumption, idling time and emissions for gas powered vehicles during the transition to EVs. Ford Pro offers E-Telematics available at no extra cost for the first three years of all-electric Ford fleet vehicle ownership to simplify the transition to electric vehicles.

In 2022, Ford Pro Launched VIIZR, a technology built on Salesforce; a custom solution for small trades that helps tradespeople schedule field appointments, send invoices, and manage customer relationships from one integrated, cloud-based platform.

We also introduced the Ford Pro Fleet Management Suite; specifically intended for small and mid-sized fleets, our software digitizes tasks such as driver assignments, inventory, recalls, fuel receipts, maintenance schedules and inspections.

### Service

Downtime can keep fleet managers up at night; it is the third-highest cost to fleets after fuel and depreciation. Ford Pro Service is a critical element of the Ford Pro ecosystem, delivering maximum uptime by linking connected vehicle data and an unparalleled dealer network to help keep customers moving.

Mobile Service is our new customer-focused offering that allows a customer to have maintenance performed at their location of choice and on their terms – significantly reducing their downtime. For commercial customers, the Mobile Service comes to their jobsite or facility, allowing them to take care of maintenance and repairs while increasing productivity.

Mobile Service vans can deliver 70% of service and repair work – including for other brands' vehicles – maximizing convenience and productivity, and removing the downtime and cost of taking fleet vehicles to workshops.

In North America and Europe, we had over 1,000 Mobile Service vans deployed at the end of 2022, and we plan to accelerate the expansion of the fleet throughout 2023 and beyond. The mobile service vans provide additional service capacity for our dealer network to support customer uptime.

When customers do have to come into the dealership, we have created special options for their needs. We have 650 Commercial Vehicle Centers in the U.S. and the European support network includes 800 Transit Centre workshops – the largest dedicated commercial vehicle network of any brand.

We are transforming how commercial customers are served, combining vehicle data, our footprint and our service offerings to lower the total cost of ownership, increase uptime and provide an overall better customer experience.

Ford Pro operates three FORDLive command centers in the EU. In 2022, FORDLive centers covered 19 EU markets with over 90 trained FORDLive agents supporting our uptime goals. In 2022, remote diagnostics secured our customers an extra 301,000 days of uptime, worth more than \$150 million.

### Sustainability

Ford Pro is helping companies and governments around the world accelerate their sustainability commitments. In 2022, over 130 municipalities and government agencies and over 140 commercial customers added an E-Transit or F-150 Lightning to their fleet. After its first full year in the market, E-Transit is used by workers in more vocations than any other battery-powered van in the U.S.<sup>13</sup>

For example, FedEx Office is piloting the E-Transit for SameDay City service. "FedEx SameDay City is a perfect use-case for testing the capabilities of the Ford E-Transit," said Brian Philips, FedEx Office President and CEO. "With the vehicle's range and the availability of charging infrastructure, we are excited to see how this vehicle performs in our operation and helps us understand the path forward to scale an electrification strategy for FedEx Office."

And the City of New York announced the procurement of 214 Ford Mustang Mach-E SUVs, mostly for law enforcement roles.

### Financing

FinSimple is helping businesses join the EV revolution with simplified financing options on electric vehicles, project infrastructure, charging hardware and more. In 2022, Ford Pro rolled out municipal loan options for charging solutions including installation, hardware and software for government customers.



# The Road to a Healthier Planet

Environment

# Overview

Everyone should experience the benefits of clean air, clean water and clean transportation. As a leader in the electric vehicle revolution, Ford is resolved to preserve or create the conditions our planet needs to thrive. This past year, alongside our partners across the globe, we have made measurable gains against tough environmental sustainability targets. Our investments in greener manufacturing are fueling the transition to carbon neutrality and achieving the positive impact that is essential to our future.



### We are accelerating our progress to carbon neutrality

Backed by science-based targets, our goal to carbon neutrality no later than 2050 encompasses our vehicles, facilities, and suppliers.

### We are on the path to an electric world

Around the world, we are dedicating more than \$50 billion from 2022 through 2026 to accelerate our zero-emission vehicle plan and create an ultra-efficient manufacturing system for our vehicles and the batteries that power them. We are on track to reach our targeted annual run rate of 600,000 EVs by late 2023 and more than 2 million by the end of 2026. By 2030, we expect half of our global vehicle sales volume will be electric.

### We are committed to environmental leadership

From water to energy and source materials, our commitment to environmental leadership and sustainability focuses on what we build and how we build. Using energy more efficiently, procuring power from carbon-free sources, reducing greenhouse gas (GHG) emissions from our operations, and making our transportation and logistics more sustainable all play a role in reaching carbon neutrality.

### Sustainable Development Goals

We are contributing to the following UN Sustainable Development Goals (SDGs) through actions outlined in this chapter:



## OUR SUSTAINABILITY ASPIRATIONS



**Climate Change:** Achieve carbon neutrality no later than 2050



**Energy:** Use 100 percent carbon-free electricity in all manufacturing by 2035



**Air:** Attain zero emissions from our vehicles and facilities



**Materials:** Utilize only recycled or renewable content in vehicle plastics



**Water:** Make zero water withdrawals for manufacturing processes  
Use freshwater only for human consumption



**Waste:** Reach true zero waste to landfill across our operations  
Eliminate single-use plastics from our operations by 2030

# Climate Change and Carbon Neutrality



**Climate Change:** Achieve carbon neutrality no later than 2050

**We believe that climate change is among the biggest challenges of our generation.**

► [READ MORE ABOUT OUR PROGRESS ON THIS SALIENT HUMAN RIGHTS ISSUE IN OUR HUMAN RIGHTS PROGRESS REPORT](#)

## ACHIEVING CARBON NEUTRALITY

We are doing our part by taking urgent action to achieve carbon neutrality no later than 2050 – and in Europe no later than 2035 – by focusing on three areas that account for approximately 95% of our carbon emissions: our vehicles, operations and supply chain.

On our way to carbon neutrality, we will reduce Scope 1, 2 and 3 emissions, as defined by the [GHG Protocol](#). The path will not be linear, and the relative share of GHG emissions for each scope will shift over time. The Carbon Neutrality Scenario graph shows what this path might look like. As we sell more EVs, the total GHG emissions from vehicle use should decrease significantly. The tailpipe GHG emissions from vehicle use decrease as ICE vehicle sales decrease, but the GHG emissions from energy production increase due to more electricity use. If we still have some remaining

hard-to-reduce GHG emissions at 2050, we intend to neutralize these emissions using carbon removals, aligned with guidance from SBTi. Carbon removals can be natural or technical strategies that remove CO<sub>2</sub> from the atmosphere and provide secure long-term storage.

## Our Commitments

Our goals are backed by science-based targets approved by SBTi:

- Reduce Scope 1 and 2 GHG emissions from our operations by 76% by 2035 from a 2017 baseline
- Reduce Scope 3 GHG emissions from the use of sold products by 50% per vehicle km by 2035 from a 2019 baseline

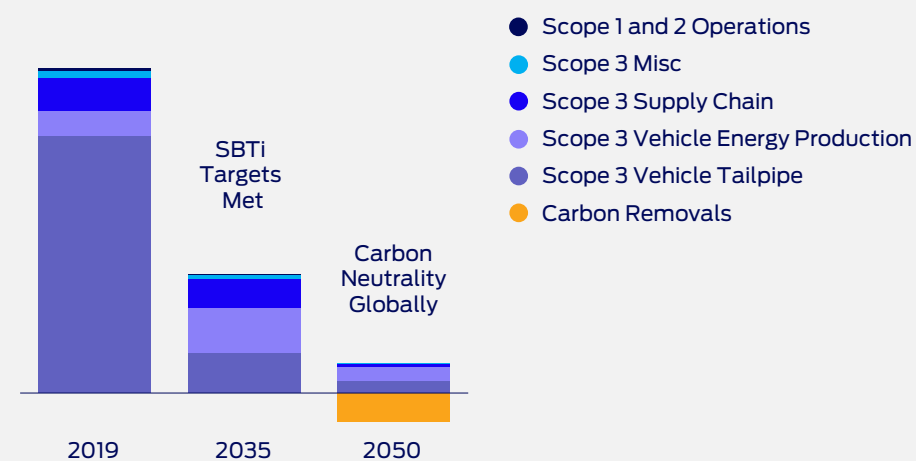
Our Scope 1 and 2 operations target is aligned with the SBTi 1.5°C path, while our Scope 3 use of sold products (vehicles) target is consistent with the well-below 2°C path<sup>14</sup>. These targets do not include offsets and are strictly GHG reduction targets. Our Scope 3 target goes beyond tailpipe emissions, and includes reducing vehicle emissions from a fuel-cycle perspective (well-to-wheels) which includes the production and consumption of energy during vehicle use.

Our climate change efforts are aligned with the United Nations Framework Convention on Climate Change (Paris Agreement). Ford is proud to be one of the first U.S. automakers to align with the international community to limit global warming as part of the Paris Agreement. We also support the authority of California and other states to protect people’s health and combat climate change by establishing and enforcing air pollution standards and zero-emission vehicle requirements for new vehicles within their state.

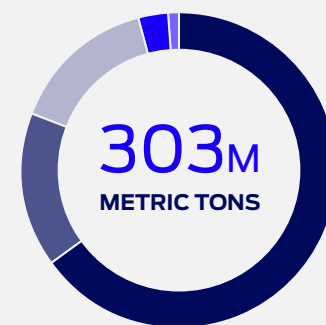
Ford joined RouteZero, a global coalition working towards making sales of all new cars and vans zero-emissions by 2040 globally and no later than 2035 in leading markets.

We have committed to the UN’s Business Ambition for 1.5°C, and to the New Deal for Europe initiative to devise a comprehensive Sustainable Europe 2030 Strategy. We have also joined the First Movers Coalition.

## CARBON NEUTRALITY SCENARIO



## 2021 FORD CO<sub>2</sub> EMISSIONS



- Vehicles – tailpipe: 65%
- Vehicles – energy production: 16%
- Suppliers: 15%
- Misc: 3%
- Operations: 1%

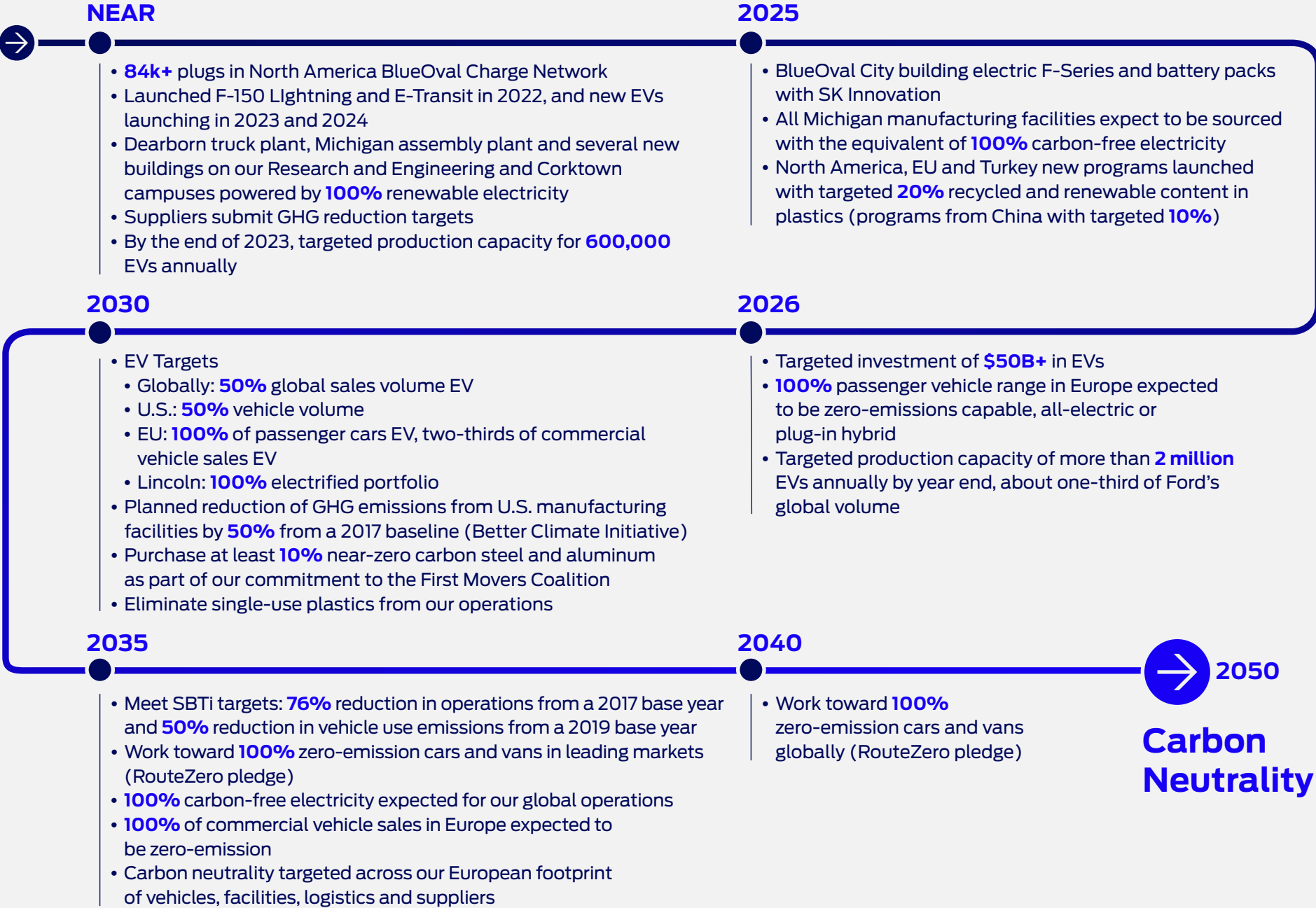
Source: Ford 2022 CDP Report

# 97%

OF OUR EMISSIONS ARE FROM VEHICLE USE, FACILITIES AND SUPPLIERS



### THE ROAD TO CARBON NEUTRALITY



### FORD'S APPROACH AND PROGRESS

Our ambitious 2050 goal demonstrates our commitment to the Paris Agreement, but the challenge of reaching it for our industry and company should not be underestimated. Significant changes will be required to decarbonize global energy and transport systems, and we expect these changes will occur in different product segments and regions at different times. Our approach and our interim targets reflect these differences, focusing on emission reductions.

As Ford works to achieve carbon neutrality, we are investing in our business to transform our value chain, accelerating our progress in reducing greenhouse gas emissions, with the primary focus on our vehicles, operations and supply chain. Emissions reductions are Ford's priority. Carbon offsetting will only be considered in limited cases, for example where viable solutions are unavailable or do not yet exist.



**Reducing our Vehicle Emissions**

Ford expects a compound annual growth rate for EVs to exceed 90% through 2026, more than double forecasted global industry growth. At the end of 2022, Ford was the number two EV brand in the U.S. thanks to product hits like F-150 Lightning, Mustang Mach-E and E-Transit.

Combating climate change isn't just about compliance with government regulation – it's about doing what's right. We are focused on producing vehicles with broad customer appeal.

We are introducing new EV models including the popular Puma, as well as SUVs, crossovers and passenger vans. For commercial customers, the all-new E-Transit Custom will start production in Europe in 2023. The EV

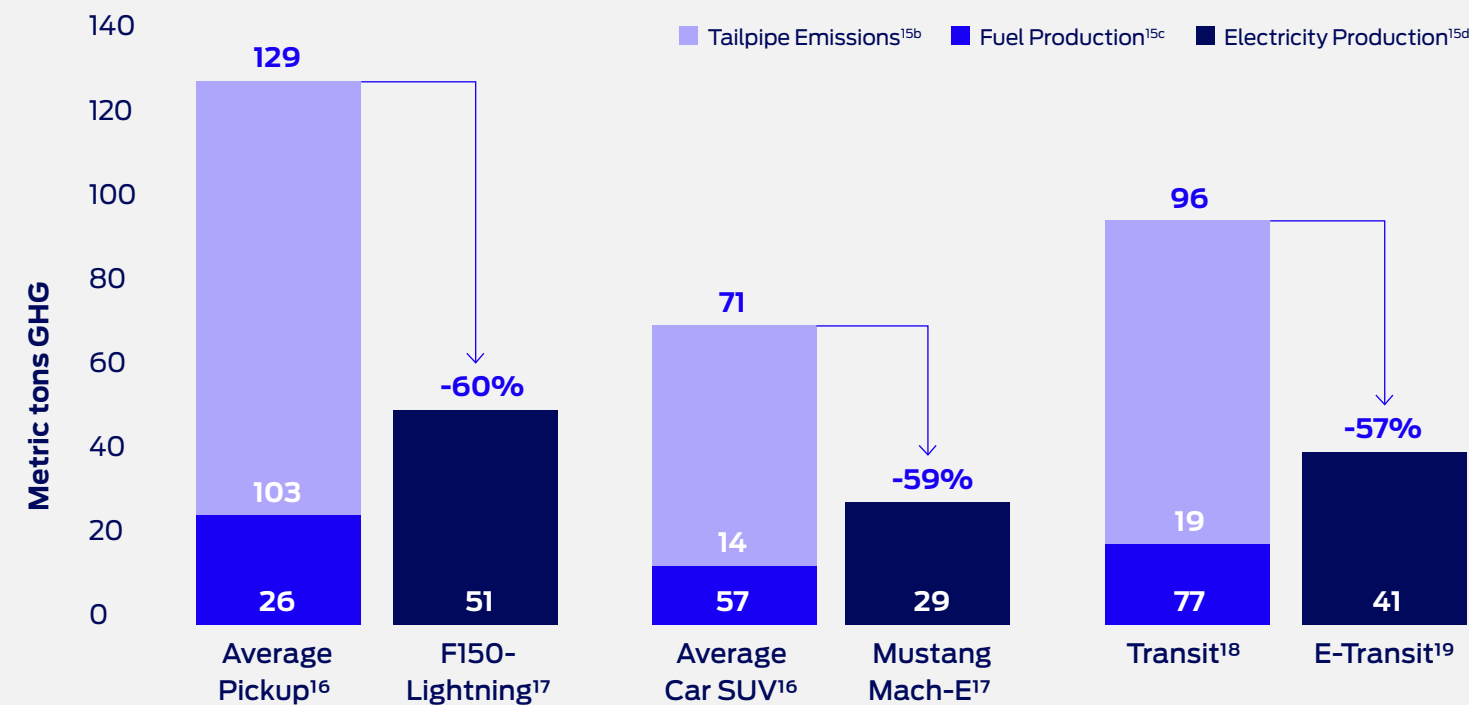
successor to Europe's best-selling van, E-Transit Custom combines advanced electric vehicle technology with Ford Pro's digital ecosystem of software and services to help businesses reduce cost of ownership, work more effectively, and simplify the transition to electric vehicles.

Toward our SBTi vehicle target, we have reduced the on-road well-to-wheels (WTW) g CO<sub>2</sub>/km of our fleet by 2% between 2019 and 2022. Our overall Scope 3 emissions reductions, which includes supplier, vehicle use, and other indirect emissions, between 2019 and 2022 total an estimated 23%.

▶ READ MORE IN THE ELECTRIC VEHICLES, BATTERIES AND CHARGING INFRASTRUCTURE SECTION ON P.24

▶ READ MORE IN THE ICE AND HYBRID ADVANCEMENTS SECTION ON P.30

**LIFETIME EMISSIONS (PER VEHICLE)<sup>15</sup>**



**F-150 Lightning Platinum<sup>15a,17</sup> (ext. range)**



Lifetime EV GHG Savings vs. ICE Vehicle (metric tons)

**78**

Equivalent to gallons of gasoline not used<sup>20</sup>

**8,777**

**Mustang Mach-E RWD<sup>15a,17</sup> (base range)**



Lifetime EV GHG Savings vs. ICE Vehicle (metric tons)

**42**

Equivalent to gallons of gasoline not used<sup>20</sup>

**4,726**

**E-Transit<sup>15a,19</sup> (low roof)**



Lifetime EV GHG Savings vs. ICE Vehicle (metric tons)

**55**

Equivalent to gallons of gasoline not used<sup>20</sup>

**6,189**



**EUROPEAN CARBON NEUTRAL 2035 STRATEGY**

In Europe, we have accelerated our global carbon neutrality strategy with the goal of being carbon neutral in Europe no later than 2035. This means that by 2035, we are targeting all new vehicles to be zero-emission and our European EV and EV component manufacturing facilities to be carbon neutral, as will our Tier 1 suppliers and logistics operations that transport parts to EU production sites and vehicles to customers. Per an interim milestone, all passenger cars in Europe are expected to be EV by 2030.

By 2026, Ford in Europe plans to sell 600,000 EVs annually. We expect 100% of our passenger vehicles to be fully electric and two-thirds of commercial vehicle sales to be all-electric or plug-in hybrid by 2030. All new vehicles in Europe are targeted to be zero-emission by 2035.

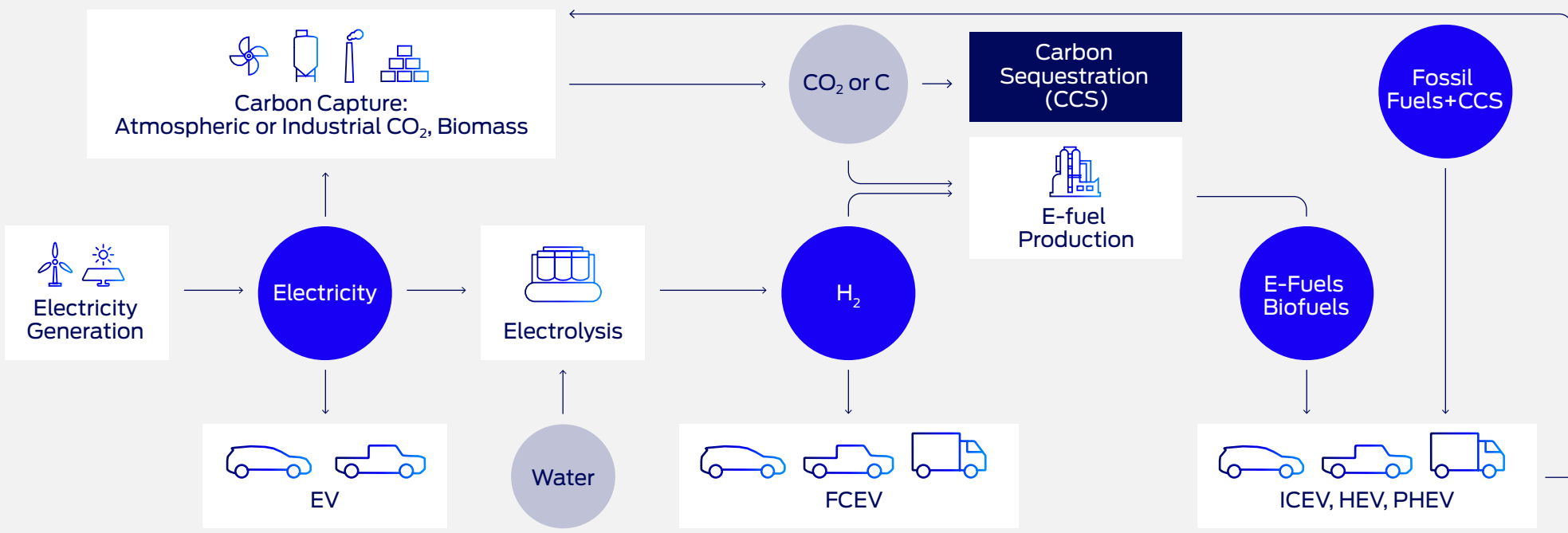
Our strategy is powered by an exciting lineup of EVs, including an electric version of the popular Ford Puma. Electric Ford Pro vehicles and connected services are extending our leadership in the commercial segment.

Not only is the European market seen as ready for an accelerated Ford carbon neutrality strategy, but we also view it as a potential blueprint for other regions.

**100%**

**CARBON-FREE ELECTRICITY EXPECTED IN OUR MANUFACTURING OPERATIONS BY 2035**

**FUTURE CARBON-NEUTRAL TRANSPORTATION OPTIONS**



**EV:** Electric vehicle; **CCS:** carbon capture and storage; **FCEV:** fuel cell electric vehicle; **HEV:** hybrid electric vehicle; **ICEV:** internal combustion engine vehicle; **PHEV:** plug-in hybrid electric vehicle

**REDUCING EMISSIONS IN OUR OPERATIONS**

To achieve our operational emissions reduction goals we are focusing on improving efficiency and increasing our use of carbon-free electricity.

Using energy more efficiently, procuring power from carbon-free sources, reducing GHG emissions from our operations, and making our transportation and logistics more sustainable and efficient all play a role in reaching our carbon neutral future.

These strategies are working. By securing a carbon-neutral and reliable energy supply for our manufacturing plants, making these facilities even more efficient, and leveraging data to drive decisions, we have surpassed our commitment to reduce our global manufacturing Scope 1 and 2 GHG emissions by 18% by 2023 from a 2017 base year. Through 2022, we have achieved a 40.1% reduction.

Our energy-efficiency and conservation efforts over the past decade have focused on improvements to lighting, compressed air, rotating equipment (fans, pumps and motors), heating systems, and process system optimization. We have also improved processes and consolidated plants to improve utilization of operations.

We report our Scope 1 and 2 GHG emissions, participate in emissions trading schemes such as the EU Emissions Trading System (EU ETS) and adhere to a number of carbon reduction initiatives in the United States, Europe, Mexico, Canada, and other countries.

**Our Operations Future is Carbon Neutral**

Looking to the future, we are focused on driving energy efficiency throughout the manufacturing process.

With an investment of \$2 billion, our Cologne plant is currently being transformed into the Cologne Electrification Centre. Major updates to the production facility, with new energy efficient solutions, will save more than 2,000 metric tons of CO<sub>2</sub>e and more than 2,600 megawatt hours (MWh) of electric energy per year. The first European-built, all-electric passenger vehicle for European customers will be produced at the facility from 2023, with a second all-electric vehicle in 2024.

Together with our Cologne plant, our BlueOval City electric vehicle center in Tennessee is leading the way as we reimagine how EVs and batteries are designed, built and recycled.

By 2025, we are expecting all of Ford's electricity supply in Michigan to be attributed to clean energy and every Ford vehicle manufactured in Michigan to be assembled with the equivalent of 100% carbon-free electricity, 10 years earlier than Ford's global goal.

In Mexico, all of our manufacturing locations are now powered with 100% carbon-free electricity, and all of our Ohio manufacturing facilities achieved 100% carbon-free electricity sourcing in 2022.

We are also ensuring that our new offices are energy efficient. Our Research and Engineering and Corktown campuses are expected to achieve an Energy Utilization Intensity that is 50% better than historical Ford office spaces. In Dearborn, we are transforming the Research and Engineering Center into a high-tech, efficient and forward-thinking campus that is designed to be carbon neutral when it is occupied in 2025.

Our energy efficiency efforts are being recognized. We were proud to receive Norfolk Southern Corporation's inaugural Thoroughbred Sustainability Partner award for energy efficiency.

► [READ MORE ABOUT BLUEOVAL CITY ON P.26](#)

**JUST TRANSITION**

The shift to electric vehicles is critical to Ford achieving our business and sustainability goals. However, such a transition comes with challenges that must be addressed.

As we take leadership of the electric vehicle revolution, Ford supports a just transition by preparing our workforce and local communities for the transition to EVs. Ford supports environmental justice by protecting communities from environmental and health hazards and providing meaningful involvement in our decision-making processes. Ford supports climate justice, and the growing understanding that the impacts of climate change will not be felt equitably among all communities.

► [READ MORE ABOUT JUST TRANSITION IN THE HUMAN RIGHTS PROGRESS REPORT](#)

► [READ MORE ABOUT CLIMATE JUSTICE IN THE CLIMATE CHANGE REPORT](#)

**FIRST MOVERS COALITION**

The First Movers Coalition is a global initiative to harness purchasing power and supply chains to create early markets for innovative clean energy technologies. More than 50 companies with a collective market value of about \$8.5 trillion across five continents make up the coalition to help drive demand for zero-carbon technologies.

Ford has pledged that at least 10% of the company's primary aluminum and steel purchases will have near-zero carbon emissions by 2030.

A multi-materials partnership will support the transition toward a carbon-neutral future by supplying Ford with materials including lithium, low-carbon aluminum, and copper. The companies will work together to strengthen the supply of low carbon aluminum for use in Ford vehicles, helping us meet our commitment to the First Movers Coalition.

Ford in Europe is taking further steps to secure supply of low-carbon steel for future products and help reach its carbon neutrality target by 2035. The company is entering into non-binding memorandums of understanding (MOUs) with strategic steel suppliers to secure a supply of low-carbon steel and significantly improve the CO<sub>2</sub> footprint of our supply chain, of which steel production is a key component. As a first application Ford plans to use the low-carbon steel for the production of its all-new, all-electric, medium-sized crossover vehicle, starting in 2023.

**“Reducing emissions to carbon neutral by 2050 is possible if we invest in the right technologies and bring them to scale within the next decade. By joining the First Movers Coalition, Ford is signaling to the market that we want to work with our suppliers to achieve commercially viable green steel and aluminum. The intent and significance of our commitment today has the potential to help build the carbon neutral economy.”**

**SUE SLAUGHTER, FORD DIRECTOR OF SUPPLY CHAIN SUSTAINABILITY**



## Climate Change and Carbon Neutrality – continued



### MANUFACTURE 2030

Ford is among the first American automakers to include its global supply chain on the Manufacture 2030 (M2030) platform. This online tool, along with Climate Action Managers, will provide support for our suppliers with measurement, management and reduction of carbon emissions, water and waste as Ford strives to reach carbon neutrality globally. The move builds on guidance Ford issued to suppliers requiring they establish science-based GHG reduction targets, action plans, and transparent reporting mechanisms to minimize their impact on climate change. M2030 also builds on, scales up and replaces our internal best practice program Partnership for A Cleaner Environment.

Not only will this new program provide support to our suppliers in building a plan toward carbon neutrality, but it will also help Ford identify and prioritize key focus areas and those suppliers requiring extra support. Carbon neutrality will become an increasing focus in our sourcing decisions throughout 2023.

In the first phase of the partnership with M2030, Ford offered the voluntary platform to 3,000 Tier 1 global supplier sites, including suppliers who have yet to establish science-based targets.

### DECARBONIZING OUR SUPPLY CHAIN

Our supply chain is essential to achieving our carbon neutrality goals. This will require cutting emissions across our entire value chain, particularly from purchased energy, goods and services. Our goal is to ensure that everything we make – or that others make for us – upholds the highest sustainability standards.

Ford has outlined conduct guidelines for its suppliers since 2003, and in 2021, established a formal [Supplier Code of Conduct](#) that applies clear expectations related to human rights, the environment, responsible material sourcing and lawful business practices for every supplier.

The [Supplier Code of Conduct](#) requires Ford suppliers to establish science-based GHG reduction targets, action plans, and transparent reporting mechanisms aligned with the Paris Agreement to minimize their impact on climate change.

In 2022, we ran internally mandatory environmental training for Ford's Supply Chain team. In 2022, Ford trained 2,647 employees in addition to 844 purchasing employees in Supply Chain Sustainability topics. Ford also trained 979 suppliers in various sustainability-related topics.

All our production suppliers were required to submit their GHG reduction targets by the end of 2022. We will use this information to develop a joint roadmap with them on our journey toward carbon neutrality.

We use internal targets for increasing engagement with our supply chain partners, including building on our successful CDP Supply Chain reporting program and our internal best practice Partnership for A Cleaner Environment (PACE) program.

In 2022, we joined two supply chain initiatives that will help us achieve our climate goals: First Movers Coalition and Manufacture 2030, which has replaced PACE.

### PARTNERSHIPS

Addressing climate change requires collaboration with multiple partners and organizations in the public and private sectors to drive progress. Together we face challenges including customer acceptance of electric vehicles, government regulations, economic factors and the availability of carbon neutral electricity and renewable fuels.

We hope that all business leaders will join us in addressing climate change with the urgency that's needed to meet the crisis and will partner with government stakeholders to find solutions.

Public-private partnerships are essential to making the transition to electric vehicles on the timeline needed to avoid the worst consequences of climate change.

We are enthusiastically supportive of consumer EV incentives to accelerate that transition by making electric vehicles even more affordable while supporting manufacturing jobs.

We are working with government partners to secure the supply chains and develop the technologies we need to produce the batteries and vehicles of the future here in the U.S.

We partner with groups including the Climate Leadership Council and the Center for Climate and Energy Solutions Business and Environmental

Leadership Council to demonstrate our leadership and advocate for stronger GHG policy, climate resiliency, and infrastructure that helps remove obstacles and builds the market for EVs.

► [READ MORE IN THE GOVERNMENT REGULATIONS, POLICY AND ENGAGEMENT SECTION ON P.94](#)

► [READ MORE IN THE 2022 U.S. POLITICAL ENGAGEMENT REPORT](#)

### MEASURING OUR VEHICLE CARBON FOOTPRINT

#### Life Cycle Assessment of Our Vehicles

Reducing GHG emissions associated with the use of our vehicles is critical as we work toward our goal of carbon neutrality by 2050. Understanding the potential environmental and cost impacts of our vehicles or services over their life cycle – from the acquisition of raw materials, through vehicle production, distribution and use, to end-of-life disposal or recycling – helps us reduce our environmental footprint.

Vehicle use is the main source of GHG emissions. Use-phase CO<sub>2</sub> emissions depend not just on vehicle design, but also the energy source and the way the vehicles are driven. Using the GHG Protocol methodology and preliminary data to estimate emissions from vehicle on-road use, we calculate that our vehicles sold in 2022 will produce approximately 287 million metric tons of CO<sub>2</sub>e from fuel production and combustion over a 150,000-mile lifetime, on a well-to-wheels basis.

In addition to our focus on improving tailpipe or tank-to-wheels (TTW) emissions, we also continue to study well-to-wheels (WTW) impacts in alignment with our carbon neutrality goal. These include the production well-to-tank (WTT) and TTW consumption of fuel and electricity during vehicle use. WTW emissions vary between vehicle, propulsion system, and energy source. Our Scope 3 SBTi vehicle CO<sub>2</sub> emissions target is based on WTW emissions.

While WTT emissions are part of the total vehicle life cycle, they are beyond our direct control. Consequently, we collaborate with a range of partners, including fuel and electricity producers, infrastructure developers, and governments, to address these impacts.

As the electric grid continues to shift to carbon-free energy sources, CO<sub>2</sub> emissions from electricity production are expected to further decrease creating even greater CO<sub>2</sub> emissions savings.

**VEHICLES POWERED BY ALTERNATIVE FUELS**

Conventional Fuel	Alternative Fuel(s)	Production Method and Feedstocks	Typical Blend Levels in Gasoline or Diesel (varies by region)	Vehicle Type	Ford Vehicle Models
Gasoline	<b>Ethanol (low and high level blends)</b>	Fermentation of corn starch or sugar cane (1st generation) or from non-food biomass (2nd generation)	10%, 15%, 28% or up to 85% in gasoline	Conventional spark-ignited IC engine. Flex-fuel vehicle (FFV) adaptations for E85	<b>Low-level blends</b> compatible in conventional vehicles for each region <b>E85 (U.S.):</b> F-150, F-250, F-350, F-450 Super Duty, Police Interceptor Utility, Transit, Transit Connect, Transit Cutaway/Chassis Cab, E-350, E-450 Cutaway and Stripped Chassis <b>E85 FFV (France and Sweden):</b> Kuga, Fiesta, Puma, Focus, Transit Connect
	<b>E-gasoline</b>	Chemical synthesis using CO <sub>2</sub> , electricity and water	Not yet available, theoretically up to 100% in gasoline	Conventional spark-ignited IC engine	Expected to be compatible in all conventional gasoline vehicles
Diesel	<b>Biodiesel</b>	Transesterification of plant oils (soy, canola, rapeseed, corn, palm) or animal fats	5%, 7%, 20% in diesel fuel	Conventional compression ignition IC engine	<b>B7 (Europe):</b> All diesel models <b>B20 (U.S.):</b> F-250, F-350, F-450, F-550, F-600, F-600, Super Duty Pickups and Chassis Cabs; F-650 and F-750 Medium Duty Chassis Cab
	<b>Paraffinic diesel (renewable diesel, E-diesel)</b>	Hydrotreating of plant oils or animal fats. Chemical synthesis using CO <sub>2</sub> or biomass, electricity and water	33% to 100% in diesel fuel	Conventional compression ignition IC engine	<b>R33 (Europe):</b> All diesel models <b>R100 (Europe):</b> Transit, Transit Custom, Transit Courier, Transit Connect, Ranger
Not applicable	<b>Compressed Natural Gas (CNG, also biomethane, e-methane)</b>	Natural gas from fossil resources. Anaerobic digestion of biomass. Chemical synthesis using CO <sub>2</sub> , electricity and water	Not applicable	Spark-ignited IC engines with CNG fuel system	Wide range of U.S. commercial vehicles with CNG/Propane prep kits: F-250, F-350, F-450, F-550, F-600, F-650, F-750, Transit Connect, E-Series Cutaway, F-59, F-53 RV Stripped Chassis
	<b>Liquefied petroleum gas (LPG)</b>	Propane and butane from fossil resources	Not applicable	Spark-ignited IC engines with LPG fuel system	
	<b>Compressed hydrogen (H2)</b>	Steam reforming of methane or electrolysis of water	Not applicable	Fuel cell vehicle or spark-ignited IC engines with H2 fuel system	

**ALTERNATIVE FUELS**

Alternative fuel vehicles can reduce GHGs on a well-to-wheels basis, which includes emissions from both producing and consuming the fuels.

**Reducing Carbon Dioxide Emissions**

Alternative fuel vehicles enable our customers to reduce their carbon dioxide emissions footprint during the transition to electric vehicles. Depending on infrastructure, technology development, policy, and customer acceptance, our path toward zero-emission cars and vans globally will be powered by some combination of electricity, hydrogen, and hydrocarbon fuels from sustainable sources.

Examples of hydrocarbon fuels are sustainable biofuels and fuels synthesized from electricity, water, and carbon. Synthetic fuels made from electricity are often called “e-fuels.” We anticipate that different regions will adopt different solutions and different mixes of electricity, hydrogen, and hydrocarbon fuels.

According to Argonne National Laboratory’s GREET 2022 model, compared to conventional PFI gasoline engine with 10% ethanol (E10) vehicles, GHG emissions are about 15% lower for diesel and compressed natural gas (CNG) vehicles, 25% lower for 20% biodiesel blend (B20) vehicles and 30% lower for 85% ethanol from corn (E85) vehicles. Even more reduction is possible with hydrogen fuel cell vehicles with 55% lower GHGs using hydrogen from steam methane reforming.

EVs reduce emissions even more with almost 60% lower emissions when charged with U.S. average grid electricity. When hydrogen and electricity are produced using carbon-free energy, the in-use GHG reduction is up to 100% on a well-to-wheels basis.

We offer our customers many vehicles that are capable of using these reduced-GHG fuels. All our diesel vehicles are compatible with low-level biodiesel blends including B20 in the U.S., Thailand, and Malaysia; B7 in Europe; B30 in Indonesia; and B15 in Brazil. Also in Europe, our Transit, Transit Custom, Transit Courier, Transit Connect, and Ranger are compatible with renewable paraffinic diesel fuels such as HVO, renewable diesel and e-diesel, and can be used at higher blends, typically from 33% to 100%.

**Developing Alternative Fuel Options**

Ford continues to research and develop alternative powertrains and fuel options to provide customers with efficient, low-carbon alternatives across all our vehicles as we move toward carbon neutrality.

Our efforts include the development of hydrogen fuel cell technology for our Medium and Heavy-Duty vehicles. In partnership with the U.S. Department of Energy (DOE) we will develop and demonstrate hydrogen fuel cell electric Class-5 Super Duty trucks through the DOE SuperTruck 3 program. With this project, we intend to show that fuel cell electric technology offers cost, payload, towing, and refueling times that are equivalent to conventional gasoline and diesel trucks.

In motorsports, a next-generation Ranger Raptor, race-prepped but remaining stock and street legal, finished the SCORE-International Baja 1000, one of the world’s toughest and most prestigious off-road races, in first place amongst the stock classes, then drove back to base in Riverside, California. The nearly flawless Ford Performance global effort was powered by low carbon biofuel blend which consists of more than 30% sustainably sourced bio components. The Ranger Raptor’s success in the race demonstrates that commitment to sustainability does not require compromising performance.

In two 2022 studies, Ford researchers helped document the critical importance of low carbon energy and fuels in the transition to zero-emission vehicles.

[▶ READ MORE IN THE CLIMATE CHANGE REPORT](#)

**MEETING CUSTOMER PREFERENCES**

We are working to make EVs more accessible to millions, addressing barriers to entry such as charging and cost, and improving the EV customer purchase experience.

Looking ahead, we will introduce the next generation of EVs that are fully updatable and constantly improving, with an array of software-enabled services.

Our commercial customers demand value and productivity. We are providing both through the industry’s most comprehensive and flexible range of electric and internal combustion commercial vehicles.

**A PORTFOLIO APPROACH**

Vehicles	Lower-carbon energy options	Customers
Accessible lower-carbon options: <ul style="list-style-type: none"> <li>• Advanced propulsion options</li> <li>• Electric vehicles</li> <li>• Hybrid vehicles</li> <li>• Fuel cell vehicles</li> <li>• Aerodynamic improvements</li> <li>• Weight reductions</li> </ul>	Vehicles that use carbon-neutral e-fuels: <ul style="list-style-type: none"> <li>• Electricity</li> <li>• Biofuels</li> <li>• Compressed natural gas (CNG)</li> <li>• Liquefied petroleum gas (LPG)</li> <li>• Hydrogen</li> <li>• Carbon-neutral e-fuels</li> </ul>	Providing options for different vehicles and fuels, and how those vehicles will be maintained  Promoting “eco-driving” through training, information, and in-vehicle technology

Ford Pro combines digital and physical services to help optimize and maintain customer fleets while offering public, depot, and employee home charging of EVs for the next day’s work.

We will continue to improve fuel economy and reduce CO<sub>2</sub> emissions across our global vehicle portfolio, while rapidly scaling our EV production rate.

**CLIMATE CHANGE REPORTING**

Transparent climate change reporting is a priority for us. In the 2022 CDP we once again received A ratings for both Climate and Water (our fourth year in a row as “A” for Climate and eighth for Water). We have issued climate change scenario reports since 2019. Our [Climate Change Report](#) (also known as TCFD Report) includes climate change scenario analysis and an index to TCFD metrics. The report outlines our strategies, World Energy Outlook 2022 Scenarios, the resiliency of our strategies to those scenarios, and how we will monitor and review the impacts of climate change on our strategies.



**▣ To further stimulate demand, we are working to make EVs more accessible to millions, addressing barriers to entry such as charging and cost, and improving the EV customer purchase experience.**

# Energy Consumption and Renewable Energy



**Energy:** Use 100 percent carbon-free electricity in all manufacturing by 2035



## 60.6%

OF ELECTRICITY FOR OUR GLOBAL MANUFACTURING OPERATIONS WAS CARBON-FREE IN 2022

## 42.6%

OF ELECTRICITY FROM GLOBAL OPERATIONS WAS RENEWABLE

**Ford's energy future is carbon-free. We are working toward sourcing 100% carbon-free electricity for our global manufacturing by 2035 through a mix of wind, solar, nuclear, geothermal, biomass, and hydro.**

Increasing the percentage of carbon-free electricity consumed in Ford's global manufacturing plants is one of our sustainability-linked performance metrics.

We are making good progress. In 2022:

- 60.6% of electricity for our global manufacturing operations was carbon-free.
- 42.6% of electricity from global operations was renewable.
- All purchased electricity for European operations is now renewable.
- All of our manufacturing locations in Mexico are now powered with 100% carbon-free electricity.
- All of our manufacturing facilities in Ohio achieved 100% carbon-free electricity sourcing in 2022.
- We are on track to source 100% carbon-free electricity in Michigan by 2025 through partnerships with local utilities.

**Modernizing Plants for Energy Efficiency**

Energy efficiency is a priority as we modernize existing plants and design new ones. Ford continues to focus on developing and implementing facility infrastructure projects at existing manufacturing facilities to reduce energy consumption and GHG emissions.

The \$2 billion conversion of our Cologne, Germany plant operations includes energy efficiency solutions that are projected to save 2,600 MWh of power and reduce carbon dioxide emissions by more than 2,000 metric tons of CO<sub>2</sub>e annually. In 2022, Ford implemented energy efficiency projects at multiple manufacturing locations in North America with a total implementation cost of more than \$26 million; these projects are expected to reduce energy consumption by more than 21,000 MWh and GHG emissions by more than 12,400 metric tonnes.

▶ [READ MORE ABOUT CARBON-FREE ELECTRICITY AT BLUEOVAL CITY AND BLUEOVAL SK BATTERY PARK ON P.26](#)



**CARBON-FREE ELECTRICITY IN MICHIGAN**

Through a new agreement with DTE Energy, Ford will soon be able to attribute all its electricity supply in Michigan to clean energy, a major step toward Ford's goal to reach carbon neutrality. As part of the agreement, DTE will add 650 megawatts of new solar energy capacity in Michigan for Ford by 2025. The purchase is a strategic investment in Michigan through DTE's MIGreenPower program and is the largest renewable energy purchase ever made in the U.S. from a utility. According to data collected by the Solar Energy Industries Association, once installed, the arrays will increase the total amount of installed solar energy in Michigan by nearly 70%.

By 2025, we expect every Ford vehicle manufactured in Michigan to be assembled with the equivalent of 100% carbon-free electricity, 10 years earlier than Ford's global goal. Ford's purchase of carbon-free electricity will avoid as much as 600,000 metric tons of CO<sub>2</sub>e emissions annually, improve the local environment and add resiliency to the local grid.

“Now, more than ever, we all realize the need to use renewable energy sources. As we move to an all-electric future and carbon neutrality across our manufacturing footprint at Ford, investments in innovations like this new solar power plant in Valencia are important contributions in our ongoing ambition to help build a better world.”

STUART SOUTHGATE, DIRECTOR,  
ENVIRONMENTAL AND SAFETY  
COMPLIANCE, FORD OF EUROPE

**Renewable Energy**

Ford’s Dunton, Dagenham, and Daventry facilities in the U.K., the Craiova plant in Romania, and all facilities in Cologne, Germany including the vehicle assembly and engine plants, as well as the Research Center in Merkenich, and the Valencia plant in Spain are powered by 100% carbon-free electricity. We have installed a 2.8 megawatt-peak (MWp) solar array at Valencia and that will be increased to 4.9 MWp in 2023.

Ford in Argentina, South America, achieved 60% of carbon free electricity. The Pacheco Manufacturing Plant in Argentina is on track to achieve 100% renewable electricity by 2024. Also, Ford’s Tatuí Proving Ground in Brazil has used 100% renewable electricity since 2021.

The Ford Silverton Assembly Plant in Pretoria, which expanded production of the all-new Ranger pickup truck in 2022, continues to move toward energy self-sufficiency and carbon neutrality. The first phase of the plant’s Project BlueOval is showing results with the site now sourcing 35% of its electricity from solar power through the installation of solar photovoltaic carports for 3,600 vehicles. This solar array at the Silverton plant generates 13 megawatts (MW) of on-site solar energy reducing carbon emissions by more than 20,000 metric tons of CO<sub>2</sub>e annually.

A new solar plant at our Almussafes manufacturing facilities in Valencia is one more step toward Ford’s goal of carbon neutrality across our European footprint of facilities, logistics and Tier 1 suppliers by 2035.

The photovoltaic area, that converts solar energy into electricity, features two zones of solar panels that are capable of producing the equivalent power every year to run 1,400 average homes. The initial production of close to 4,641 MWh per year will increase in 2023 by 3,762 MWh per year, the equivalent of 1,100 additional average homes. In practice, this means that Ford’s Valencia factory will be making a meaningful reduction in its current electricity demand from the national grid this year.

Ford is looking to expand the areas of solar panels on further non-productive land targeting to reach 10 megawatts of peak power by 2024. The feasibility of potential future solar panel installations on the roofs of factory buildings is also being studied.



Solar energy is also playing a key role in Thailand, South Africa, and China, where installations of on-site solar projects continue. In Thailand, the AAT plant is generating 5 MW of on-site solar power. In China, the Changan Ford Hangzhou Plant continues to reap the benefits from the installation of solar photovoltaic panels in 2019 and 2022 where the annual solar power supply now accounts for more than 30% of the total power consumption of the plant – up from 25% in 2020. The Ford Joint Venture Jiangling Automobile production plants also have a planned installation of solar voltaic panels that are expected to generate 63 MW of solar power and reduce carbon emissions by more than 45,000 metric tons of CO<sub>2</sub>e annually.

# Circular Economy and End-of-Life

## Using recycled and renewable materials in our vehicles' design enables us to both reduce landfill waste and use fewer natural resources.

Over 85%<sup>4</sup> of vehicle parts and materials are recycled and reused at their end of life. Understanding that the metallic portions of vehicles are already highly recycled, we are focusing on recycled and renewable content in plastics.

### PLASTIC IN VEHICLES

The average SUV contains more than 750 pounds of plastic. By increasing the sustainability of plastics in our vehicles' design, we can make a beneficial impact on the environment – and our business.

By 2025 we aim to use 20% recycled and renewable plastics in new vehicle designs for North America, Europe and now also Turkey. Our target for China is 10%. Our broader aspiration is to utilize only recycled or renewable content in vehicle plastics. Ford has begun the process of tracking the recycled and renewable content on pilot programs and will continue work to operationalize the process for future programs.

Waste products generated by other industries comprise much of our recycled and renewable content. We use the ISO 14021 standard to account for this content. When tracking our status for recycled content, we use the part inventory list associated with the high volume variant available for each program.

### Using Recycled Materials for Vehicle Parts

While not every polymer can easily use recycled material, there is potential for recycling to reduce the carbon footprint of some of our plastics by 70-90%.

Through activities such as transforming recycled plastic bottles into vehicle parts we are helping to play a major role in promoting environmentally friendly auto parts.

Due to its light weight, recycled plastic is ideal for the manufacture of underbody shields, engine under shields and front and rear wheel arch liners that can help improve vehicle aerodynamics. We also use post-consumer nylon and polypropylene carpeting for cylinder head covers, fans and shrouds, cam covers, and carbon canisters.

### Converting CO<sub>2</sub> to Polyurethane Foam

Ford has been awarded a grant by the U.S. Department of Energy to conduct research on using CO<sub>2</sub> as a feedstock to make polyurethane foams. The \$2.5 million grant is one of 30 DOE projects to help decarbonize the U.S. industrial sector, advance clean manufacturing and improve America's economic competitiveness.

Using polyols that are derived from captured waste CO<sub>2</sub>, Ford will develop and scale up technology to produce polyurethane foams used for automobiles for seating and other applications such as for crash protection and noise, vibration, and harshness reduction. Machine learning will be used to accelerate the development and formulation of the polyol molecular platform and foams to meet manufacturability, performance, and cost metrics while improving sustainability as measured through Life Cycle Assessment (LCA).

### Using Renewable Materials for Vehicle Parts

Renewable, plant-based materials are also part of our sustainability strategy. Ford is a leader in this space, using nine plant-based materials in current and past vehicle production. These robust materials have multiple benefits including enabling lighter weight parts that improve fuel economy, sequestering carbon and reducing global warming impacts. They also require less energy to manufacture. Our industry-first sustainable materials include soy foam, wheat straw, rice hulls, tree-based cellulose, and coffee chaff.

Soy seat cushions, backs and headrests were one of many Ford firsts. They have been used in every Ford North American built vehicle for more than a decade, over 18.5 million vehicles. Bio-based foams have reduced greenhouse gas emissions by over 228 million pounds, and use of soy foam, launched on Mustang and now on all American vehicles, has helped save 5 million pounds of petroleum annually since 2008.

Our Advanced Polymer Technologies team continues to pioneer the development of new sustainable plastic materials including using waste from olive production to reinforce plastics, captured carbon dioxide in plastic formulation and polymer resins made from renewable feed stocks. For example, we are testing whether the tree-based cellulose composites, that were incorporated into Lincoln Continental consoles, can be used in other applications.



**Materials:** Utilize only recycled or renewable content in vehicle plastics



### WHAT IS A TYPICAL VEHICLE

Around **40,000** parts...  
using **1,000** materials...  
and **10,000** chemical substances...



**75%**

METALS (ALREADY HIGHLY RECYCLED)

**17%**

PLASTICS, ELASTOMERS, TEXTILES (AREA TO IMPROVE)

**4%**

LIQUIDS (ALREADY RECYCLED OR REUSED)

**4%**

OTHER

We are also deriving value from waste material, using recycled ocean plastics in the Bronco Sport. This exemplifies our approach to the circular economy as we seek to migrate these sustainable materials to other vehicles and applications.

**BATTERY RECYCLING**

Ford views batteries of end-of-life vehicles as a crucial part of our supply chain, and are committed to increasing battery recycling over time. To further these efforts we are supporting various battery recycling companies, including with letters of support for US DOE grants.

In Europe, new regulations will require manufacturers to report on their extended producer responsibility for proper battery recycling. In advance of the European Battery Regulation, we are partnering with Everledger to pilot a battery passport.

The pilot leverages Everledger’s technology platform to track EV batteries throughout their life cycle to ensure responsible management during use and recycling at the end of their useful life. This will allow Ford to gain visibility on out-of-warranty batteries, validate responsible end-of-life recycling, and gain access to data such as recycled critical minerals produced and associated carbon dioxide emissions savings.



**RECYCLED BATTERIES ARE POWERING WATERSHED**

Ford has partnered with the dealer network, Motolite Ramcar Battery and Philippine Business for Social Progress (PBSP) to advocate the proper disposal and legitimate recycling of used lead acid batteries. Through this partnership, Motolite is donating to PBSP an amount for every battery collected from each dealer group. The fund, which is augmented by a \$25,000 grant from Ford, will be used for the rehabilitation of the Marikina and Buhisan watersheds in the Philippines. Local partners began planting in late 2022. Ford and dealer employees will join the tree planting effort in July 2023.

**CLOSING THE LOOP IN ALUMINUM RECYCLING**

Ford’s closed loop recycling system maximizes aluminum recycling in our plants and minimizes the need for primary metal.

As the largest automotive aluminum recycler in the world, we have worked closely with our aluminum sheet suppliers to create unique alloys. Our system recovers aluminum scrap during parts stamping but keeps the various aluminum alloys separated so they can be recycled back into fresh alloy for new vehicles.

We currently recycle up to 20 million pounds of aluminum each month at our Dearborn Stamping, Kentucky Truck and Buffalo Stamping facilities. This represents 20-30% of our aluminum sheet coil purchases. Making recycled aluminum only takes around 5% of the energy needed to make new aluminum, according to the Aluminum Association, and minimizes the need for primary metal.

▶ [READ MORE ABOUT FIRST MOVERS COALITION ON P.45](#)



Ford views batteries of end-of-life vehicles as a crucial part of our supply chain, and are committed to increasing battery recycling over time.

**228M**

POUNDS OF GHG EMISSIONS SAVED BY USING BIO-BASED FOAMS

**5M**

POUNDS OF PETROLEUM SAVED ANNUALLY SINCE 2008

**\$25k**

GRANT TO REHABILITATE WATERSHEDS IN THE PHILIPPINES



### REMANUFACTURING SUPPORTS SUSTAINABILITY GOALS

Remanufacturing has been an important part of Ford's sustainability effort since the 1940s. Remanufacturing turns a previously used, sold or worn-out part into a like-new or better-than-new condition which can be warranted in performance level and quality.

Remanufacturing saves considerable energy, utilizes much less raw material compared to a new unit, substantially reduces CO<sub>2</sub> emissions, and helps extend the life cycle of the vehicle product line. Since Henry Ford introduced remanufacturing in response to WWII shortages of steel and iron, Ford has remanufactured powertrain assemblies, turbos, injectors,

steering components, brake components, electronic modules and starters/alternators.

Reclaimed powertrain material supports Ford sustainability objectives. In 2022, we reclaimed 3,794 metric tons of steel and 2,777 metric tons of aluminum from transmission material and 1,284 metric tons of cast iron, 289 metric tons of steel and 515 metric tons of aluminum from engine material. Combined, Ford supplied 104,000 remanufactured engines and transmissions in the U.S.

Going forward, we are looking to expand the program beyond Ford Blue and remanufacture certain components of our EVs.

### Life Cycle Assessment (LCA) Research and Regulations

We conduct LCA-based studies to evaluate potential environmental implications of vehicle raw materials and manufacturing; for example, aluminum production and recycling, recycled polymers, cradle-to-gate impacts of lithium-ion batteries, environmental benefits of using second-life EV batteries, and additive manufacturing.

In the EU, we are anticipating regulations related to LCAs.

- We are preparing for the EU Battery Regulation, which will require a Carbon Footprint Declaration. As of the publication of this report, the regulation has not been officially published
- The EU CO<sub>2</sub> Fleet Regulation requires the European Commission to set out a common Union methodology for the full life cycle CO<sub>2</sub> emissions by 2025, with voluntary reporting from 2026 onwards
- UN Economic Commission for Europe's Working Party on Pollution and Energy, a subsidiary body of the World Forum for Harmonization of Vehicle Regulations, has set up an informal working group on a harmonized vehicle LCA methodology with adoption of final recommendations by end of 2025

### MINIMIZING SUBSTANCE OF CONCERN

Minimizing substances of concern in our products and facilities is a priority. We work with suppliers to reduce targeted chemicals through process efficiencies, product replacements, or reformulation.

► [READ MORE IN THE GRI INDEX](#)

# Air Quality



**Air:** Attain zero emissions from our vehicles and facilities

**Clean air is a fundamental human right. Reducing emissions from our vehicles and facilities will reduce air pollution, help protect people's health, and combat climate change.**

► [READ MORE ABOUT OUR PROGRESS ON THIS SALIENT HUMAN RIGHTS ISSUE IN OUR HUMAN RIGHTS PROGRESS REPORT](#)

As air quality standards become increasingly stringent around the world, we continue our work to reduce emissions of air pollutants (hydrocarbons, carbon monoxide, nitrogen oxides, and particulate matter). These pollutants, which are emitted by internal combustion engine (ICE) vehicles can affect air quality and can potentially impact human health. In addition, brake particulates and electricity generation for electric vehicles (EVs) can impact air quality.

Global criteria emission standards have led to lower vehicle emissions and, in turn, to major improvements in air quality. We are proud to meet or exceed all global criteria emission standards as they are introduced.

For example, we have lowered tailpipe criteria emissions by between 15% and 55% for 90% of the Class 2b–7<sup>21</sup> commercial vehicles we will produce in 2023 model year.

We have also reduced tailpipe criteria emissions in the Class 2b–7 commercial vehicle segments by 10–35% relative to the outgoing 2022 model year products. For diesel we lowered tailpipe criteria emissions by 15% – 55% in our Class 2b–7 commercial vehicles equipped with diesel engines relative to 2022 model year.

In addition to reducing GHG emissions, our electric vehicle strategy is aimed at helping to improve local air quality. Access to EVs can help provide health, economic, and mobility benefits, especially in communities that bear a disproportionate burden from climate change and air pollution.

### TIGHTENING STANDARDS

Plans to implement 100% zero-emission vehicle (ZEV) sales targets are underway or anticipated in several countries and states.

The EU is mandating that all new vehicle sales in the EU be zero-emissions vehicles by 2035. Some European countries have regulations in place or are working on regulations that will advance this date even further for those countries.

And in California, the California Air Resources Board voted in 2022 to rapidly scale down light-duty passenger car, truck and SUV emissions starting with the 2026 model year through 2035. Under the new guidelines, by 2035 all new passenger cars, trucks and SUVs sold in California will have zero emissions<sup>22</sup>. Ford supports California's actions to strengthen vehicle emission standards and expects this landmark standard to be adopted by other U.S. states.

### Our Progress in China

From 2021 to 2022, Ford manufacturing plants in China reduced VOC emission intensity over 40% (8 g/m<sup>2</sup>), equivalent to an annual reduction of over 500 metric tons of VOC emissions through various management and engineering investment measures, contributing to cleaner air.

### REGIONAL EMISSIONS STANDARDS

	United States	Europe	China	Other Regions	
<b>Already Compliant or Surpassing</b>	<ul style="list-style-type: none"> <li>Environmental Protection Agency (EPA) Tier 2 regulations</li> <li>California's Low Emission Vehicle II (LEV II) program</li> </ul>	<ul style="list-style-type: none"> <li>Euro 6d Real Driving Emissions (RDE) standards</li> </ul>	<ul style="list-style-type: none"> <li>National stage-6a (China-6a) LDV and HDV emissions standards nationwide</li> <li>National stage-6b (China-6b) LDV emission standards in five cities and provinces</li> </ul>	<ul style="list-style-type: none"> <li><b>India:</b> Bharat Stage VI</li> <li><b>Brazil and Argentina:</b> PROCONVE L6 and standards based on Euro 5</li> <li><b>Middle East:</b> Standards based on Euro 2, Euro 3, Euro 4 and Euro 5</li> <li><b>S. Korea Gasoline vehicle:</b> California LEV III</li> <li><b>S. Korea Diesel Vehicle:</b> Euro 6d RDE</li> </ul>	<ul style="list-style-type: none"> <li><b>Thailand, Philippines:</b> Euro 4</li> <li><b>Vietnam:</b> Euro 5</li> <li><b>Cambodia:</b> Euro 4</li> <li><b>Australia:</b> Euro 5</li> </ul>
<b>Becoming Compliant as Phased In</b>	<ul style="list-style-type: none"> <li>EPA Tier 3 standards</li> <li>California's LEV III standards, closely aligned with the EPA's Tier 3 program</li> </ul>		<ul style="list-style-type: none"> <li>National stage-6b (China-6b) LDV and HDV emissions standards nationwide (July 2023)</li> </ul>	<ul style="list-style-type: none"> <li><b>Brazil:</b> PROCONVE L7 and L8</li> <li><b>Chile:</b> Euro 6b or U.S. Tier 3 Bin 125, Euro 6c or U.S. Tier 3 Bin 70</li> <li><b>Peru:</b> Euro 6b, Tier 3 Bin 125</li> <li><b>Colombia:</b> Standards based on Euro 6 (diesel)</li> <li><b>Uruguay:</b> Euro 5</li> <li><b>Middle East:</b> standards based from Euro 2 through to Euro 6</li> <li><b>Indonesia:</b> Euro 4 diesel</li> </ul>	<ul style="list-style-type: none"> <li><b>Malaysia:</b> Euro 4 Diesel</li> <li><b>Singapore:</b> Euro 6d</li> <li><b>Thailand:</b> Euro 5</li> <li><b>Cambodia:</b> Euro 5</li> <li><b>Australia:</b> Euro 6d</li> </ul>

# Water Use and Stewardship

**Our water strategy aims to continue Ford's position as a leader in making zero water withdrawals for manufacturing processes in order to support freshwater availability in local communities.**

► [READ MORE ABOUT OUR PROGRESS ON THIS SALIENT HUMAN RIGHTS ISSUE IN OUR HUMAN RIGHTS PROGRESS REPORT](#)

We consider freshwater to include both surface water and groundwater. This is aligned with, and extends beyond, the Global Reporting Initiative (GRI) definition of freshwater as surface water.

Our 2025 Global Manufacturing Water Strategy targets a 15% reduction in absolute freshwater usage from a 2019 base year. In 2022, our absolute freshwater reduction was 21.7%. While lower production volumes played a role in that reduction, we made great progress in implementing water reduction projects that will contribute to sustained water savings.

Since 2000, we have achieved a 76.2% reduction in annual water use, accounting for 186.3 cumulative gallons of water. Through integrating more water efficient processes and technologies in our manufacturing systems to further decrease our water consumption, our water conservation actions are equal to providing a year's worth of water to 1.7 million homes.

We are committed to extraction policies and practices that ensure our operations don't restrict other users' access to water. One example is our efforts around utilizing alternative water sources, like rainwater and wastewater from other organizations, for our manufacturing processes.

### ACHIEVING ZERO FRESHWATER FOR MANUFACTURING

Our Irapuato Transmission Plant in Mexico achieved zero freshwater usage for manufacturing in 2022. This was accomplished through a combination of ensuring excess water was not used, end of pipe recycling, and securing a source of treated wastewater from an offsite location.

The Irapuato Transmission Plant is the second Ford facility to achieve the zero freshwater for manufacturing goal, joining the Chihuahua Engine facility. In 2022, our use of alternative water was 8% in the water scarce areas.

In addition to improving water quality discharges at our sites, we are applying freshwater reduction methods at our sites that mimic the behavior and performance of the local ecosystem.

► [READ ABOUT WATER USAGE AT BLUEOVAL CITY ON P.26](#)

### WATER RECYCLING

Our Louisville Assembly Plant was recognized by the EPA in 2022 for its leadership and commitment to practices that reduce, eliminate or prevent pollution at its source, specifically for a new water recycling initiative.



**Water:** Make zero water withdrawals for manufacturing processes  
Use freshwater only for human consumption

**21.7%**

REDUCTION IN FRESHWATER USE SINCE 2019

**8%**

ALTERNATIVE WATER UTILIZED IN WATER SCARCE AREAS

### WATER USE AT OUR FACILITIES

#### Freshwater

Tap Water



Lake Water



River Water



Groundwater



#### Alternative Water

Wastewater (from an offsite location)



Salt Water (oceans and seas)



Rainwater



Ford facility



The Louisville Assembly Plant began implementing a pollution prevention project in 2020 to reuse treated wastewater in the paint pre-treatment process to reduce the volume of wastewater sent from the plant to the Publicly Owned Treatment Works wastewater treatment facility.

During 2022, the Plant avoided the withdrawal of more than 7 million gallons of city water use, which equates to over 32 gallons per vehicle of freshwater avoidance.

**Our CDP A List Achievements**

Ford earned a place on the CDP “A List” for protecting water security again in 2022. We have received an A score rating from CDP for water reduction for eight years in a row and are one of only 107 companies globally to earn such an award for water security. We were also on CDP’s Climate Change “A list” for the fourth straight year. Ford is the only automotive OEM globally to earn a double A in 2022 for Climate Change and Water Security<sup>23</sup>.

**WATER STRATEGY PROGRESSION**



**Version 1**

**v1** Efficiency (external metric)  
Recycle/Reuse (track)

Metric: Incoming water (per unit)  
Tracked: Recycle/reuse (absolute)

**Version 2**

**v1** Efficiency (external metric)  
Recycle/Reuse (track)  
**v2** Alternative Water Source (metric)  
Aspirational Goals:  
– Freshwater for Domestic use  
– Zero water for Manufacturing

Metric: Incoming water (per unit)  
Tracked: Recycle/reuse (absolute)  
% Freshwater

**Version 3**

**v1** Efficiency (external metric)  
Recycle/Reuse (track)  
**v2** Alternative Water Source (metric)  
Aspirational Goals:  
– Freshwater for Domestic use  
– Zero water for Manufacturing  
**v3** – Ecosystem Performance  
– Water Discharge Quality

Metric: Incoming freshwater (absolute)  
Tracked: Recycle/reuse (absolute)  
% freshwater (water stressed)  
Ecosystem Performance  
– Water Discharge Quality

= Aspirational Goal

# Waste Management



**Waste:** Reach true zero waste to landfill across our operations  
Eliminate single-use plastics from our operations by 2030

## 74%

OF OUR MANUFACTURING FACILITIES ARE ZERO WASTE TO LANDFILL

## 91%

OF WASTE GENERATED IN 2022 WAS RECYCLED OR REUSED

## 29.5%

REDUCTION IN GENERAL TRASH ACHIEVED SINCE 2017

▣ Reducing waste has a dual benefit. Not only does it reduce our impact on the planet, but it also optimizes efficiency in our resource-intensive industry.

### We aspire to reach true zero waste to landfill and to eliminate single-use plastics by 2030 across our global operations.

Reducing waste has a dual benefit. Not only does it reduce our impact on the planet, but it also optimizes efficiency in our resource-intensive industry. By reducing or recycling generated waste, we can avoid the landfill, reduce GHG emissions, and generate an additional supply of valuable resources.

#### WASTE STRATEGY RESULTS

In 2017, we launched the second phase of our global waste management strategy which was focused on minimizing waste generated from high-volume streams and managing the waste we generate to avoid landfill disposal. While we fell short on two of the three per vehicle reduction targets, we did achieve absolute reductions of 24% in waste sent to landfill, 51% in waste generation, and 61% in general trash. Disruptions in production due to COVID and chip shortages played a pivotal role in our manufacturing efficiency and therefore our ability to progress toward strategic waste targets. We also overcame several significant waste to energy and recycling facility closures which impacted waste to landfill progress.

Currently, we have 84 zero waste to landfill sites globally. In 2022, Ford facilities around the world sent approximately 18,400 metric tons of waste to landfill, 14% more than in 2021.

All Ford manufacturing plants in China operate with zero waste to landfill (ZWTL). Waste generated in all factories is either recycled or managed for thermal destruction with or without energy recovery instead of being sent to landfills for final disposal. Our European facilities have all achieved ZWTL status, using the same strategies.

It's essential that our plants have the resources needed to collect and manage waste. Our North American manufacturing organization dedicated \$3 million in 2022 to increase collection containers and equipment within plants to help them meet our global waste standard, a minimum set of requirements for the manufacturing plants to successfully pursue our waste-related sustainability targets.

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

- Implementing new technologies and programs that minimize waste
- Standardizing the tracking and sorting of waste to increase recycling and reuse

The next phase of our waste strategy will span from 2023 to 2027 and focus on reducing overall waste generation and improving our overall environmental footprint by recognizing waste reduction opportunities. We will continue to drive waste sent to landfill reductions globally and progress toward our zero waste to landfill goal.

As with the other strategies, we have progressed toward targeting absolute reductions in the waste strategy so that we can more clearly define our impact to the environment and surrounding communities.

#### Eliminating Single-use Plastics

We continue initiatives around the world toward our goal of eliminating single-use plastics. Regional efforts include returnable containers for take-away food in Cologne, Germany and phasing out single-use plastic utensils in all our facilities in U.S. and Canada.

#### Reducing Packaging Impact

Protecting components on their journey to our facilities is essential. Using standardized packaging containers and materials helps to optimize payloads and lower costs. We have agreements with packaging providers in many locations to collect and store containers and to forward them to other suppliers for reuse.

Our focus on packaging begins before a new vehicle is launched. Working with our suppliers we review packaging for components and production parts with a view to reduce environmental impact and increase the use of eco-friendly packaging. Suppliers in North America and Asia Pacific are required to use packaging that has a neutral, if not positive, environmental footprint, achieved by using 100% recycled, renewable or recyclable materials.

#### Reducing End-of-Life Impacts

We proactively review non-dimensional materials such as lubricants and paints within our manufacturing operations. Going beyond applicable regulations, we are developing a timeline to further reduce substances of concern in our facilities, including those that are carcinogenic or environmentally persistent.

► [READ MORE IN THE GRI INDEX](#)

# Biodiversity and Ecosystem Health

**Biodiversity loss and the associated business risks are receiving increased attention. The World Economic Forum identified 'biodiversity loss' as the third most severe risk on a global scale over the next ten years.**

We are committed to developing solutions to preserve biodiversity and restore ecosystems across our facilities and the surrounding communities through programs like the Ford Wildlife Foundation (FWF) and the Bronco Wild Fund.

The FWF is making important contributions to biodiversity, environmental conservation and awareness through its support of 26 leading conservation organizations across South Africa and in Mozambique.

By donating new locally built Ford Ranger Double Cab 4x4s to its conservation partners, FWF is providing crucial mobility for the teams to implement their wide-ranging environmental projects and helping them protect threatened species and ensure the rich biodiversity of the region. In addition to supporting the annual United Nations World Environment Day, this effort reinforces Ford's commitment to care for each other.

Ford's Bronco Wild Fund is dedicated to building a legacy of access, preservation and stewardship from the ground up. Its mission is rooted in an unwavering and substantial pledge from Ford to protect natural resources and the environment.

The Bronco Wild Fund is teaming up with like-minded collaborators to provide grants, scholarships, contributions and an extensive dealer network to keep the great outdoors great. A portion of the profits from every Bronco sold goes directly to Bronco Wild Fund collaborator initiatives.

As we work to minimize our impact on the planet, we can also provide positive benefits to the local environment as well as neighboring communities.

A "Positive Performance" methodology measures the performance of a local ecosystem to establish science-based aspirational targets. If we can operate our sites to meet or exceed our local ecosystem performance, we consider that to be positive.

Measurements of an ecosystem can include carbon capture rates, water infiltration volume, biodiversity support, soil generation, etc.

The process also identifies design strategies that can help close the performance gap between the local ecosystem and the site. Strategies can include nature inspired solutions.

### Supply Chain Biodiversity

We expect our suppliers to preserve biodiversity as well. Revisions to the "Automotive Industry Guiding Principles to Enhance Sustainability Performance in the Supply Chain" include sections on biodiversity, land use and deforestation.





# The Road to a More Inclusive and Equitable Society

People

# Overview

In the transition to a climate-resilient future, we will drive innovation and sustainable growth, support our workforce and local communities, and ensure that everything we make – or that others make for us – is produced lawfully and with respect for human rights. We continue our work toward gender and racial equality and to protect the rights of all people. We remain committed to partnering with communities and expanding access to critical resources and opportunities that help move people forward. We support a just transition and are working toward a more equitable transition to EVs.



### We prioritize health and safety

We are committed to delivering the highest level of safety, health and wellbeing to our customers, employees and the communities where we live, work and serve.

### We are dedicated to creating a culture of inclusion

We want our people to have the sense that they are valued, appreciated, respected, and can bring their true selves to work – a culture that empowers our people to transform our business.

### We are focused on protecting and respecting human rights

We are committed to respecting human rights in everything we do. Our commitment begins within our company and extends to our suppliers, and throughout the value chain.

### We support a Just Transition

As the future of work continues to evolve, we are supporting a just transition in our company and in the communities in which we operate.

### We are passionate about partnering with communities

The Ford Motor Company Fund partners with communities globally to ensure people have access to equitable opportunities to progress in life.

### Sustainable Development Goals

We are contributing to the following UN Sustainable Development Goals (SDGs) through actions outlined in this chapter:



## OUR SUSTAINABILITY ASPIRATIONS



**DEI:** Create a truly diverse culture where everyone feels like they belong



**Safety:** Work toward a future that is free from vehicle crashes and workplace injuries



**Human Rights:** Source only raw materials that are responsibly produced

# Human Capital and Diversity, Equity and Inclusion



**DEI:** Create a truly diverse culture where everyone feels like they belong



**“When it comes to employee engagement, ERGs are a superpower. Our ERG leaders recognize the importance of intersectionality and collaboration to elevate a healthy culture for all employees. The ERGs partner with us to ensure we listen deeply to our employees, meet them where they are, and inspire action.”**

**AMAL BERRY, DIRECTOR, GLOBAL DIVERSITY, EQUITY, AND INCLUSION OFFICE**

**We want people to thrive. That’s why we are dedicated to creating a culture of inclusion where our team members have the sense that they are valued, respected, and can bring their true selves to work – a culture that empowers our people to transform our business.**

[▶ READ MORE ABOUT OUR PROGRESS ON THIS SALIENT HUMAN RIGHTS ISSUE IN OUR HUMAN RIGHTS PROGRESS REPORT](#)

We are continuously striving to enhance our culture as we work to make Ford Motor Company the world's most trusted company in delivering smart vehicles for a smart world. Our efforts are guided by our purpose. We are leveraging them to forge a path to our future as we strive for excellence in all we do, shift our focus to the most important work, and collaborate on our most difficult shared challenges.

## EMPLOYEE ENGAGEMENT

Employee engagement is the thread that weaves throughout the company as we transform our business to meet our electric future. It is a catalyst for our success. A multi-channel open dialogue keeps our employees informed, engaged and vested in the company’s success. Our regular cadence of communications includes monthly global Town Halls, our intranet and websites, corporate publications and reports, social media, webcasts and executive Q&A sessions with senior management, labor-management committee meetings and Employee Resource Group (ERG) initiatives. Together they provide opportunities to frequently share information and business updates.

Understanding our employees’ concerns is also critical. Regular employee sentiment polls enable us to keep our finger on the pulse of employee engagement, identify trends and take action as needed. For example, in 2022, 82% of respondents reported feeling like they belong at Ford and can be themselves. Also, 82% of respondents reported that leadership shows diversity is important through its actions.

Many of our employees are passionate about social issues. Ford’s Social Action Council is a cross-functional team of Ford leaders that assesses social issues for impact and relevance to Ford’s business and stakeholders. The Social Action Council applies a consistent decision-making framework to develop and present engagement recommendations to the Company’s executive leaders and Board of Directors based on Ford’s purpose, business and capacity to make an impact.

## Employee Resource Groups

Sponsored by our senior leaders and open to all employees, for more than 40 years ERGs have provided support, outreach, mentoring, and development to all employees. Our ERGs continue to positively impact the business as they host a range of professional, educational, and cultural events as well as supporting our diversity-related efforts in recruitment and community outreach.

For example, Ford Empowering Diverse Abilities (FEDA) ERG is working with leadership on strategic planning around accessibility. Ford’s Accessibility Strategy is solving the problem of Industry-wide lack of understanding and consideration of a diverse range of human abilities. Ford is closing the gap of choices by planning features and accessories needed for customers with disabilities to be able to drive safely.

ERGs also have an impact on our benefits package and our policies. The Women of Ford and Ford Pride ERGs, along with other interested employees, worked with our U.S. Benefits team to develop enhanced family benefits. And in partnership with the Pride ERG, we updated our Transgender, Gender Non-conforming & Non-binary in the Workplace Policies and Guidelines.

Our ERGs continue to evolve in step with our workforce. In 2022, we launched The Ford Indigenous Peoples Network, our 12th global ERG, which aims to support employees who share the heritage or identify with Indigenous People.

Our ERGs are receiving external recognition as well. Ford Hispanic & Latino Network (FHLN) has been recognized as a Top 15 ERG by LATINA Style Magazine in 2022. “As one of the longest standing ERGs at Ford, for the past 30 years, FHLN has been a go-to resource for Latino matters, raising cultural awareness and infusing Hispanic and Latino culture into the workplace,” the magazine notes.



### ATTRACTING AND KEEPING TALENT

We are in a global war for talent. As technology infuses our business, we are finding that many of the skill sets we need are industry agnostic.

Great people will come to Ford – and stay with the company – when they feel valued, included and have the tools to advance their careers and make an impact. At Ford, employees have the opportunity to demonstrate excellence, focus on value added work, and work together to solve our most important and most difficult challenges.

We leverage inclusive hiring practices, ongoing learning and development programs, flexible work options, and enhanced family benefits to make Ford an employer of choice.

As we seek the best and the brightest from all over the globe, many of our workforce development objectives and initiatives are focused on reaching underserved communities and helping underserved groups find pathways to Ford. This is especially important as we consider the transition to EVs.



### Tomorrow's Talent

Keeping the talent pipeline filled is critical to our success. In addition to recruiting a roster of incredible tech talent from some of the world's best technology companies, we are committed to developing and nurturing the next generation of talent. Our new Ford Atlanta Research & Innovation Center (FARIC) is a great example of our efforts. Aside from serving as an innovation hub and delivering software solutions, the FARIC team will focus on increasing Black, Hispanic, and female representation in software engineering and high technology careers. In addition to leveraging its proximity to more than 10 historically Black colleges and universities (HBCUs) FARIC is also partnering with targeted programs at HBCUs and Hispanic serving institutions (HSIs).

Across the U.S., we participate in a multitude of diverse career events with various organizations, including Out in Science, Technology, Engineering, and Mathematics; Society of Women Engineers; National Society of Black Engineers and the Society for Hispanic Professional Engineers, to meet candidates where they are.

“I’m very proud of the outstanding job Ford has done to not only actively recruit, through programs such as SkillBridge and others, qualified Veterans to come to Ford, but also in taking care of the Veterans that already work here by providing a space for our Veterans to come together to learn and grow together.”

SCOTT RUMFIELD, PRODUCT LINE MANAGER, GDIA DATA TECH NA, PRESIDENT, FORD VET NG

We continue to use online platforms and are strategically targeting universities and colleges including HBCUs and HSIs to fill specific skill sets.

### Just Transition

As we take lead of the electric vehicle revolution, labor and employment markets will continue to require new skills, new ideas and new habits of mind. Ford supports a just transition by preparing our workforce and local communities for the transition to EVs. Ford is committed to providing hourly and salaried employees the opportunity to upskill and reskill with supportive training programs both internally and with the help of community partners. We are committed to the principles of lifelong learning, embracing a growth mindset and career development.

► [READ MORE IN THE HUMAN RIGHTS PROGRESS REPORT](#)



### **INVESTING IN THE NEXT GENERATION:**

Ford is investing \$525 million in the U.S. to train future auto technicians. With a portion of this funding, we are expanding the curriculum and adding locations to our premier training program designed to add more specially trained automotive technicians to a fast-growing field that now includes electric vehicles. The initiative, known as Automotive Student Service Educational Training (ASSET), is a collaboration between Ford, Ford and Lincoln dealers and select community colleges and technical schools. The program provides Ford and Lincoln dealerships and their customers with technicians highly trained in Ford service technologies and diagnostic and repair methods. To better serve Ford's EV customers, ASSET is integrating new learning for electric vehicles including high voltage safety systems, hybrid vehicle and EV component diagnostics and repair, and an introductory course on high voltage battery service.

We are also working with primary and secondary schools, colleges and universities through initiatives like our STEM program.

► [READ MORE IN THE COMMUNITY ENGAGEMENT SECTION ON P.85](#)

### **Continuous Learning and Development**

The opportunity for continuous learning is a magnet for talent. And as part of our Just Transition, upskilling and reskilling our employees will keep them, and the company, competitive.

Our leadership development program is focused on building people leader capabilities to support the refounding of the business.

Leadership+ is a set of experiences developed centrally and deployed locally to enable consistent upskilling while addressing unique regional needs. Unlike traditional programs, these experiences center around conversation to make sense of and process something new and learn from the experience of others. The goals for these experiences are both learning and curiosity; our leaders leave with key concepts and a desire to extend the conversation with their teams.

Ford is committed to modernizing our approach to learning and investing in more online solutions. Our learning opportunities are now more accessible, and we offer a self-guided learning experience platform that further enables employees to take ownership of their professional development.

### **LEARNING STRATEGIES**

Our learning strategy is designed to prepare Ford for today and the future and focuses on four key actions:

- Socialize learning, enabling every employee to be a learner and a teacher
- Create skill-based academies to accelerate critical skill development
- Modernize our learning approaches, to reinforce lifelong learning, and enable people to learn anytime and anywhere
- Introduce tools that know when to nudge learners, track progress, and acknowledge their achievements

We continue to evolve our learning strategy to address the new ways employees are working – onsite, remote and hybrid – offering learning options that fit each model. We are also modernizing our learning design and tools beyond traditional class-based approaches to embrace social learning and learning that is “bite-size” and in the flow of work. To align with how employees learn and connect outside of work, we are building platforms that feel more like YouTube and other familiar social media platforms.

Workforce development is a key consideration for the Michigan Central Project, FARIC and several other educational projects throughout the company. We will continue to work closely with the Ford Fund and the Workforce Team in Manufacturing.

### **Inclusive Leadership**

Globally, we continue to encourage all People Leaders to become certified Inclusive Leaders. The goal of the Inclusive Leader Certification Experience is to enable all leaders to cultivate inclusion and build better teams. Certification is achieved through a blended learning approach. Participants will reflect on their inclusive leadership and establish personal goals, learn about inclusive leadership and leverage feedback and learnings to help them shift the way they lead to become even more inclusive. In North America, all People Leaders are encouraged to participate in Men as Allies workshops. This live, facilitator-led virtual workshop focuses on empowering participants to take practical approaches and actions toward male allyship and gender equity.

### **EMPLOYEE BENEFITS**

Today's workforce values flexibility and we are committed to meeting our employees' needs while balancing the needs of the business. At Ford, the purpose of work defines where that work is done. We take a consistent approach to flexible work patterns and arrangements globally. We maintain a hybrid work model for our non-place-dependent workforce and have developed guidelines and tools to support those who choose this path.

Job sharing is available to those who want to work reduced hours. Employees in North America, Europe, and India who are interested in job sharing can create a profile on our new JobShare Connect app, search for matches and reach out to potential partners. The app was developed by two Ford employees, both members of the Women of Ford ERG, who recognized the need for a more structured search format that gives candidates flexibility and wanted to address the difficulties of finding a potential job share partner in such a large corporation.

**Family Benefits**

Beginning in 2023, we are bringing to life new family-building benefits that cater to every unique journey to parenthood for our U.S. salaried employees. The new benefits offer reproductive assistance/fertility treatments, surrogacy reimbursement, and include an expansion of the current adoption reimbursement benefit. They are designed to help alleviate the financial burden and provide support to make the process easier to understand and navigate.

**DIVERSITY, EQUITY AND INCLUSION**

For more than a century, Ford has been a pioneer in providing opportunity to people regardless of race, gender, ability, sexual orientation and background. We view this less with pride than the sober realization that we must go further to create a company where our differences are truly valued and every team member can bring their whole selves to work.

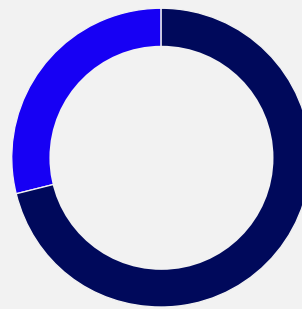
Creating a culture of inclusion isn't just the right thing to do, it's also the smart thing. Diversity creates innovation. Building equity into everything we do will help us achieve our business goals.

We are working to embed our Diversity, Equity and Inclusion strategies into every part of our company to unleash our innovative workforce, compete in the marketplace and serve the community. Specifically:

- We are committed to finding, hiring, developing and retaining great talent that is inclusive of everyone in the communities that we serve, so we design and market the right products, services and experiences.
- We hold ourselves accountable for making progress at all levels of the company.
- We are committed to structural and systemic equity at every stage of the employee journey from recruiting through exit.
- We continue to invest in communities and diverse supplier relationships around the globe.
- Every employee is expected to support each other, to learn about people different than themselves and disrupt bias in everyday behaviors and decisions.
- We recognize the incredible contributions of our ERGs and Ford Advocates for Belonging (FAB) Councils in serving the business, their members and communities.

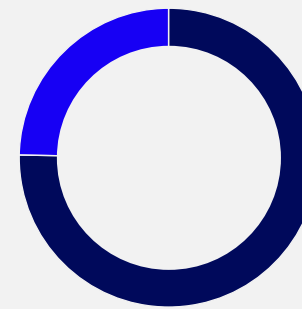
**2022 GENDER AND RACE/ETHNICITY METRICS\*****OF OUR GLOBAL SALARIED WORKFORCE:**

**71.1%**  
ARE MEN  
(2021: 71.8%)



**28.8%**  
ARE WOMEN  
(2021: 28.1%)

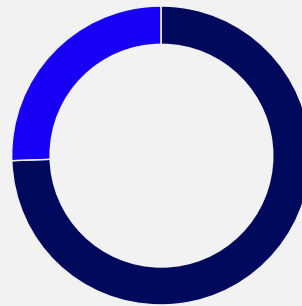
**75.5%**  
OF SENIOR MANAGERS  
ARE MEN  
(2021: 77.5%)



**24.5%**  
OF SENIOR MANAGERS  
ARE WOMEN  
(2021: 22.5%)

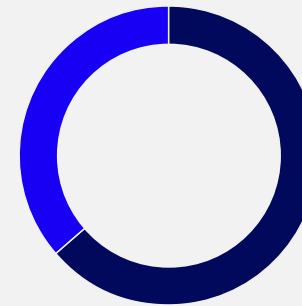
**OF OUR U.S. EMPLOYEES (HOURLY AND SALARIED):**

**74.6%**  
ARE MEN  
(2021: 75.0%)



**25.3%**  
ARE WOMEN  
(2021: 25.0%)

**63.5%**  
ARE WHITE  
(2021: 64.6%)



**36.2%**  
ARE MEMBERS OF  
MINORITY GROUPS  
(2021: 34.9%)

**OF WHICH:**

**23.8%** ARE AFRICAN AMERICAN **5.9%** ARE ASIAN  
**4.4%** ARE HISPANIC/LATINO **2.0%** ARE OTHER MINORITIES

\*Not all values add up to 100% as there is a small percentage of unknown gender and ethnicity data that is not included

**OF OUR 14 BOARD DIRECTORS:**

**4**

ARE WOMEN

**2**

IDENTIFY THEMSELVES AS MEMBERS OF MINORITY GROUPS

**OF OUR 39 CORPORATE OFFICERS:**

**7**

ARE WOMEN

**7**

IDENTIFY THEMSELVES AS MEMBERS OF MINORITY GROUPS



“The Level Up sponsorship program helped open the door to communication with folks outside my specific manufacturing contacts listing. Engaging in discussions with talented peers and senior leaders has led to growing my professional network and helped me recognize the value of my contribution.”

DUAN'TE ANDERSON, ASSISTANT PLANT MANAGER,  
SHARONVILLE TRANSMISSION PLANT

#### Listening Sessions

Listening sessions are part of Ford’s DEI effort to move our culture and company forward, together. The confidential sessions provide a safe space for employees to have courageous conversations about their experience at Ford. The sessions are intended to build empathy, deepen understanding of the employee experience, and spark changes to behaviors and policies that will lead to a more equitable workplace. These sessions provide valuable insight into universal themes across groups, and well as themes unique to specific demographics.

Our Day of Understanding Listening Session series provided employees from an affinity group the opportunity to share their Ford experience with one senior leader and one host in a small group setting. The leader’s role is to practice empathetic listening to gain insights in the lived experiences of a demographic different from their own.

#### Listening, Learning, Celebrating

A robust slate of programs and events in 2022 brought Ford employees together to listen to each other, hear different perspectives and celebrate our differences – and our commonalities. Our DEI learning strategy includes:

- Learning workshops to foster male allyship, leadership training specifically designed to address the needs of women in the workplace, Racial Equity Interactive Series and a variety of DEI related online learning content
- Employee recognition including the Global DEI Art Challenge and Global DEI Awards
- Experiential events including International Women’s Day Celebration, Day of Understanding, Global DEI Week and Chinese Lunar New Year Celebration



#### JUNETEENTH

Ford continues to honor Juneteenth as a day of celebration that recognizes freedom for all Americans. As we celebrated Juneteenth 2022, our U.S. employees demonstrated our commitment to learning and caring for each other by participating in guided discussions with their team and expressing solidarity by wearing the colors of the Juneteenth flag.

#### Measuring Progress

At Ford, we work to celebrate our differences and create an environment where our diverse team members feel like they belong. And we hold ourselves accountable. In 2021, each corporate officer had a DEI objective, and in 2022 this was expanded to all salaried employees globally.

Since we created aspirational goals in 2020 to increase representation of global women and U.S. minorities at the senior leader level and above, we have made progress year over year. We are seeing more diversity in senior leadership roles in hiring and retention.

For the fifth consecutive year, Ford has been recognized as a leader by Bloomberg Gender Equality Index (GEI) for continuous progress in gender representation amongst other categories impacting women. We are proud that by taking focused actions, we improved our leadership and talent category score in GEI by over 20% from 2021.

The need to have complete, accurate, and current global data about our workforce is critical to informing benefits planning as well as ensuring we build equity into our systems, processes, and policies. With that in mind, we are introducing a voluntary company-wide Self-ID Initiative designed to gather more complete and updated employee demographic information. New options are available including gender identity beyond binary male/female, sexual orientation, personal pronouns and in the U.S. the addition of Middle Eastern/North African/Arab American race.

**Equal Employment Opportunity**

Our EEO-1 report provides a snapshot of our U.S. demographics as of year-end 2022, based on occupational categories prescribed by the federal government that aggregate jobs with widely varying skill requirements. Approximately 95% of all Ford Motor Company hourly and salaried positions fall into just four of the 10 categories. The usefulness of this data for measuring diversity success, and for making direct comparisons to other companies or other industries with different job structures, is therefore extremely limited.

To address these shortcomings, Ford has developed a more robust supplemental report that disaggregates technical jobs in fields such as engineering and information technology, which pose recruiting challenges that are very distinct from non-technical roles. The supplemental report also provides more nuanced breakdowns of diversity at various managerial levels.

We are committed to equal pay for equal work. Employee compensation in each market should be fair and equitable, irrespective of gender, race, or similar personal characteristics. Equal pay for equal work applies to all forms of pay, including base salary, incentives, bonuses, and other forms of compensation.

In 2022, we cascaded 68 Affirmative Action Plans in the U.S. for all manufacturing locations and skill teams to develop action plans.

► [READ MORE IN THE EEO-1 REPORT AND THE SUPPLEMENTAL REPORT](#)

**Global DEI Efforts**

The Global DEI Office aligns with our regional DEI leads to ensure the corporate DEI strategy is implemented and revised, if needed, in the regions to meet the needs of our colleagues across the globe. Our intentional method allows our global markets to ensure inclusivity for all teammates and provides a more catered approach to the tools and resources needed to create a sense of inclusion for all.

For example, our Hermosillo Assembly Plant Walking the DEI Path Team organized a multidisciplinary team to ensure people with disabilities were added to our workforce, integrating people with motor and hearing disabilities within the recruitment process, and organizing Mexican Sign Language and awareness workshops.

In 2022, Ford of Europe has focused on increasing awareness, engagement and transparency around DEI at all levels. We launched our first ever DEI Hub for employees for learning and discussion; published a DEI People Leader Playbook and Gender DEI Analytics Dashboard; amplified and celebrated our ERGs through events; and provided a safe space for employees to share their lived experiences with our senior leaders through Listening sessions. Through our #ToughTalks and “Very Gay Raptor” campaign we tackled issues related to the LGBTQ+ community.

We also created several campaigns to support Women of Ford and launched the JobShare Connect application to support our DEI and flexible work culture.

Ford South America is demonstrating its commitment to diversity through succession planning, leadership development, recruitment, pay equity, and external agreements. Internally in South America, women represent 70% of our leadership position succession planning; and to accelerate leadership development, 60 women participated in job shadowing programs in 2022. As we recruit new talent, Ford South America is increasing our diverse talent pipeline; 65% of new hires in South America were diverse candidates. We are also working to ensure compensation equity between genders and are able to sustain above 90% in all levels. We have signed five external agreements and commitments that reinforce our commitment to diversity.

**AWARDS & ACCOLADES**

Our DEI work continues to receive recognition around the world.

**2022 DEI Recognition:****Global**

- Bloomberg Gender Equality Index (fifth year in a row)
- Disability Equality Index – 100% Top Scorer, Best Places to Work for Disability Inclusion (sixth consecutive year)

**Canada**

- Top Employer for Young People

**China**

- Selected as Leading DEI Best Practice for by sHero (second consecutive year)

**India**

- Best Companies to Work For

**Mexico**

- Human Rights Campaign: Best places to work for LGBTQ+ Equity

**U.K.**

- Ford of Britain included in Glassdoor’s 50 Best Places to Work in 2022 based on Employee Reviews
- Autocar’s Top 100 Women in Auto Industry honored 15 Ford women

**U.S.**

- 2022 Military Times Best for Vets – Employers List
- Top 50 Best Companies for Latinas to Work for in the U.S. by LATINA Style
- Five-star Supplier Diversity ranking by the Hispanic Association of Corporate Responsibility (HARC) – Corporate Inclusion Index
- Corporation of the Year by Michigan Minority Supplier Development Council



**DEI in Dealerships**

Our customers are a diverse group with different backgrounds, cultures, and perspectives. It's important that our dealerships are inclusive of everyone in the communities they serve. By employing people of different backgrounds and perspectives, dealers can create a space where every customer feels welcomed and is treated with dignity and respect.

To help incorporate inclusivity into their operations and help their employees build cultural competence, dealers are encouraged to attend Ford Guest Experience (FGE) Immersion. FGE includes a DEI breakout session where dealers work with their peers to share and brainstorm ways in which they can integrate DEI concepts into their dealership culture.

FGE participants are implementing ideas such as inviting employees from throughout the dealership to provide feedback and share different perspectives at leadership meetings and expanding their recruiting practices to include more diverse applicants.



Developing the next generation of talent is also a focus for our dealers. Our new Sponsor Our Students program works with dealers to offer opportunities for students interested in meaningful careers as automotive technicians. In 2022, more than 1,000 Ford and Lincoln dealers offered 3,600+ students a unique opportunity for work-based learning within their service department, including the support of a mentor.

**Supplier Diversity and Inclusion**

Supporting and developing a diverse supply chain contributes to strong and sustainable businesses. Through our advocacy and relationship building efforts internally and externally, we are making a positive impact on our bottom line and within the communities where our suppliers operate.

In 2022, we sourced \$10.78 billion in goods and services with diverse-owned businesses. We are working to further expand our spend by including diverse supplier sourcing and development metrics into our corporate scorecards and dashboards. In addition, we are incorporating small and diverse businesses into our sourcing plan for Ford's \$11.4 billion BlueOval City and Blue Oval SK development projects in Tennessee and Kentucky. These factories will enhance Ford's EV vehicle and battery production and provide sourcing opportunities for several diverse suppliers.

Rapidly changing technologies are creating incredible opportunities for growth with diverse suppliers who are able to identify and understand the traditional industry disruptors, grasp the concept of Diversity & Inclusion and develop a forward-looking strategy and plan. We remain committed to support, develop, grow and promote our diverse suppliers through programs including Widening the Inclusion Network, Ford/Great Lakes Women's Business Council, MentorWE, Michigan Minority Supplier Development Council's (MMSDC) Collaborative Growth Initiative, Ford specific Black Supplier Development Program, and MMSDC UniTier Reporting.

We also help form strategic alliances and joint ventures between diverse and non-diverse suppliers that enable diverse business owners to grow and develop. Diverse suppliers not only increase capacity in areas of expertise, but also acquire new technical and manufacturing capabilities. We intend to continue this practice as we embrace our future of mobility and connected vehicles.

► [READ MORE ABOUT BLUEOVAL CITY AND BLUE OVAL SK ON P.26](#)

In 2022, Ford purchased goods and services worth:

**\$8.01<sub>B</sub>**

FROM MINORITY-OWNED SUPPLIERS

**\$1.79<sub>B</sub>**

FROM WOMEN-OWNED BUSINESSES

**\$0.15<sub>B</sub>**

FROM VETERAN-OWNED COMPANIES

**\$4.10<sub>B</sub>**

FROM SMALL BUSINESSES

## Human Capital and Diversity, Equity and Inclusion – continued

Ford Motor Company is proud to be recognized as industry leader for our Supplier Diversity & Inclusion efforts. Our program has been identified as an industry benchmark by several renowned certifying organizations and advocacy partners. Inclusion is a part of our fabric in all aspects of the business and we are proud of the external recognition and acknowledgement received in 2022.

### Supplier Diversity and Inclusion Awards 2022:

- WEConnect International, Top 10 Global Champions in Supplier Diversity. We were the only automotive company to receive this award
- Women’s Business Enterprise National Council (WBENC), Top Corporations – Resiliency Edition
- Disability:IN, DEI Index – Score of 100
- Great Lakes Women’s Business Council (GLWBC), Excellence in Supplier Diversity
- Michigan Minority Supplier Development Council (MMSDC), Corporation of the Year
- National Minority Supplier Development Council (NMSDC), Forefront 50
- Canadian Aboriginal and Minority Supplier Council (CAMSC), Advocate of the Year
- Hispanic Association of Corporate Responsibility, Procurement/Supplier Diversity 5 Star Rating

### Looking Ahead

We have taken a thoughtful approach to create the structures and support necessary to embed DEI throughout our company and ensure that our new expected behaviors enable a culture of inclusion. Thanks to strong CEO and senior leadership support and a passionate employee base, we are poised to expand an inclusive culture that promotes innovation, creativity and psychological safety. As we look ahead to 2023 and beyond, it’s important that everyone supporting Ford understands that the business case for DEI is critical for our growth.

Working together, we will create an environment where Operations takes ownership for and drives accountability for DEI. Representation will grow throughout the pipeline as equity is built through the candidate and employee journey. Employees, candidates and investors will also grow in confidence and understanding of our DEI data and plans.



### STRENGTHENING OUR HOURLY WORKFORCE

We are America’s No. 1 employer of hourly autoworkers and we are building on that legacy by adding jobs and investment.

We are investing \$3.7 billion and adding more than 6,200 new union manufacturing jobs in Michigan, Ohio and Missouri. We are also converting nearly 3,000 temporary UAW-Ford workers to permanent full-time status and providing all hourly employees healthcare benefits on the first day of employment.

These actions – which came more than a year ahead of 2023 contract negotiations – are part of our Ford+ growth strategy and include plans for an all-new global Mustang coupe and Ranger pickup for North America, as well as an all-new electric commercial vehicle for Ford Pro customers.

In Kentucky, we are investing \$700 million and adding 500 new manufacturing jobs to support vehicle production, including for the all-new 2023 Ford F-Series Super Duty® truck. Ford is the largest vehicle producer in the Bluegrass State and one of the largest employers in Kentucky, with more than 12,000 people working across two assembly plants in Louisville.

# \$3.7B

INVESTMENT IN MICHIGAN, OHIO AND MISSOURI

# 6,200

NEW UNION MANUFACTURING JOBS ADDED IN MICHIGAN, OHIO AND MISSOURI

# Employee Health, Safety and Wellbeing



**Safety:** Work toward a future that is free from vehicle crashes and workplace injuries

**At Ford Motor Company, we put people first and create a culture that is focused on caring for each other. We believe in working together and we face challenges head-on.**

► [READ MORE ABOUT OUR PROGRESS ON THIS SALIENT HUMAN RIGHTS ISSUE IN OUR HUMAN RIGHTS PROGRESS REPORT](#)

That's why we are dedicated to ensuring the physical safety and mental health and wellbeing of our employees, which, in turn, has a direct impact on their happiness, comfort and morale. Embracing and advancing a culture of awareness, education and training also helps contribute to an engaged and motivated workforce.

Many of our internal standards go beyond applicable laws and regulations to meet our commitment to our global workforce. The safety, health, and wellbeing of our people comes first in our day-to-day operations. Not only is it fundamental to our purpose, but it also makes good business sense.

## ENSURING A SAFE AND HEALTHY WORK ENVIRONMENT

Promoting safety, health and wellbeing permeates our culture and cascades through the organization. Employees at every level of the company are responsible for the company's overall safety initiatives and performance.

Our [Code of Conduct](#) provides the framework for our safety efforts and holds us accountable as it calls upon all employees to:

- Take personal responsibility for knowing and following the safety guidelines that apply to their roles and locations
- Take health and safety training seriously, and follow all safety-related policies and procedures
- Practice safe driving habits
- Never work or drive while impaired by drugs or alcohol
- Understand that illegal drugs, controlled substances, and unauthorized alcohol have no place at work

All Ford team members are expected to participate in all required safety training, understand and follow our policies, processes, and requirements; wear or use all required personal protective equipment; never take shortcuts or avoid required safety practices; and speak up immediately if they see unsafe behavior or hazardous conditions.



When it comes to personal health, practicing self-care is important. We encourage our employees to understand that when they are not well, it is sometimes better to stay home and avoid infecting others.

## **Occupational Health and Safety**

Our Health and Safety Commitment, "Our most valuable asset is our people. There can be no compromise" forms the basis of our safety culture. It applies to all employees, contractors, and visitors performing work at our locations globally.

Safety performance is managed by Senior Leadership through Plant Operation Reviews (POR), Manufacturing Safety Councils (MSC), and Safety Process Review Board meetings (SPRB).

Unions representing production workers, skilled trades, and engineers play a crucial role in improving health and safety for our employees and workplaces. We are committed to supporting these unions and collective bargaining to ensure the health and safety of our union represented employees and locations.

Designated members of management interact with local, national, and global union representatives to foster the open communications and collaboration needed to work through contractual requirements. We provide UAW involvement in the facility Safety Operating System (SOS) self-assessment and continue to address issues as they arise.

Together with robust standards and procedures, dedicated resources in our manufacturing engineering teams assure safe conditions and a safe workplace at every Ford facility. Our engineered systems are designed and installed to provide safe operations for our employees.

As we build new plants and update existing facilities, safety for high-risk construction contractors working on Ford projects is also a priority. In addition to our standard safety procedures, we held our Annual Construction Contractor Safety Summit in May 2022, with a focus on injury prevention and other topics important to our contractors. More than 45 construction companies participated.

**SAFETY IN BATTERY MANUFACTURING**

Safety is a top priority as work continues around the production of our EVs at new sites and existing locations. The Battery Electric Safety Core Team continues to share knowledge with engineering, product development and manufacturing locations. This team reviews training requirements, emergency response procedures, best practices, and internal and external incidents to better understand and prepare our workforce. Our medical and Industrial Hygiene and Toxicology teams are supporting new processes globally and reviewing new materials that will be used in the processes for manufacturing battery electric vehicles globally, to ensure that we anticipate, identify, analyze and measure potential occupational exposures and monitor our employees as needed.

**PROACTIVE APPROACH TO EMERGENCY RESPONSE**

In order to respond to natural disasters and other emergency situations, it's imperative to have a comprehensive plan in place – and test it. In 2022, we enacted an emergency response drill that simulated an F1 tornado hitting our transmission plant in Sharonville, Ohio. Our emergency response team (ERT) members took caring for each other to the next level as they coordinated with municipal agencies for the drill. The drill was documented and reviewed to evaluate our ERT's readiness, effectiveness and skill sets when addressing a variety of emergency scenarios. Our team will use this information to continuously improve our emergency response strategies.

### **Safety Operating System**

Our Safety Operating System (SOS) helps to ensure the work environment within our facilities is safe for our employees and meets or exceeds all regulatory and Company requirements.

This internal tool validates each global manufacturing facility's capability and adherence to meet our safety requirements. The SOS is designed to prevent and reduce incidents through the implementation of different elements such as incident investigation and analysis, training, risk assessment and emergency preparedness.

We utilize the SOS to continuously monitor and improve workplace safety. Safety performance is measured with leading and lagging indicators. The leading indicator, Global Corrective Action Completion Percentage, ensures that items are completed in a timely manner to prevent recurrence of a similar event. The lagging indicator is Global Lost-Time Case Rate. In 2022, our Global Lost-Time Case Rate was 0.39.

In 2021, the SOS was integrated with an SOS dashboard created by our Global Data Insight and Analytics (GDIA) team which provides global, regional, manufacturing director, and plant specific self-assessment results. This tool has simplified data review by allowing us to quickly identify issues by location, region, or globally to ensure allocation of resources.

The SOS operates in conjunction with the Safe Observation Index, which ensures our employees are working safely, and Pre-Task Analysis, which identifies work hazards and mitigation techniques.

We continue to utilize the Global Event Reporting Tool (GERT), which enables us to quickly notify locations of a significant event which may affect their operations. Together with the Corrective Action Issuance process, it provides a forum for Ford to communicate significant incidents when they occur, and then proactively provide instruction and guidance to our facilities through Immediate Corrective Actions and Permanent Corrective Actions. These corrective actions require facilities to make changes and improvements, and implement controls to prevent recurrence of these significant incidents.

In Mexico, we are evaluating an internally developed safety process to further advance the SOS system. The Ford Mexico Safety 4.0 modernization strategy embraces technology to comply with SOS procedures and regulatory requirements as it tracks safety metrics.

### **Safety Training**

As we work to achieve a future that is free from workplace injuries, safety training plays an essential role. Our safety training programs are best in class in the automotive industry. Our safety training matrix lists all safety topics, the frequency for each training course, the personnel that are required to complete training, and who manages the training and training format.

In 2022, we streamlined the Job Safety Analysis instruction process to improve operator knowledge of workstation hazards.

We conducted regular communications and promotions on key safety issues to promote occupational health and safety. We also shared safety best practices via multi-industry groups, within and outside the automotive sector, and collaborated to address common issues.

### **COVID-19 Response**

Our medical team continues to work with Safety, HR, and Labor Affairs to ensure that we adapt and revise our processes and policies as the impact of the COVID-19 pandemic changes with time. During 2022, we removed many restrictions in most locations globally while maintaining compliance with local and national requirements, resulting in the transition of non-place-dependent team members to onsite or hybrid work. In this way, we supported Ford's evolution of work while maintaining a safe and healthy workplace for all team members. As the global situation evolves, we are supporting our team members in real time, to ensure their wellbeing and continued access to updated medical information.

### **Our Safety Record**

Our focus on identifying potentially fatal events and high-potential incidents involving our employees and contractors globally continues. When these incidents do occur, global corrective actions are initiated and tracked to ensure that the identified causal factors are addressed. These corrective actions are tracked weekly to ensure timely completion.

Our safety efforts have reduced these types of events. However, in 2022 we did experience two fatalities – both in our joint venture operations. Each loss of life is unacceptable. Consequently, cross-functional teams worked extensively to identify and implement controls to prevent recurrence of fatal hazards.

The interaction between wellbeing and employee engagement is a powerful one. Holistically healthy employees are typically more likely to be happy and productive and more likely to remain with a company. That's why we are building employee engagement by providing relevant, timely and holistic wellbeing resources.

**Human Centered Design for Health, Safety and Wellness**

Human-centered design can transform the auto industry's approach to manufacturing. We have leveraged past learnings and conducted new research to formulate the following five key priorities to address the occupational demands specific to manufacturing.

**Health Equity**

Everyone has a fair and just opportunity to be as healthy as possible.

**Learning and Growth**

Encourage exploration and development of soft skills and lifelong learning.

**Engagement and Choice**

Empower choice of how to work, rest and play when possible and appropriate.

**Culture and Understanding**

Advocate work-life integration and understanding of individual differences.

**Environmental Impact**

Align our operations to our organizational values.

Through these priorities we aim to improve the working conditions and health of our essential workers. By focusing on environmental stewardship and social equity, we can lead the transformation of the industry's approach to manufacturing.

**WELLBEING**

The interaction between wellbeing and employee engagement is a powerful one. Holistically healthy employees are typically more likely to be satisfied with their job, more productive and more likely to remain with a company. That's why we are building employee engagement by providing relevant, timely and holistic wellbeing resources.

We remain committed to advancing a culture of wellbeing, which encompasses the financial, social, mental, emotional, physical, and professional needs of our employees. We understand that in order to stay Ford Tough it is imperative that we provide our employees with the benefits, resources and support that addresses their lives both at and away from work.

For example, Ford Middle East held a Warrior in Pink campaign to raise awareness of breast cancer for employees via a video in collaboration with Mais Mohammad, a breast cancer survivor, life coach and motivational speaker, and her oncologist. The video discussed the importance of early detection of breast cancer along with the best ways for regular testing and self-checkup. After it was posted on the Instagram channels of Mais and Ford, the video had 10,000 views and 100% positive sentiment.

There is a relationship between psychological safety and wellbeing. We are focused on creating and maintaining an environment where our employees feel safe enough to share their voices. In 2022, the DEI Office hosted wellbeing sessions in response to real-time social issues such as the U.S. Supreme Court's decision to overturn Roe v. Wade and the U.S. military's withdrawal from Afghanistan.

Today more than ever, individuals are struggling to balance the increased complexities of personal and work life. As a result, Ford ensures that our programs, policies and employment practices recognize the diverse needs of all our employees, allowing them to contribute their maximum effort at work while at the same time fulfilling their personal and family responsibilities.

For example, our Total Health Program provides short-term professional counseling and referral services to employees and dependent family members. This voluntary and confidential service is free of charge and is available 24 hours a day/7 days a week, 365 days a year.

In addition to our core wellbeing offerings in 2022 we expanded or added programs, benefits and resources to improve employee wellbeing.

- We expanded the flexible family care policy to enable our employees to attend their own or immediate family member's healthcare and wellbeing appointments.
- We developed a Caring for Teams workbook for People Leaders to assist with wellbeing check ins and help employees overcome uncertainties and manage change.
- We developed a Wellbeing Ambassadors group which includes employees from a variety of skill teams that will help build the culture of wellbeing at Ford.

## Employee Health, Safety and Wellbeing – continued

We have continued to emphasize the importance of mental health through initiatives like monthly webinars from the National Council for Mental Wellbeing, and special events during Mental Health Awareness Month, Global Suicide Prevention Awareness Day and World Mental Health Day. September marked the third Annual Mindfulness Week, which presented new and innovative ways for colleagues to create calm and renewed focus in their daily lives.

Senior leadership has also participated in sharing the importance of breaking mental health stigma as well as their personal struggles and strategies that helped them. More than 400 Ford employees across the globe are bringing the concept of caring for each other to life as Mental Health First Aiders, acting as a first point of contact for fellow employees seeking support and/or information for concerns such as stress, anxiety or depression.

To bring awareness to the topic of burnout, we created a global infographic and curated additional resources to help employees and People leaders understand the signs and symptoms, as well as ways to prevent and resolve burnout.

### EMPLOYEE SENTIMENT

We leverage our ask/listen/observe framework to understand employee sentiment at Ford. This holistic and consistent methodology enables us to understand how employees are feeling in real time and act accordingly. Our measurement focuses on several areas that are key to our business:

- Employee Mental and Emotional Wellbeing
- Health & Safety
- Employee Experience, Culture, DEI, Leadership, and Strategic Alignment

Our efforts to drive change in these areas are paying off. For example, we began surveying our employees about their work-life balance at the onset of the COVID-19 pandemic. In 2022, 90% of the respondents, who were primarily salaried employees, indicated that they are empowered to have the work arrangement they believe is best for their jobs. Additionally, 86% of respondents indicated all people on their team feel valued, respected, and heard regardless of differences and 87% indicated their people leader provides the safety needed to openly share their opinion.



Ensuring that data ends up in the hands of those who are best positioned to drive meaningful change is a critical element of our measurement program. To this end, leaders at all levels have access to dashboards with data from their teams and organizations, as well as personalized next step recommendations embedded into action planning tools.

Our measurement approach is also used to inform our areas of focus as an organization and to evaluate the effectiveness of talent initiatives across the enterprise. We are undertaking several efforts in 2023 to continue evolving this program, including rotating questions in our always-on survey and incorporating new metrics to ensure we are learning from employees.

As we expand our footprint of wellbeing efforts, we continue to apply data analytics to understand employee needs and the impact of Ford's wellbeing programs and how these insights can help prioritize Ford's wellbeing efforts and drive positive outcomes.

Today more than ever, individuals are struggling to balance the increased complexities of personal and work life. As a result, Ford ensures that our programs, policies and employment practices recognize the diverse needs of all our employees, allowing them to contribute their maximum effort at work while at the same time fulfilling their personal and family responsibilities.

# 90%

OF EMPLOYEES INDICATED THAT THEY HAVE THE WORK ARRANGEMENT THEY BELIEVE IS BEST FOR THEIR JOBS

# 87%

INDICATED THEIR PEOPLE LEADER PROVIDES THE SAFETY NEEDED TO OPENLY SHARE THEIR OPINION

# Human Rights and Supply Chain Management



**Human Rights:** Source only raw materials that are responsibly produced

**Ford is committed to respecting human rights in everything we do. It's a core part of our purpose to help build a better world where all are free to move and pursue their dreams.**

As we design and manufacture solutions, we respect human rights and the environment over the entire life cycle of our products and services, from the origin of the raw materials to the end-of-life. Our commitment to human rights guides our strategy and our actions. Our focus on human rights begins within our company and extends to our suppliers, and by extension throughout the value chain – from ensuring a responsible EV supply chain to supporting a just transition in our company and in the communities in which we operate.

In 2021, we conducted our third rigorous assessment of salient human rights issues and issued the first stand-alone Human Rights Report in the U.S. auto industry in 2022.

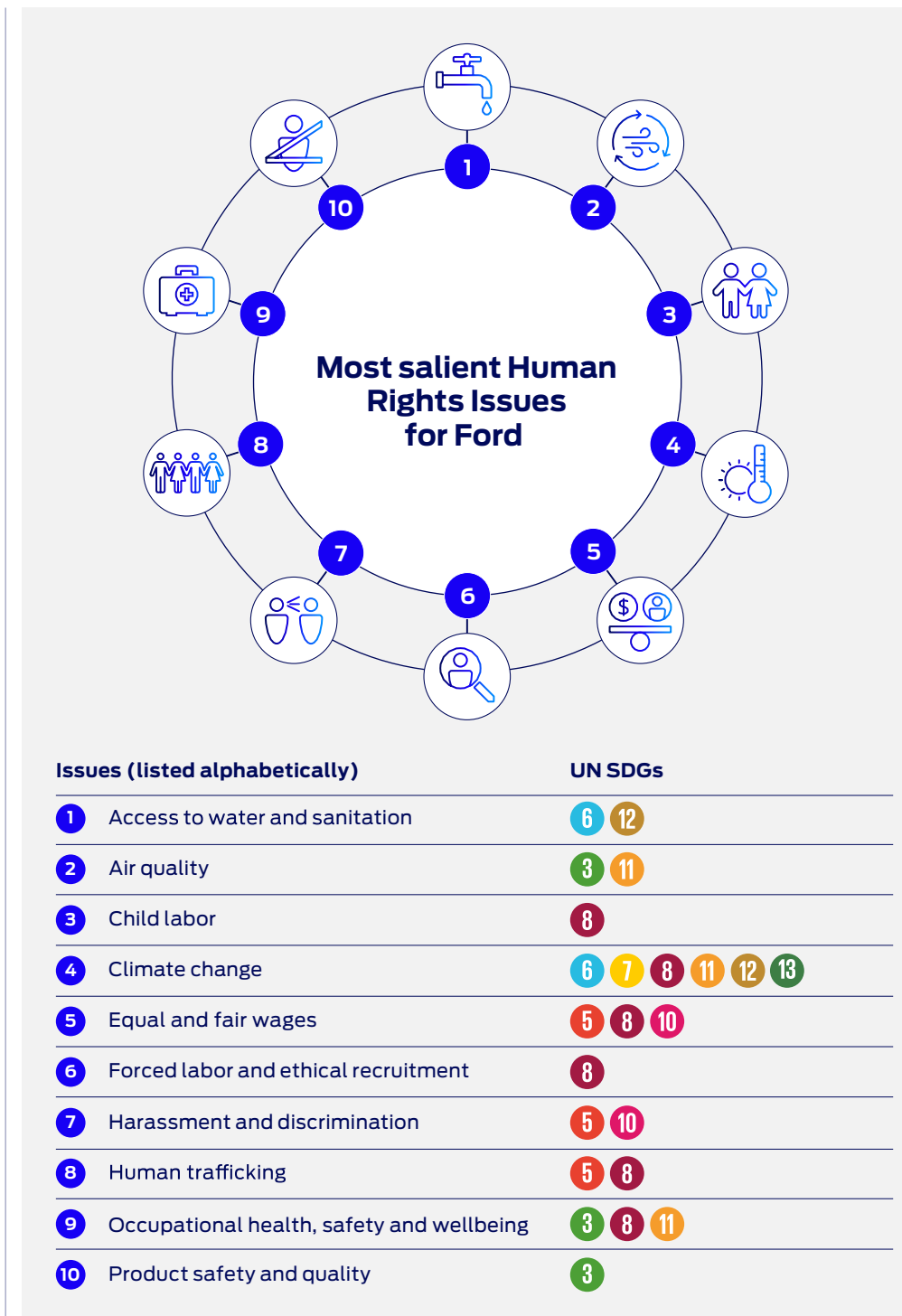
[▶ READ MORE IN OUR HUMAN RIGHTS PROGRESS REPORT](#)

## OUR HUMAN RIGHTS POLICY AND COMMITMENTS

Our commitment to respect human rights starts with our employees. We strive to maintain a safe and healthy work environment, do not tolerate harassment and discrimination, and follow ethical recruitment practices. Across Ford, we act with integrity and transparency, creating safe, inclusive workplaces.

We are guided by our [We are Committed to Protecting Respecting Human Rights and the Environment policy](#) which mandates that we:

- Treat our workforce fairly, humanely, and with respect and dignity
- Prohibit the use of child labor in any form
- Prohibit the use of forced or compulsory labor and slavery in any form and do not tolerate any forms of abusive disciplinary practices
- Prohibit the use or support of human trafficking
- Follow ethical recruiting practices
- Recognize and respect employees' rights to freedom of association and collective bargaining
- Comply with applicable laws regulating hours of work and support a living wage by providing competitive compensation and benefits that meet or exceed legal requirements



- Hire or use private or public security forces for protection of the company's projects with proper supervision and due diligence in adherence with this policy
- Do not engage in unlawful eviction or taking of land, forests and waters securing the livelihood of human beings
- Commit to not tolerating harassment or discrimination of any form, supporting diversity and women's rights, providing a healthy and safe working environment, protecting consumer and employee data privacy, and prohibiting bribery, even in countries where it may be tolerated or condoned

## Policy Review and Update

We have updated our [We Are Committed to Protecting Human Rights and the Environment policy](#) as shaped by the due diligence laws to clarify what is covered under Ford policy, including support of a living wage and explicitly requiring our suppliers to adopt and enforce similar policies.

## External Human Rights Commitments

We are committed to respecting the United Nations (UN) Guiding Principles on Business and Human Rights and support the UN Sustainability Development Goals (SDGs). We are members of the UN Global Compact and incorporate their Ten Principles in our operations.

We respect the International Labour Organization (ILO)'s Declaration on Fundamental Principles and Rights at Work, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, and the United Nations Women's Empowerment Principles.

## Recognition

We are proud of the external recognition we have received for our commitment to human rights. Ford has been recognized as the top automotive company in human rights by the World Benchmarking Alliance Corporate Human Rights Benchmark (CHRB) for the second time in a row. In 2022, Ford came first in the human rights category in 3BL Media's Best Corporate Citizen listing.



### TOP AUTOMOTIVE BRAND FOR HUMAN RIGHTS

For the second assessment in a row, Ford was ranked the top automotive brand globally in the World Benchmarking Alliance's 2022 Corporate Human Rights Benchmark. Ford also ranks sixth out of 27 companies assessed in the technology, apparel and automotive industries as part of the benchmark. We are proud that our commitment to ensuring respect for human rights in our operations and supply chain was recognized by this respected organization.

Leading the list of 29 automotive companies, Ford's top position was determined by a rigorous, updated methodology that included analyzing current policies, processes and practices in place that systematize human rights, coupled with effective response examples and protocols to address potential allegations.

### HUMAN RIGHTS GOVERNANCE

Governance of human rights issues begins at the top with our CEO and Board of Directors and flows through the organization. It provides a framework to embed human rights into our policies, assess risk through the identification of salient human rights issues, conduct due diligence, provide remedy when needed, and report transparently about our actions and processes.

Our Vice President, Chief Sustainability, Environment and Safety Officer is responsible for interpreting and implementing this policy, managing risk, and reviewing with, as appropriate, the Vice President Global Manufacturing and Labor Affairs, Vice President Global Commodity Purchasing, Chief People and Employee Experience Officer, and the Chief Policy Officer and General Counsel.

The Global Sustainability and Purchasing Supply Chain Sustainability teams are responsible for day-to-day operations of human rights and environment leadership, management and implementation.

A cross-functional team has been developed to review and determine how Ford will comply with new and upcoming due diligence laws. The internal team has also identified opportunities to be transparent about the human rights risks to Ford.

### HUMAN RIGHTS RISK ASSESSMENT

In our [We are Committed to Protecting Human Rights and the Environment policy](#), we commit to conducting due diligence and providing grievance mechanisms and remedy aligned with the UN Guiding Principles for Business and Human Rights. We assess risk, engage with various stakeholders, conduct training, and perform audits.

In line with this policy, Ford conducts human rights risk assessments across its global manufacturing facilities. Since 2020, Ford has used the Responsible Business Alliance (RBA) Online Self-Assessment Questionnaire (SAQ) for a more quantitative assessment of potential human rights risk and a consistent process to analyze responses. In 2022, 35 Ford facilities conducted self-assessments bringing the total of completed questionnaires to 109 since 2004. Assessment results show these facilities have low human rights risk, consistent with the previous year's results.

We will continue to evaluate and improve our processes for expanded rollout to additional facilities, furthering our efforts to ensure the protection of human rights and basic working conditions within our global manufacturing facilities.

We are ensuring our compliance with Germany's Supply Chain Due Diligence Act by conducting a saliency assessment with additional risk analysis of our operations including supply chain and are updating our processes for managing and addressing risks and closing gaps in our procedures. Ford is taking a leadership approach by implementing these due diligence actions globally throughout the company.

**“A company with Ford's scale can influence the supply chain and business practices across our entire industry. It is important that we not only think about how Ford can use our purchasing power to fuel our business needs, but also to advance sustainability.”**

**MARY WROTEN, DIRECTOR, GLOBAL SUSTAINABILITY & ESG**



### [HUMAN RIGHTS IN OUR SUPPLY CHAIN](#)

Ford is dedicated to respecting human rights everywhere we operate and throughout our supply chain. With more than 1,600 Tier 1 production suppliers providing vehicle parts composed of nearly 1,000 different materials, we recognize the complexity of our supply chain. Nonetheless we remain committed to understanding where materials come from and using materials in our vehicles that are safe and sourced responsibly.

Ford continues to work closely with our suppliers and with third-party assurers such as trusted partners like the Initiative for Responsible Mining (IRMA), Responsible Minerals Initiative (RMI) and Responsible Business Alliance (RBA), to identify and immediately address human rights issues in our supply chain against comprehensive social and environmental criteria outlined in our [Supplier Code of Conduct](#). We help our suppliers build their capacity to manage supply chain issues through training resources. We meet with our top suppliers individually to discuss specific sustainability topics on an annual basis.

### [Supplier Code of Conduct](#)

We aim to ensure that everything we make – or that others make for us – not only complies with local laws but follows our commitment to sustainability and human rights protection.

Members of Ford’s global supplier community are required to comply with Ford’s [Supplier Code of Conduct](#) (Supplier Code) as part of our Global Terms and Conditions. Launched in 2021, the Supplier Code outlines our requirements and expectations for supplier relationships including the protection of human rights and the environment, the responsible sourcing of materials, responsible and lawful business practices, and the associated implementation of these principles.

The Supplier Code extends beyond our Tier 1 suppliers and cascades through the supply chain. It mandates that Ford suppliers enforce a similar code of practice and requires that subcontractors do the same. In order to increase compliance, we are providing training to help suppliers update their policies to align with the Supplier Code.

[▶ READ MORE IN THE SUPPLIER CODE OF CONDUCT](#)

### [Assessing and Auditing our Supply Chain](#)

As we work to extend compliance with legislation, we are broadening our scope to include all 4,600 Tier 1 supplier sites to ensure compliance with the Supplier Code. Using the industry standard Drive Sustainability Self Assessment Questionnaire (SAQ), we analyze our suppliers’ policies to ensure they are aligned with ours. Armed with this information, our sourcing decisions now include results from the SAQ and suppliers’ willingness to work with us on compliance through our sourcing process.

Third-party sustainability audits let suppliers know whether they meet their contractual obligations to Ford and our expectations while highlighting areas for improvement. As a member of the RBA, we use its Validated Audit Protocol (VAP) to assess labor, health and safety, management systems, ethics and environmental issues in our supply chain.

In Europe, Ford is one of the 14 founding members of the Responsible Supply Chain Initiative (RSCI) launched by the German Automotive Industry Association VDA (Verband der Automobilindustrie).

The objective of the RSCI is to develop a standardized assessment for evaluating the sustainability of companies in automotive supply chains, including social compliance of working conditions, occupational safety and environmental protection. RSCI has also launched an industry standard audit, which is aligned with the requirements of Germany’s Supply Chain Due Diligence Act. We piloted this audit in 2022 and will expand our use of it in 2023.

We provide our suppliers with tools and training from the RBA to support their continual improvement if gaps are identified from their audits or SAQ responses. We also provide training locally to our suppliers based in countries with higher risk of forced labor, to ensure they recruit ethically.

[▶ READ MORE IN THE HUMAN RIGHTS PROGRESS REPORT](#)

### [WORKER VOICE APP](#)

In 2022, we launched the new RBA Worker Voice Platform to our suppliers. Developed by the RBA, the platform gives workers more ways to provide feedback and learn important professional and personal skills, as well as a place to air grievances.

Features of the RBA Worker Voice Platform include:

- **Feedback Reporting** – Provides a simple reporting method for workers via QR codes, mobile phones, or website
- **Worker Survey Tool** – Easily deploys customizable surveys to thousands of workers across multiple suppliers and/or facilities in our supply chain
- **Audit Support** – Allows for worker interviews to be performed discreetly, without supervisor oversight, and enables workers to report retaliation against audit participants
- **Mobile Learning App** – More than 400 courses in multiple languages are available on a range of subjects, including health and safety, career development, and personal growth

We offered use of this app free to charge to all our direct suppliers in 2022, and will continue to encourage adoption by suppliers in 2023. We also introduced the app’s grievance mechanism on our corporate website to enable its use for any member of the community to learn and provide feedback.

**SUPPLY CHAIN TRANSPARENCY**

Supply chain transparency and human rights protection go hand in hand. When potential supplier issues are identified anywhere in our supply chain, we initiate an investigation to determine whether the supplier is in the supply chain providing parts to Ford. If confirmed, we then work with our Tier 1 supplier to cascade our requirements and confirm compliance with our Supplier Code. We are currently developing internal systems to conduct these investigations proactively with suppliers in our highest risk categories.

By improving our visibility into our supply chain, we are enabling better business practices and supply chain resiliency, starting from raw materials and their responsible sourcing. Not only does this help us identify and address human rights risks, it also positions us to comply with due diligence legislation.

**RESPONSIBLE SOURCING OF RAW MATERIALS**

Ford uses our purchasing power to not only fuel our business needs but also protect communities and the environment on which they depend. Our goal is to understand the origins of our raw material and ensure it is sourced responsibly, upholding our commitment to human rights, compliance with international standards, and minimizing environmental and community impact.

It is imperative that we have sufficient raw materials to achieve our goals for electric vehicles. To do so, we are moving quickly to identify and negotiate with raw material suppliers to secure materials that meet our ESG requirements. We have implemented processes and structural changes to enable fast action.

We are working diligently to ensure we are ethically sourcing and tracing the value chains and the raw materials that move through them. We are making sourcing decisions that align with our sustainability standards and corporate sustainability commitments.

**CATENA-X**

In an effort to increase the transparency of our supply chain, we have engaged with the Catena-X Automotive Network, which was established to improve sustainability and efficiency across the automotive supply chain through continuous data exchange between partners.

As a digital ecosystem and collaborative network, Catena-X will create uniform standards for data and information exchange across the automotive value chain. Ford joins a wide range of partners from business and science in this unprecedented collaboration between companies in the automotive industry.

The areas of application include quality management, maintenance, supply chain management and sustainability. The smooth flow of data between members and their global partners could improve issue management in case of supply chain pressures, raw materials shortages, and parts tracking and address issues quickly.

Ford's involvement with Catena-X will help the company improve sustainability, ensure human rights standards are followed and make supply chains even more transparent.

**Conflict Minerals Due Diligence**

Since 2013, in compliance with the U.S. Dodd Frank Act, section 1502, we have filed an annual report with the U.S. Securities and Exchange Commission (SEC). The report describes our due diligence process, as defined by the OECD Due Diligence Guidance to ensure suppliers who provide us with components containing tin, tungsten, tantalum, and gold (3TG) understand the origins of such minerals, source them responsibly, and not knowingly provide parts containing minerals that contribute to conflict. Suppliers are required to use smelters and refiners that have been validated as conforming to an independent third-party responsible mineral sourcing validation program.

**“We see sub-tier transparency as an opportunity to partner with our supply base to ensure we are all meeting the needs of our people, our planet, and our businesses.”**

**DEB HEED, SUPPLY CHAIN SUSTAINABILITY  
MANAGER – HUMAN RIGHTS**

We continue to enhance our Responsible Material Sourcing program by expanding the scope of our due diligence to include additional industry-relevant materials and mineral provenance from Conflict Affected and High Risk Areas beyond the Democratic Republic of the Congo (DRC) and adjoining countries. Ford has conducted a formal due diligence process on cobalt since 2018, mica since 2019, and launched due diligence on lithium and nickel in 2022.

► [READ MORE IN THE CONFLICT MINERALS REPORT](#)

### EV Battery Materials

As we take leadership of the electric revolution, we are building an EV supply chain that upholds our ESG commitments. We recognize that some of the EV components include minerals with inherent risk due to extraction processes and country locations. In 2021, we initiated supply chain mapping and auditing to understand the sources of the cobalt, nickel and lithium used in our EVs. This work continues with expanded scope to include plug-in hybrid electric vehicle (PHEV) supply chains and more audits. We continue to partner with RCS Global to conduct responsible sourcing third-party audits on key battery materials down to the mine site using IRMA Critical Requirements.

Many of our global supplier sites are located in high-risk countries and countries with developing economies. Our focus on human rights gives us the opportunity to raise the standards in the communities in which our suppliers operate and ensure our purchasing power can create a positive impact throughout the battery supply chain.

We work closely with our suppliers to ensure built-in flexibility and are securing material that reflects our responsible sourcing expectations by conducting due diligence in all phases of the sourcing process.

We are also working to align suppliers' ESG performance, programs and practices with international standards and best practices as well as Ford policies, including our [Supplier Code of Conduct](#).

► [READ MORE ABOUT HUMAN RIGHTS IN OUR SUPPLY CHAIN IN THE HUMAN RIGHTS PROGRESS REPORT](#)

► [SEE AUDIT RESULTS AND CORRECTIVE ACTION PLANS IN THE PERFORMANCE DATA ON P.110](#)

### Supply Chain Partnerships

Mounting requirements and transparency around supply chain are providing opportunities to work across industries to increase supply chain transparency and support human rights. We partner with other businesses, organizations and coalitions that have the same standards and commitments to a sustainable future as we do.

As a member of the Responsible Business Alliance (RBA), we engage in cross-industry dialogue and standard setting on issues related to human rights in our operations and supply chain and responsible materials sourcing. In addition to membership participation, Ford chaired the RBA Board of Directors 2020-2022 and has been re-elected to the board and executive committee for an additional two years.

Ford joined other major automotive manufacturers globally, along with the Automotive Industry Action Group (AIAG) and Drive Sustainability, to make needed changes and additions to the [“Automotive Industry Guiding Principles to Enhance Sustainability Performance in the Supply Chain.”](#) The revised document addresses the latest ESG expectations and trends in the automotive supply chain and includes new topics such as circularity, carbon neutrality, animal welfare, biodiversity, land use and deforestation.

Our membership in IRMA and promoting the use of comprehensive, third-party assessments of mining practices helps us achieve our responsible sourcing goals. When we became the first U.S. automaker to join IRMA in 2021, we strengthened our human rights aspiration to responsibly source all raw materials used within vehicles globally.

We are also embracing technologies such as blockchain to give us deeper visibility into our supply chain. We chair Mobility Open Blockchain Initiative's (MOBI) Supply Chain Working Group which is introducing industry-wide standards based on blockchain to ensure sustainable sourcing and help track vehicle parts – such as EV batteries – throughout production, use, maintenance, and end-of-life.

U.S. AUTO COMPANY  
TO JOIN IRMA



### BATTERY RAW MATERIAL SOURCING

It is critical that we have sufficient access to the battery raw materials we need to power our transition to electric vehicles. In July 2022, we announced a series of initiatives for sourcing raw materials that lights a clear path to reach our targeted annual run rate of 600,000 electric vehicles by late 2023 and more than 2 million by the end of 2026.

To ensure that our raw materials and battery processing suppliers meet our ESG expectations, we are conducting due diligence throughout the entire sourcing process. These expectations are aligned with our [We Are Committed to Protecting Human Rights and the Environment](#) policy and our [Supplier Code of Conduct](#). We are requesting IRMA certified raw materials and working with mining companies to become more familiar with IRMA. In addition, we are requesting processing facilities to apply similar independent or third-party standards that demonstrate their actions toward responsible sourcing. Finally, we continue to conduct due diligence with companies after we have signed agreements to ensure that our ESG commitments are being met.

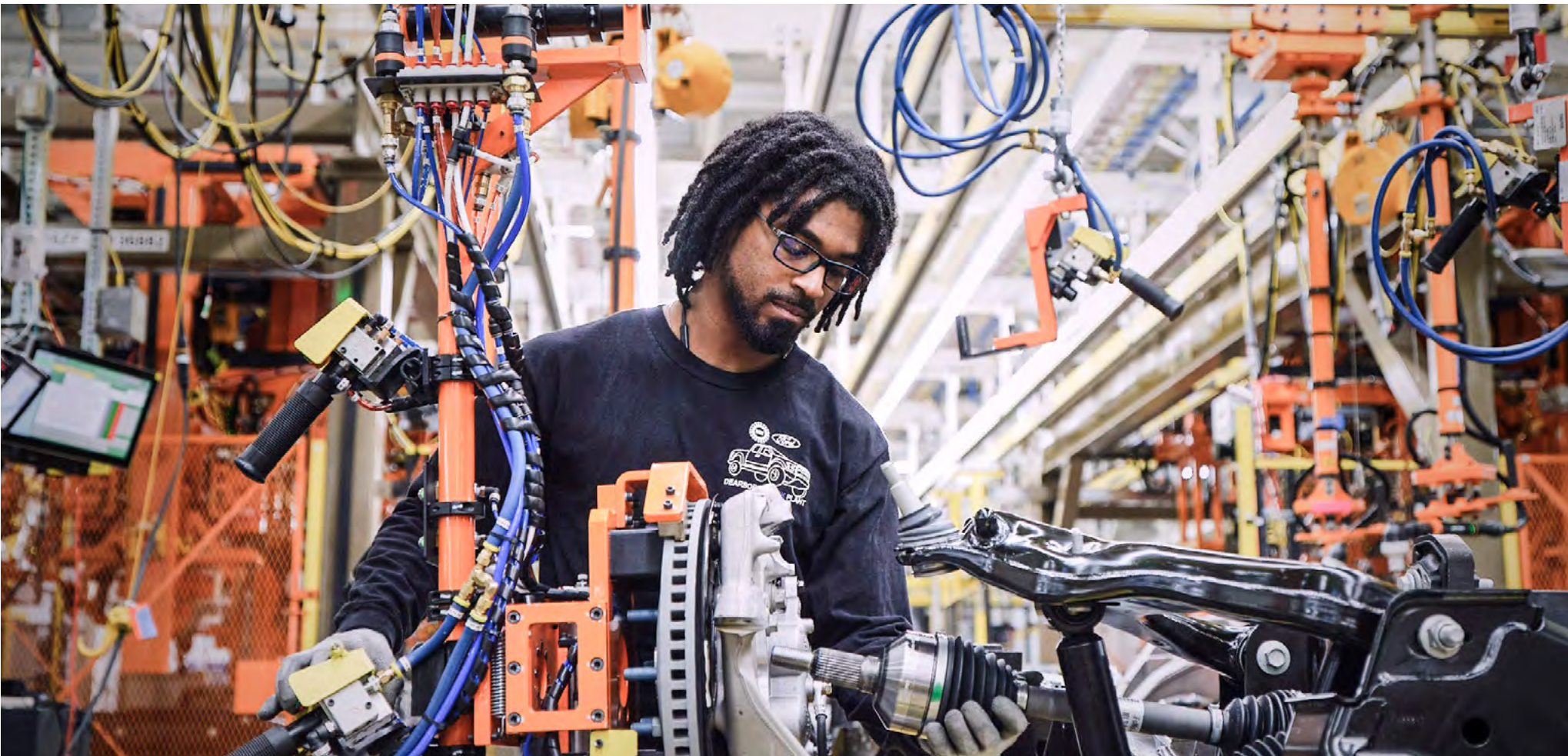
► [READ MORE IN THE ELECTRIC VEHICLES, BATTERIES AND CHARGING INFRASTRUCTURE CHAPTER ON P.24](#)

► [READ MORE IN THE HUMAN RIGHTS PROGRESS REPORT](#)



“Our team has been actively engaged with partners in the United States and around the world as we source battery raw materials. We will move fast in the key markets and regions where critical supplies are available, meeting with government officials, mining companies and processors and signing MOUs and agreements that reflect Ford’s environmental, social and governance expectations and underpin Ford’s plan to bring EVs to millions.”

LISA DRAKE, FORD MODEL E VICE PRESIDENT,  
EV INDUSTRIALIZATION



**Looking Ahead**

Looking ahead to 2023, our priorities are to ensure compliance with new due diligence laws, including developing processes to prevent, mitigate, and remediate human rights issues. At the same time, with a complex global supply chain including thousands of production and non-production suppliers with multiple sub-tiers, we are acutely aware of the challenges we face when it comes to sustainability and transparency. We are preparing to comply with upcoming regulations by:

- Including sustainability metrics in sourcing decisions
- Expanding use of the RBA Worker Voice App to enable supply chain employees to provide feedback and file grievances

- Formalizing sustainability requirements for suppliers in alignment with our [Supplier Code of Conduct](#) and updating the Code
- Updating our Risk Assessment process and taking actions to address risks identified

Ford has been among the leaders in this space for some time. We welcome the opportunity to work with other businesses to share knowledge and further improve our performance.

# Product Safety and Quality



**We take safety seriously. It's fundamental to our aspiration to be the world's most trusted company; a company that works to enable a future that is free from vehicle crashes. To get there, we are leveraging innovative technologies to develop and deliver vehicles with high levels of safety that meet or exceed applicable laws and regulations.**

**We are committed to ensuring that Ford drivers and their passengers enjoy the ride – safely. Our dedication to safety extends beyond the vehicle to include pedestrians, all road users and the general public.**

[▶ READ MORE ABOUT OUR PROGRESS ON THIS SALIENT HUMAN RIGHTS ISSUE IN OUR HUMAN RIGHTS PROGRESS REPORT](#)

## **DESIGNING AND DELIVERING SAFE AND QUALITY VEHICLES**

We take safety seriously. It's fundamental to our aspiration to be the world's most trusted company; a company that works to enable a future that is free from vehicle crashes. To get there, we are leveraging innovative technologies to develop and deliver vehicles with high levels of safety that meet or exceed applicable laws and regulations. Across our product portfolio, our vehicles incorporate state-of-the-art passive and active safety features, as well as driver assist technology to help prevent or mitigate accidents.

Our customers expect high levels of product safety, and we are committed to maintaining their trust and meeting their expectations and needs. From the design process through manufacturing and customer use, we are dedicated to creating vehicles that achieve high levels of safety in a range of real-world conditions and crash testing assessments.

Our processes and systems ensure that our vehicles conform to our stringent internal guidelines on safety design and Ford-specified levels of performance for Public Domain tests. In pursuit of continuous improvement, we regularly re-evaluate and update these guidelines.

A full suite of engineering analyses, computer simulations and component, subsystem and full-vehicle crash test help us achieve high levels of safety performance. We conduct these safety exercises at 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.

Ford does not use animals for testing nor do we ask or fund others to do that for us. We will continue to be leaders in creating, developing, and validating alternative methods to proving and providing product safety.



**Safety:** Work toward a future that is free from vehicle crashes and workplace injuries

## **KEY SAFETY METRICS**

Ford vehicles continue to achieve high marks and recognition in public and private crash testing assessments. The varying protocols and evaluation criteria of New Car Assessment Programs (NCAPs) and their continuous updates to those criteria make it increasingly difficult to achieve top ratings across all regions. Despite these challenges, many of our vehicles receive 5-star ratings globally, and we continue to place considerable emphasis on our performance in these assessments.

### **Our 2022 Vehicle Safety Highlights:**

In 2022, Ford maintained its 10 TOP SAFETY PICK awards from the Insurance Institute for Highway Safety. The TOP SAFETY PICK award requires top scores in six crash-worthiness test categories: driver- and passenger-side small overlap front, moderate overlap front, original side, roof strength, and head restraints. Also, the vehicles have available acceptable or good-rated headlights, and advanced or superior-rated vehicle-to-vehicle and vehicle-to-pedestrian automatic emergency braking systems.

### **United States: U.S. NCAP (NHTSA)**

- For the 2022 model year, Ford Mustang, Escape, Edge, Expedition, F-150, F-250, and Bronco Sport and Lincoln Corsair, Aviator, and Nautilus nameplates were rated with 5-star overall vehicle scores (as of January 2023).

### **United States: Insurance Institute for Highway Safety (IIHS)**

- Ford maintained 10 TOP SAFETY PICK/TOP SAFETY PICK+ Awards for 2022: Escape, Edge, Explorer, Corsair, Aviator, Bronco Sport, F-150 Crew Cab, F-150 SuperCab, Mustang Mach-E, and Nautilus. This represents 63% of the Ford/Lincoln nameplates receiving the TSP/TSP+ awards. The TSP awards apply to Ford and Lincoln vehicles equipped with specific headlights.

### **Europe: Euro NCAP**

- Ford had eight Euro NCAP 5-star rated vehicles in 2022: Mustang Mach-E, Fiesta, Focus, Mondeo, Kuga, Explorer, Tourneo Connect and Ranger. These vehicles represent 57% of our vehicle models on sale in Europe in 2022.

### **China: China NCAP**

- Ford Equator Sport has been rated 5-star for CNACP. Lincoln Zephyr testing in progress as of publication date.

### China: C-IASI (China Insurance Automotive Safety Index)

- Ford Mondeo testing and evaluation is in progress as of publication date.

### Australia & New Zealand

- 2022 Ranger Pickup & Everest SUV models in Australia and New Zealand were awarded 5-star Australasian NCAP (ANCAP) safety ratings, maintaining the Best In Class ANCAP safety ratings of the outgoing models. 83% of Ford models assessed by ANCAP hold the highest possible 5-star rating.

### Euro NCAP Commercial Van Rating

With millions of vans on Europe’s roads, the safety of commercial vehicles is key to improving safety for all road users.

Ford’s advanced active safety technology fitted to commercial vehicles helps customers avoid accidents and minimize the expense and downtime of crash repairs. In an initiative testing the performance and effectiveness of active safety systems on many of Europe’s best-selling vans, covering almost all sales, the Ford Transit and Transit Custom both excelled.

The Transit, E-Transit and Transit Custom were selected to receive the Gold-level rating from the independent vehicle safety authority Euro NCAP. The tests, among others, assessed the performance of advanced driver assistance features to avoid or mitigate accidents and protect other road users, including pedestrians and cyclists.

### U.S. AUTOMATIC EMERGENCY BRAKING (AEB) COMMITMENT

Ford’s Automatic Emergency Brake (AEB) Pre-Collision Assist feature<sup>7</sup> scans the road ahead and can alert drivers to potential collisions with vehicles or pedestrians directly in the driver’s path<sup>8</sup>. If the driver’s response is not sufficient, AEB will increase brake-assist sensitivity to provide full responsiveness when the driver does brake. If an impact becomes imminent and the driver does not take corrective action, brakes can apply automatically.

Ford committed to equip at least 95% of all new light-duty vehicles (under 8,500 pounds) with AEB in the U.S. market by September 2023. Ford met that commitment two years early and AEB is now standard on 97.8% of light-duty vehicles under 8,500 pounds.



Ford is continuing our AEB commitment for vehicles in the 8,501 to 10,000-pound range, which requires 95% AEB fitment by September of 2026. 76.4% of Ford vehicles in this weight class have AEB standard as of September 2022. Ford will also be selling AEB equipped vehicles in Canada at similar levels.

### ADVANCEMENTS MADE IN ACTIVE SAFETY TECHNOLOGIES AND CO-PILOT 360 TECHNOLOGY

We continue to make advancements in our Active Safety Technologies and Co-Pilot 360 to help keep drivers in command from the driveway to the highway. From blind spot detection to parking assistance to hauling cargo, Co-Pilot 360 gives drivers a clear view of the road ahead and the path behind them.

### **New BlueCruise Features**

Ford has built an in-house team dedicated to constantly improving BlueCruise – adding features and enhancing its hands-free Advanced

Driver Assist Systems (ADAS) with experiences that offer a more human-like driving feel.

New BlueCruise 1.2<sup>5</sup> and Lincoln ActiveGlide 1.2 permit hands-free highway driving on over 130,000 miles of prequalified roadways in North America called Hands-Free Blue Zones.

New features and system updates that make the hands-free highway driving experience even better arrived on vehicles from the factory in the fall of 2022, beginning with the Ford Mustang Mach-E. The latest improvements include hands-free lane changing for easier passing, in-lane repositioning to more confidently share roadways with larger vehicles, and predictive speed assist to smoothly reduce speed entering tight curves.

These improvements are receiving external recognition. In early 2023, BlueCruise was named the top-rated ADAS by Consumer Reports<sup>24</sup>.

# 114k

ENROLLMENTS IN FORD  
BLUECRUISE AND LINCOLN  
ACTIVEGLIDE TECHNOLOGY  
IN 2022

# 48M+

MILES DRIVEN WITH FORD  
BLUECRUISE AND LINCOLN  
ACTIVEGLIDE

**Enhancing the safety of vehicle occupants is a responsibility we take seriously. We frequently publish the results of that work in scientific publications and peer-reviewed journals.**

Since its inception, BlueCruise and ActiveGlide have been popular with customers. Enrollments of Ford's BlueCruise/Lincoln ActiveGlide technology for 2022 totaled 114,000 vehicles and customers have accumulated more than 48 million hands-free miles with BlueCruise and ActiveGlide.

Ford BlueCruise and Lincoln ActiveGlide will continue to rollout in 2023 on additional nameplates. The 2023 Mustang Mach E and Lincoln Corsair will also have driver initiated automatic lane change capability offered with BlueCruise/ActiveGlide, a first for our company.

#### Onboard Scales

This available feature offers a scale that measures payload weight automatically based on the specific capability of the F-150 Lightning. Approximate payload information is displayed in the center touchscreen with a graphic representation of the truck or on a mobile phone through the FordPass™ App. Scale mode zeroes out the current load and allows for approximate weighing of additional items loaded onto the pickup.

#### Pro Trailer Backup Assist™

This available feature makes backing up a trailer as easy as turning a knob – simply rotate in the direction you want the trailer to go and Pro Trailer Backup Assist responds accordingly.

#### Trailer Reverse Guidance

Available Trailer Reverse Guidance enhances visibility with cameras in the sideview mirrors and visual guides in the center dash screen to give extra assistance when you are backing up a trailer. Drivers get a clear view of where the trailer's going while Trailer Reverse Guidance coaches them along the way.

#### Pro Trailer Hitch Assist™

Available Pro Trailer Hitch Assist helps drivers hook up trailers more easily by automatically controlling the steering wheel, throttle, and braking to align the hitch ball and trailer coupler. The driver simply holds down a button and controls the gears until the coupler is high enough to clear the hitch ball. Once the two are aligned, the truck stops and the driver lowers the trailer onto the tow ball.

#### Smart Hitch

Available Smart Hitch is designed to help drivers easily load trailers and practice safe towing. Smart Hitch helps the customer distribute trailer weight correctly by measuring the tongue weight of a trailer being connected. Smart Hitch calculates the trailer's appropriate tongue weight after it is set up on the center touch screen and provides guidance on weight distribution or hitch overloading on the screen or on the FordPass App. The truck will indicate if the current hitch weight is too high or low, and can even guide owners through properly tensioning a weight-redistributing hitch.

#### Combating Heatstroke in Vehicles

On average, a child dies from vehicular heatstroke every nine days in the United States. In response, our Rear Occupant Alert System gives an "in-vehicle" warning via our SYNC system that alerts the driver to check the back seat of the vehicle for occupants after the ignition is turned off. The system is included in all four-door 2021 model year vehicles equipped with SYNC, meeting the 2019 Voluntary Agreement with the federal government. The feature is available on select models.

Ford will continue to enhance warning notifications for future models and research technologies that can detect in-cabin occupant presence. These features will help address scenarios beyond those defined by the 2019 Voluntary Agreement, and should enhance effectiveness in minimizing and potentially avoiding pediatric vehicular heatstroke cases.

#### KEEPING OCCUPANTS SAFE

##### Precompetitive Partnerships

Enhancing the safety of vehicle occupants is a responsibility we take seriously. We collaborate with other automotive manufacturers through the U.S. Council for Automotive Research (USCAR) and Canadian Vehicle Manufacturers' Association (CVMA). We are working with other manufacturers through the Alliance for Automotive Innovation, the European Council for Automotive R&D (EUCAR), the Society of Automotive Engineers (SAE), and the International Organization for Standardization (ISO). We frequently publish the results of that work in scientific publications and peer-reviewed journals. We also provide information and educational programs directly to consumers to promote safe driving practices through the Driving Skills For Life program.



**SAFETY RESEARCH PARTNERSHIPS**

<b>Occupant protection and crashworthiness</b>	Evaluating the safety performance of lithium-ion batteries with Sandia National Laboratories and the National Renewable Energy Laboratory. Effort includes developing mechanical, thermal and electromechanical multi-physics modeling capabilities to help predict lithium-ion battery performance and damage when subjected to an impact.
<b>Technical challenges of self-driving vehicles</b>	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.
<b>Vehicle-to-Vehicle (V2V) safety communication systems</b>	Ford envisions that the future of transportation will be increasingly electric, connected, and autonomous. Cellular vehicle-to-everything (C-V2X) is an essential component of the next-generation connected transportation network. Ford plans to deploy C-V2X as soon as practicable subject to a conducive regulatory environment in individual markets. The ability to interact with vehicles, infrastructure, pedestrians, bicyclists, and others can help ensure safer streets to the benefit of all citizens.
<b>Cybersecurity</b>	Ford’s long-standing commitment to protect our customers extends to the company’s software-led transformation to create always-on ownership experiences. We recognize that this transformation comes with challenges such as cybersecurity, which is why Ford has integrated cybersecurity with all stages of the vehicle life cycle. This includes following established global cybersecurity standards (UNECE R155) for automakers, and proactively assessing the impact of cybersecurity on new areas such as data privacy, Ford Co-Pilot 360 semi-automated driver assistance technologies, and development of our fully autonomous vehicle
<b>Driver distraction</b>	Partnering with universities and organizations such as the Alliance for Automotive Innovation, we are researching driver distraction and analyzing data from large-scale naturalistic driving studies.

**Post-Crash Response**

Not only can our SYNC in-car connectivity help occupants call for assistance after an accident, but it can also give first responders potentially life-saving information, quickly and efficiently. SYNC in-car connectivity provides the operator with a GPS location and relays data on impact velocity, crash type, safety belt use, and airbag deployment, helping emergency services respond appropriately.

The majority of our vehicles also carry the SOS Post-Crash Alert System™, which alerts passers-by and first responders to a vehicle’s location.

**Keeping Customers Safe and Satisfied**

Customer satisfaction is an important part of our safety efforts. We are expanding the use of connected vehicle data to identify potential emerging issues as well as to help us understand what customers may be experiencing.

**Keeping Pedestrians and Cyclists Safe**

Ford is researching a new smartphone-based communications technology that could potentially help warn drivers of pedestrians, bicyclists and more – even those approaching a vehicle’s path but blocked from a driver’s view. The concept smartphone app for pedestrians and others can communicate potential risks to connected Ford vehicles with SYNC providing in-vehicle screen alerts, complementing other technologies such as Ford Co-Pilot 360<sup>25</sup> advanced driver assistance systems. Ford is researching the technology with Commsignia, PSS, Ohio State University, T-Mobile and Tome Software.

**EV Battery Health and Safety**

Ensuring the safety and quality of EV batteries is crucial to building trust in our fleet of electric vehicles. Every Ford EV includes a battery quality operating system. Quality checks and tight process controls are integrated throughout the battery cell manufacturing and battery pack screening during vehicle assembly. Once a vehicle is built, Ford leverages cloud-based vehicle monitoring and detection and can communicate with connected customers if a voltage anomaly is detected. Ford also provides High Voltage safety publications including a Workshop Manual for vehicle technicians and an Emergency Responders Guide for first responders.

Ford EVs are subjected to crash testing that far exceeds the stringency of regulatory requirements. For example, we conduct front, side and rear impact crash tests at 5mph above the speeds required by safety regulations, which translates to increased impact severities ranging from 20-35% as compared to what is required by law. We also conduct crash tests that are not even required by regulations, furthering the high level of safety of our EVs.

Ford is involved in pre-competitive research related to EV and battery safety such as Li-ion Multiphysics Modeling, Post Crash HV/LV Components and Connectors and Intrusion Effects on HV Batteries.

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, even before delivering the vehicle to the customer.



**Monitoring Product Quality and Brand Advocacy**

Our mission is to make product quality one of the principal reasons why customers buy Ford the first time – and every time.

We use several metrics including warranty repairs, customer advocacy, and customer excitement to understand how consumers perceive the quality experience from our products.

Our Quality Net Promoter Score (QNPS) metric, which measures the ownership experience at three, 12 and 36 months in service, helps us understand and improve our consumers’ quality perceptions and advocacy over their ownership cycle. QNPS provides a comprehensive and holistic view of quality by capturing both customers’ “dislikes” and “likes”.

Ford realized improvements at both 12 and 36 months of service in our 2022 QNPS metrics. QNPS provides timely and actionable insights that align with various industry performance indicators of quality, such as the annual studies conducted by J.D. Power.

We leverage external, industry benchmarking data to understand the relative strength of our quality performance and our improvement opportunities. This also provides us credibility with external stakeholders and audiences. All Ford plants are accredited to ISO 9001:2015.

**Industry – 2022 Quality Achievements**

- Initial Quality Study (IQS):** In the J.D. Power IQS results, which rank automotive Original Equipment Manufacturers (OEMs) and their brands based on problems per 100, Ford Motor Company’s rank position improved to third among 15 OEMs in the industry, up from seventh in 2021. Additionally, the Ford brand rank improved from twelfth to sixth among mass market brands. The Lincoln brand ranks fifth of 15 among premiums. Ford won two awards for Ford Ranger (Midsize Pickup) and Lincoln Nautilus (Midsize Premium SUV).
- J.D. Power Automotive Performance, Execution and Layout Study (APEAL):** Ford received additional awards in the J.D. Power U.S. APEAL Study, which measures the excitement factor (for example “Things Gone Right”), with product experience, from the impression the exterior provides through the feeling provided by the driving experience. Ford Motor Company performs at industry average. Ford brand ranked eighth along mass market brands; Lincoln brand ranked seventh in Premium. Ford received two segment level awards in very competitive segments: Ford Bronco Sport (Small SUV) and Super Duty (Large Heavy-Duty Pickup).

**IMPROVING OUR QUALITY PROCESSES**

We are committed to improving our quality processes. We continue to invest additional time and attention to improving vehicle quality and customer safety. We are striving to ensure quality, customer satisfaction, and recall actions have more visibility and support at all levels of the company.

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, even before delivering the vehicle to the customer. Our Early Quality Issue Suite draws on multiple data sources, from connected vehicles to customer service calls, to accelerate the investigative process. This tool minimizes time from detection to correction by combining this information with automatic anomaly detection and root cause analysis.

Machine learning tools are now being utilized for expedited review of field reports to accelerate the detection of potential issues in the field. Additionally, this capability is being further developed with the vision of automatically and continuously identifying potential issues with limited human intervention. This will translate into faster analysis of the data to address customer concerns at a more accelerated pace.

We are expanding the numbers of parts and subsystems that we can precisely trace to vehicle-specific builds when an issue arises. This avoids issuing wider recalls targeting a date range of vehicle identification numbers, which generally involve broad vehicle populations that may not all be affected. By precisely identifying recall populations we can limit the number of customers who are inconvenienced and optimize the number of remedy parts needed.

Resolving issues quickly is important to our customers. We measure time to issue resolution with a “shot clock” that leverages Quality Early Detection and uses over-the-air (OTA) update capability for faster issue resolution. Connected vehicles give Ford the opportunity to update software OTA without requiring a customer to bring their vehicle to a dealership for repair. With customer consent, Ford can address certain safety, environmental, and quality issues OTA. The benefits of OTA software updates include speed of repair and improved completion rates, customer convenience (since no dealership visit is required), and lower cost for Ford, since dealerships do not need to be reimbursed for labor.

We continue to improve our integrated data management system for tracking investigations all the way through recall implementation.

# Socioeconomic Contribution and Community Engagement

Our philanthropic arm, Ford Motor Company Fund, has been working shoulder-to-shoulder with communities globally to help build a better world for more than seven decades. Ford Fund partners with local leaders and nonprofits to understand and help meet unique needs in under-resourced and underrepresented communities.

**FORD FUND MISSION: PARTNERING WITH COMMUNITIES TO MOVE PEOPLE FORWARD AND UPWARD**

Ford Motor Company Fund co-creates and invests in partnerships and programs across three impact areas: essential services, education for the future of work, and entrepreneurship. Programming is designed to ensure people have equitable opportunities to progress and move forward.

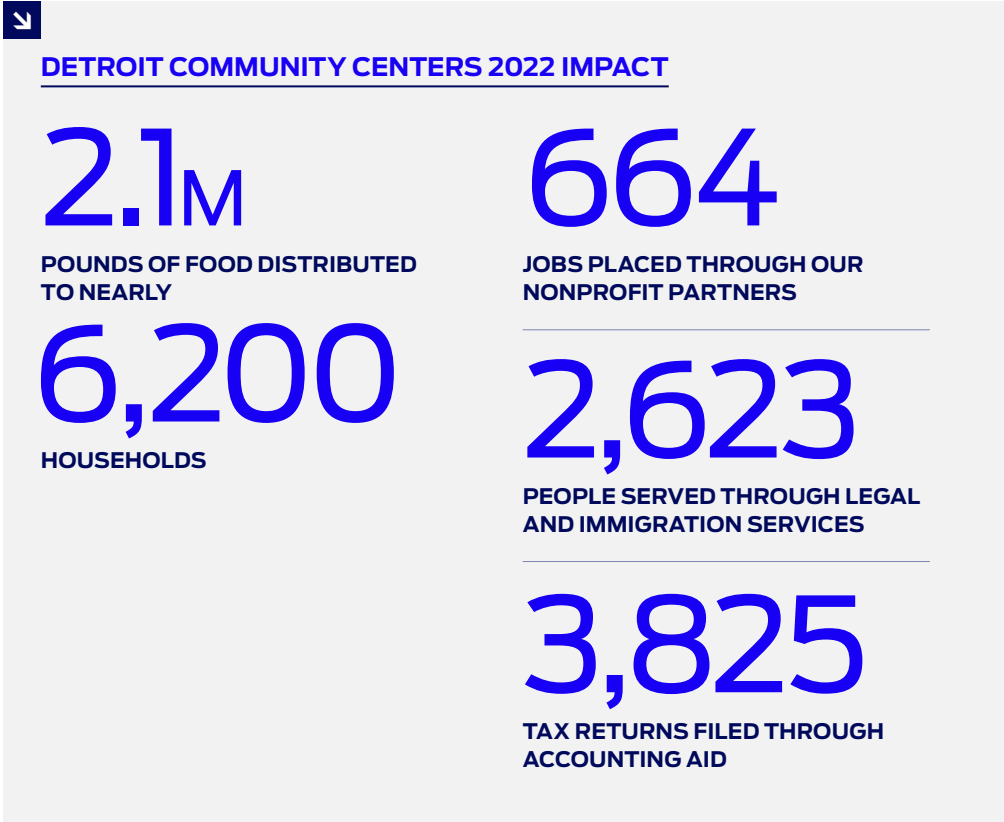
Working across the enterprise, Ford Fund identifies opportunities to leverage the company’s scale, resources and mobility expertise to drive progress and make meaningful impact in communities through Ford Resource Centers, employee volunteerism and grantmaking.

In 2022, Ford and Ford Fund invested more than \$64.3 million in charitable contributions to help strengthen communities and build a better world. Since 1949, we have invested more than \$2.2 billion in community-focused initiatives around the globe.

**INNOVATING TO SUPPORT LOCAL NEIGHBORHOODS**

Ford Resource and Engagement Centers are a Ford Fund innovation that bring nonprofits, residents and leaders together to increase access to food, essential services and community programming in under-resourced neighborhoods. Since 2013, we have developed a global network of these facilities – each one unique in how it reflects the needs and culture of the community it serves.

At our resource centers in Detroit, we partner with nonprofits to deliver food and provide job placement, legal and financial services, and youth programming for residents. Our location on Detroit’s East Side celebrated its fifth anniversary in 2022, and our southwest Detroit facility turns 10 in early 2023.



Our center in Craiova Romania, which also celebrated its fifth anniversary in 2022, focuses on students and startups, serving as an incubator space for young people to create innovative solutions for job growth and economic opportunity. Our Bangkok community center programming focuses on food delivery, environmental conservation, art and technology, and our center in Pretoria, South Africa focuses on entrepreneurship training to support economic growth.

[▶ VIEW A VIDEO ABOUT COMMUNITY RESOURCE CENTERS](#)

**MOBILIZING EMPLOYEE VOLUNTEERS**

Every year, our employees demonstrate their commitment to building a better world by participating in the Ford Volunteer Corps – a global network of employees and retirees who volunteer their time in support of humanitarian efforts in Ford communities around the world. In 2022, nearly 5,400 Ford employees spent over 50,000 hours volunteering in community service projects throughout the year. During Global Caring Month in September, our annual month-long focus on community service, we awarded \$895,000 in grants to 126 employee-nominated organizations in 30 countries. Employees planned and participated in numerous community service projects throughout the month as well.

For example, in the U.K., volunteers worked with The Bike Project, a charity that takes in second-hand bikes, refurbishes them and donates them to those who need them. In Romania, volunteers worked with an organization called Rotary Probitas Club to improve local school playgrounds. And In South Africa, more than 200 volunteers lent their time and talent to 15 different projects. In one of the projects, employees at Ford’s Struandale Plant worked with the Association for the Physically Disabled to create a sewing skills development center to teach women how to sew and help them start their own businesses.

Since 2005, Ford employees have logged more than 1.7 million volunteer hours in total – bringing unique skills, passion and teamwork to grassroots organizations and nonprofits across six continents.

# \$64.3M

IN CHARITABLE CONTRIBUTIONS IN 2022

# \$2.3M

DONATED TO WORLDWIDE DISASTER RELIEF EFFORTS IN 2022

**“I chose to be a mentor because of how my life has been impacted by the mentors I’ve had. I had a mentor who saw more in me than I saw in myself. His only ask of me was for ‘each one to grab one,’ an African American proverb that refers to lifting others as we go. So, when the Ford First Gen opportunity came up, I raised both hands.”**

**PAM DUEROD, ATLANTA REGIONAL MANAGER FOR FORD CREDIT**

### STEPPING UP IN TIMES OF NEED

When disaster strikes, Ford is ready with humanitarian aid. Working with local nonprofits, dealers, aid organizations and our employee volunteer network, we donate funds, equipment and essential items to help meet urgent needs and support recovery and building efforts. In 2022, Ford donated \$2.3 million in disaster relief efforts. These donations helped unlock access to critical resources for many communities, including those impacted by a mass shooting in Buffalo, NY and flooding in Kentucky. When Hurricane Ian struck Florida in the fall of 2022, Ford activated a multi-pronged response that included a \$1 million donation to various organizations on the ground, as well as assistance transporting people to Salvation Army pop-up shelters. Ford also deployed and loaned F-150 PowerBoost Hybrid, F-150 Lightning trucks and Transit and E-Transit vans to help nonprofits power their relief efforts.

Ford and Ford Fund also provided much-needed humanitarian aid assistance to Ukraine. Ford Fund provided \$200,000 in relief funds, while Ford donated a fleet of 50 Ford Rangers and loaned another 25 vehicles to organizations supporting refugees and the movement of goods and people and their rescuers during the crisis.

Ford employees supported Ukrainians and host communities through various volunteer efforts. Volunteers from across Europe provided a hotline and translation services for refugees, distributed food and care packages and supported nonprofits helping refugees in their local markets. Ford Fund coordinated a massive humanitarian drive in the U.K. that resulted in more than 19.5 tons of in-kind donations including clothing, toiletries, batteries, sleeping bags, food and water, first-aid kits and more.

In several countries in the South American region, food insecurity has increased due to the COVID-19 pandemic. During 2021 and 2022, Ford distributed food and hygiene items to 10,000 families in vulnerable conditions in Argentina, Brazil, Chile, Colombia, Peru, and Venezuela.

### INVESTING IN FUTURE GENERATIONS

Since 2012, Ford Driving Dreams has been providing scholarship awards, contests and pep rallies to inspire youth and celebrate the benefits of staying in school, graduating on time and pursuing higher education.

In 2022, the program expanded to include a new pilot with Ford dealers in North Texas to fund auto technician scholarships. Not only are we

supporting students from under-resourced communities, but we are also addressing a key need for our industry by nurturing future talent.

Research shows that first-generation college students experience much higher dropout rates due to unique challenges they face as the first in their families to navigate college admissions, student life and financial aid. Ford Fund’s First Gen program works to overcome this by pairing female Ford leaders with first-generation college students at the historically black college, Spelman College, providing an opportunity for students to have access to mentorship and an expanded network of opportunities and resources.

[▶ VIEW A VIDEO TO SEE MORE ABOUT THE FIRST GEN PROGRAM](#)



### MOBILE DENTAL PROGRAM PROVIDES MULTIPLE BENEFITS

When our Motor City Kares program delivered two fully outfitted Ford Transit vans to Black-owned dental providers in 2022, it was a win-win. The mobile dental care program provides access to essential dental services in under-resourced communities while also enabling business ownership for entrepreneurs with historically limited access to capital.



▾ In addition to work by the Ford Fund, Ford employees around the world are committed to creating opportunities for their communities.



#### CREATING OPPORTUNITIES ON A GLOBAL SCALE

In addition to work by the Ford Fund, Ford employees around the world are committed to creating opportunities for their communities.

Ford Business Solutions (FBS) India is advancing a sustainable Corporate Social Responsibility model through initiatives targeting education, health and safety, inclusion, and community development.

The Rural Outreach Program for Engagement (ROPE) and Happy School Project support over 14,000 students and 550 teaching staff with initiatives including school renovation and refurbishment, scholarships for needy students, career guidance, and mentoring. The programs also pair around 60 children with special needs with special educators to improve their learning abilities and enable inclusive development. The Light House Project focuses on girls' education, nurturing their talent with knowledge, skills, and scholarships for nearly 200 girls.

FBS India also works with people with disabilities, providing wheelchairs, prostheses, counseling, mentorship and vocational training through the Right Wheelchair Project and Project Mobility.

In Thailand, Ford Thailand collaborated with Thai-Austrian (Sattahip) Technical College in an apprenticeship program called “Building for Thailand’s Future” to develop the skills and technical capability of the mechatronics workforce in Thailand. Scholarship winners receive academic training in classroom as well as on-the-job training and knowledge sharing from manufacturing experts that takes place at the Ford Thailand Manufacturing plant in Rayong and at participating Ford dealers. During the past five years, Ford has granted 91 scholarships with a total value of over THB 3,984,000.

Since Ford launched Conservation and Environmental Grants, China (CEGC) in 2000, CEGC has sought, recognized and supported outstanding environmental NGOs in China. By the end of 2022, CEGC had supported 506 environmental groups or organizations and provided grants of 32.6 million Chinese yuan in total. In 2022, CEGC continued its support for environmental NGOs in China by providing a total of 2 million yuan to 18 green NGOs.

► [READ MORE IN THE 2022 FORD MOTOR COMPANY FUND IMPACT REPORT](#)

► [READ MORE ABOUT FORD FUND'S WORK IN BLUEOVAL CITY ON P.26](#)

► [READ MORE ABOUT THE FORD FUND](#)

# 14,000

STUDENTS SUPPORTED BY THE HAPPY SCHOOL PROJECT

# 200

SCHOLARSHIPS FOR GIRLS PROVIDED BY THE LIGHT HOUSE PROJECT



# The Road to Sustainable Growth

Governance

# Overview

Good governance is about accountability, transparency, fairness and responsibility. With that framework in place, we are well positioned to respond to the changing global business environment and adjust our strategies as needed.



We are committed to creating accountability for setting, tracking and reporting progress against our goals, objectives, revenue and sustainability targets.

Our robust governance framework enables us to monitor our business, make long-term decisions and develop strategic inputs to the Board.

It also ensures that our business manages risk and operates in an ethical, transparent and accountable way.

Operating in concert with Ford+, our governance framework positions us to create value for our stakeholders as we work to build a better world.

“Ford has a reputation as an ethical and trusted company, and we are very proud of that. That reputation is earned by staying true to our values and acting with integrity, so we are committed to making it easy for people to understand and uphold our values when working at or with Ford. We clearly communicate our expectations in plain language in our online [Code of Conduct](#), and we encourage people to speak up and report any ethical concerns. Everyone doing their part ensures that we will continue to be a trusted company.”

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

# Financial Risks

Significant risk factors applicable to our business are outlined below.

## OPERATIONAL RISKS

### **Ford+**

Our long-term competitiveness depends on the successful execution of Ford+, our plan for growth and value creation. Ford+ is focused on delivering distinctive and increasingly electric products plus always-on customer relationships and user experiences.

### **Climate Change**

The risks and opportunities associated with climate change shape the way we do business, including our global carbon reduction strategy focused on reducing emissions from our vehicles, operations, and supply chain. Extreme weather events such as storms, floods, wildfires, or prolonged periods of extreme temperature can disrupt production, component supplies, and freight and logistics operations, while droughts can affect our access to water for our operations, especially in water-scarce areas. Additionally, climate-oriented regulations and initiatives may increase the cost of vehicles by more than the perceived consumer benefit, dampening margins.

### **Public Health Issues**

Our financial condition and results have been, and may continue to be, adversely affected by public health issues, including the health impacts of climate change and epidemics or pandemics such as COVID-19. The impacts of public health issues, including changes in consumer behavior, market downturns, disruptions in supply chains, and restrictions on business and individual activities, has periodically created significant volatility in the global economy. Disruption of our manufacturing operations could significantly impact our business.

### **Safety Recalls**

Government safety standards require manufacturers to remedy defects related to vehicle safety through safety recall campaigns. Our vehicles could be affected by defects that result in delays in launches, recall campaigns, or increased warranty costs.

### **Reliance on Suppliers**

We depend on our complex global supply chain to deliver components and raw materials for our vehicles. Our products contain components sourced from suppliers that, in turn, source components and raw materials from their suppliers. A shortage of key components, such as the semiconductor shortage, or a lack of raw materials, such as those necessary for EV batteries, can disrupt our operations.

### **Raw Materials Exposure**

Our ability to produce EVs is dependent upon the availability of raw materials for batteries. The demand and competition for such raw materials is increasing, and we may be unable to acquire sufficient amounts that are responsibly sourced, at reasonable prices, to meet our needs. We are party to, and expect to continue to be party to, long-term contracts for the purchase of raw materials, which, subject to certain conditions, obligate us to purchase set amounts of materials, typically based on the market price at the time of delivery. Accordingly, we are subject to the risks associated with lower future demand for such materials as well as costs that fluctuate and are difficult to accurately forecast.

### **Cybersecurity Risks**

As we develop and produce vehicles with increased connectivity, operating and security systems are more at risk from potential disruptions. We rely on information technology networks and systems, including in-vehicle systems and mobile devices to process, transmit, and store vital data. Despite data privacy and security measures, we are at risk of outages, cyberattacks, security breaches, or natural events, all of which could impact operational systems, compromise sensitive or personal information, or negatively affect the performance and safety of our vehicles.

### **Workforce Stability**

Our ongoing success depends on our ability to continue to recruit and retain a talented and diverse workforce that is highly skilled in engineering, software, technology, and other areas. Global competition for such talent is intense, with potential employees increasingly placing a premium on various intangibles, such as working for companies with a clear purpose and strong brand reputation, flexible work arrangements, embracing sustainability and DEI initiatives. The loss of existing employees or an inability to recruit new employees or reskill or upskill existing employees, particularly with the introduction of new technologies, could have an adverse effect on our business.

## MACROECONOMIC, MARKET AND STRATEGIC RISKS

### **Market Competition**

Our products and services are subject to market acceptance as well as competition from others in the automotive, digital and software services industries. Although we conduct extensive market research before launching a vehicle or service, many factors within and outside our control can affect their success. For example, a shift in consumer preferences away from larger, more profitable ICE vehicles due to rising fuel prices, a decline in the construction industry, or government actions or incentives, could adversely affect our financial condition or results of operations. Further, new offerings, including those related to EVs and autonomous driving technologies, may present technological challenges that could be costly to implement and overcome. If the market for electrified vehicles or our services does not develop at the rate we expect or if consumers prefer our competitors' vehicles or services, there could be an adverse effect on our business.

### **Geopolitics**

With our global footprint and the increasing interconnectedness of the global economy, a geopolitical crisis such as a war or changes to/withdrawals from existing trade agreements could have an immediate and material impact on our results. Governments have considered applying tariffs on automobiles, parts, and other materials that could disrupt existing supply chains, impose additional costs on our business, affect demand for our products, and make Ford less competitive. Further, our business could be impacted by governmental sanctions or export controls.

### **Inflation/Market Risk**

We and our suppliers are exposed to inflationary pressure and a variety of market risks, including the effects of changes in commodity prices, foreign currency exchange rates, and interest rates. Such risks cannot always be predicted, hedged, or offset with price increases. Significant changes in commodity prices, exchange rates, interest rates, or other costs could have a substantial adverse effect on our business.

## **FINANCIAL RISKS**

### **Market Disruption**

Our business is susceptible to credit rating downgrades, changes in interest rates, market volatility, market disruption, and regulatory requirements, which may impact our ability to obtain unsecured funding at a reasonable cost. Moreover, if these events occur, Ford Credit may reduce the amount of receivables it purchases or originates because of funding constraints. Rising interest rates in particular may impact Ford Credit's ability to source funding and offer financing at competitive rates, which could reduce its financing margin.

### **Government Incentives**

We receive economic benefits from national, state, and local governments around the world in the form of grants, loan subsidies, and tax abatements or credits. These incentives encourage manufacturers to establish or increase investment, workforce, and/or production. A decrease, expiration, or clawback of such incentives could impact our financial condition significantly. Moreover, the U.S. Inflation Reduction Act (IRA) provides financial incentives to increase the domestic supply and consumer adoption of EVs. Our ability to produce EVs that are eligible for IRA tax credits, and the availability of such credits for our customers, could significantly impact demand for our EVs, our financial condition, and results of operations.

### **Credit**

Ford Credit could experience higher credit losses, lower residual values, or higher return volumes for leased vehicles than expected. Credit risk (the possibility of loss from a customer's or dealer's failure to make payments according to contract terms) is heavily dependent upon economic factors such as unemployment, consumer debt service burden, personal income growth, and used car prices.

### **Pension and Other Post-retirement Plans**

The measurement of our obligations, costs, and liabilities associated with benefits related to our pension and other post-retirement employee benefit plans requires us to use assumptions to estimate the present value of projected future payments to all participants. If actual results are less favorable than our assumptions, we may recognize a substantial remeasurement loss in our results. In addition, if our cash flows and capital resources were insufficient to meet our post-retirement obligations, we could be forced to reduce or delay investments and capital expenditures, suspend dividend payments, or seek additional capital.

## **LEGAL AND REGULATORY RISKS**

### **Litigation**

We spend substantial resources complying with safety, emissions, and other standards and regulations. We cannot ensure, however, that employees or individuals affiliated with Ford will not violate these regulations. Moreover, compliance with governmental standards does not necessarily prevent individual or class action lawsuits, which can entail significant cost and risk, including the imposition of compensatory and punitive damages or injunctive relief.

### **Product Modifications**

The automotive industry is subject to safety, emissions, fuel economy, and other regulations that govern product characteristics, and these can differ regionally, nationally, or within a country. New regulations are continuously being proposed to address environmental concerns (including those relating to global climate change and its impact), vehicle safety, and energy independence, and the regulatory landscape can change quickly. To comply, we may need to substantially modify product plans.

### **ESG Disclosure**

The EU Sustainable Finance Disclosure Regulation (SFDR) came into force in 2021, imposing environmental, social, and governance (ESG) disclosure and reporting requirements on financial services participants, including investment firms and fund managers. The SFDR introduces disclosure obligations at both a firm and product level, requiring asset managers to disclose how sustainability risks are incorporated in their decision-making or outline the environmental or social benefits of certain products.

► [READ MORE IN THE FORM 10-K](#)

# Transparency, Business Ethics and Integrity

**Ford is recognized around the world as a leader in corporate ethics and integrity. We are proud of that accomplishment – and we don't take it for granted. Our approach to ethics, integrity and transparency goes beyond compliance.**

We lead with our values, and they permeate through all levels of our company. We strive to act with transparency, integrity and honesty. It's the foundation of the trust we build with our employees, our customers and suppliers, our shareholders, and our communities.

We are committed to complying with existing laws, regulations and policies. By providing clear policies, effective communication, and engaging training, we give our employees the tools they need to do the right thing.

As we look ahead, we are committed to maintaining and implementing state-of-the-art corporate governance policies and practices and ensuring they are reflective of current rules and regulations.

## UPHOLDING THE HIGHEST LEVELS OF INTEGRITY

It takes decades to become known for integrity. We have been at it for 119 years – and we are not taking our foot off of the accelerator. By providing appropriate training and communications tools, our Compliance, Ethics and Integrity Office ensures that our people are equipped to comply with legal obligations and policies that maintain the highest levels of integrity.

### **Regular and Open Communication**

Clear and open communication is a fundamental component of our corporate governance framework. Ford outperforms our industry as we work to maintain open communication channels that include monthly reports on vehicle production, dealer inventory and retail sales. This is in comparison to the quarterly reporting others in our industry conduct.

We believe that it's important that we meet our customers where they are – and in many cases that's on social media. We use Ford Motor Company corporate accounts and Chief Executive Officer Jim Farley's Twitter and LinkedIn accounts to share information on a regular basis.

## ADHERING TO OUR CODE OF CONDUCT

### **Employee Code of Conduct**

It's important that our employees understand what is expected of them when it comes to business ethics and integrity. Equally important is that our customers, suppliers and other stakeholders understand our standards and hold us accountable to them. That's how we live up to our reputation as a global leader in corporate ethics and social responsibility.

In 2021, we updated our [Code of Conduct](#), simplified it, and made it more accessible. We honed down 69 policies to 17 easy-to-understand commitments that include Ford's [We Are Committed to Protecting Human Rights and the Environment](#) policy. Our commitment to transparency is evident throughout the policy: its language is simpler and it clearly delineates what it means to work at and do business with Ford. Available in 11 languages, our Code of Conduct covers important topics including human rights, the environment, privacy and lawful business practices – as well as information on how to report violations.

### **Supplier Code of Conduct**

Thousands of companies around the globe are involved in building Ford vehicles. As the focus on human rights and climate change becomes sharper, it's important that we hold our suppliers to the same high standards we require of ourselves. In 2021, we launched our [Supplier Code of Conduct](#) to formalize the standards we'll work with our suppliers to achieve. Our Supplier Code of Conduct applies not only to the company's Tier 1 suppliers, but cascades through the supply chain to their suppliers as well. It is available in eight languages and is accessible on our corporate website to suppliers, our employees and the general public.

Our Supplier Code of Conduct mandates that our suppliers maintain responsible business practices. Suppliers are required to protect and respect human rights, protect the environment and responsibly source materials. The code also mandates that they conduct business free from bribery and corruption, maintain effective privacy and cyber-security practices and comply with applicable trade and customs rules.

### **Anti-Bribery and Anti-Corruption**

We maintain the highest ethical standards wherever we operate. With operations around the world, it's important that our facilities comply with a wide range of national laws and governmental enforcement practices with regard to bribery and corruption, regardless of where they are located. Bribery and corruption are forbidden, even in locations where they may be tolerated or condoned.

## COMPLIANCE TRAINING

Our robust and comprehensive compliance training supports our high standards of ethical conduct. Mandatory online training courses for all Ford salaried full-time, part-time and agency workers, including an annual Code of Conduct course, ensure our policies are understood and reinforce their importance. We periodically refresh and review the courses to keep the content relevant and appropriate.

## REPORTING VIOLATIONS

Our compliance program is designed to ensure that people can confidentially report known or potential violations of the law or of our policies. Team members can report violations directly to Human Resources or the Compliance, Ethics and Integrity Office as well as the Office of the General Counsel. Violations can also be reported using the SpeakUp reporting mechanism, telephone hotlines, websites, or email, some of which allow for anonymous reporting. External stakeholders may report by emailing [SpeakUp@ford.com](mailto:SpeakUp@ford.com). A cross-functional committee reviews allegations and oversees any investigations and subsequent corrective or disciplinary actions.

For human rights and environmental issues involving suppliers, Ford has an external site to report supplier grievances. The external site is available in five different languages and provides suppliers an opportunity to report feedback. Employees of our suppliers can also provide feedback and file grievances directly via the Responsible Business Alliance (RBA) Worker Voice app.

# Data Protection, Privacy and Cyber Security

**Data protection, privacy and security goes beyond compliance. It is the foundation for customer trust at Ford – particularly in the new era of connected ecosystems. We take that trust seriously as we work to deliver innovative products and a stellar experience.**

Data privacy is a key component of our software-driven businesses. Unsurprisingly, data privacy, which focuses on personal information and how it is collected, stored, used, managed and shared has become increasingly important to our customers, our employees and our business. That’s why we view data privacy as a strategic issue, one that encompasses our relationship with our customers and how we manage privacy as a business asset.

## DATA PRIVACY MODERNIZATION

Ensuring our data privacy program is up to date is of paramount importance. The Privacy Office led an initiative in 2022 to modernize our data privacy program and align it to the National Institute of Standards and Technology (NIST) privacy framework. We are:

- Developing a prioritized roadmap of risk remediation and management activities
- Identifying key systems and places where personal information resides, processes that involve personal information, high-risk processes and vendors
- Establishing governance posture including roles, responsibilities, policies, procedures and guidelines
- Implementing technology and processes to operationalize the modernization program
- Establishing processes to maintain risk identification, controls and treatment plans

## DATA PRIVACY POLICY CHANGES LEAD TO SAVINGS AND BETTER PRODUCTS

Data privacy impacts the bottom line and improves the quality of Ford products. Ford’s Privacy Office has helped the business realize significant operational savings in 2022.

The internal value business achieved cost avoidance for product quality, reductive design, and process efficiencies as of November 2022. The Privacy Office, Global Data Insight & Analytics (GDI&A) and the Office of General Counsel (OGC) contributed by streamlining data access through policy simplification, which helped Internal Value use data to improve Ford products and reduce costs.

We also updated internal Ford policy to streamline data access for certain types of vehicle data. This will enable GDI&A to apply more automation.

## STRENGTHENING OUR GLOBAL DATA PRIVACY INITIATIVES

We continue to adhere to the Automotive Consumer Privacy Protection Principles developed by the Alliance for Automotive Innovation. We maintain our engagement with the Automotive Cybersecurity Industry Consortium, a collaboration formed by the auto industry, research organizations, and government to strengthen cybersecurity in the automotive sector. We are also a founding member of the Information Sharing and Analysis Center, which gathers, analyzes, and shares information to combat cyber-related threats and weaknesses.

We continue to maintain an industry-leading cybersecurity insurance program with many of the world’s largest and most respected insurance companies.

**“Enabling ethical and data-driven innovation deepens Ford’s ‘always-on’ customer relationships while improving the lives of Ford owners, drivers, passengers, employees, and the general public.”**

**REBECCA PAGANI, CHIEF PRIVACY OFFICER**

# Government Regulations, Policy and Engagement

**As a purpose-driven company, we match our advocacy policy with our values. As a global company it's imperative that Ford engage with governments and policy makers to ensure that our positions are represented and our actions are recognized. Consistent engagement on our part will help ensure that we have a voice in shaping and complying with new regulations and policies that impact our employees, our customers and our shareholders.**

Ford participates openly and transparently in the political process to support policies on the local, state, national, and international level that are economically, environmentally, and socially sustainable for our company, our customers, and their communities. We work with the United States Congress and the White House, as well as international governments, on issues including trade, fuel economy, autonomous vehicles, mobility, and electric vehicles. We advocate for consistent policies at all levels to help us achieve our business, environmental, and employment objectives.

We encourage all employees to participate in political and governmental affairs as individual citizens, while fully respecting their right to use personal time as they choose and to decide the extent and direction of their political activities.

It's important that our management team keeps informed on governmental matters affecting Ford's interests. Where appropriate, they are expected to help formulate and present company positions on relevant public issues. They also are expected to contribute to fulfilling Ford's responsibilities as a corporate citizen, including participation in constructive governmental activities on behalf of the company.

Ford does not contribute to political candidates or political organizations; nor does the company employ its resources to help elect candidates to public office, even when permitted by law. Ford does not take a position for partisan political purposes, that is, specifically for the purpose of advancing the interest of a political party or candidate for public office. However, with the approval of the Office of the Chief Executive, contributions may be made to support or oppose a state or local ballot proposal if the issue is of significant interest or importance to Ford provided that such contributions are permitted by law. Contributions not earmarked for individual candidates or political organizations are distributed at the discretion of Ford's Political Contributions Committee.

Our advocacy efforts are guided by our Chief Policy Officer.

## TRADE ASSOCIATIONS AND MEMBERSHIPS FOCUSING ON U.S. POLICY ISSUES

To advance our voice on key issues, we collaborate with a broad range of coalitions, industry groups, and trade associations where we operate. We work with our partners to develop and promote sensible policies that benefit our company, our industry, and society. These organizations often bring diverse viewpoints to the debate, and sometimes their views are not shared by Ford. When necessary, we have exercised our right to make our own position clear and at times have taken an alternative path.

### **Climate Change**

We are committed to developing and promoting climate policies that benefit our customers, company, industry, and society. As a member of trade associations and coalitions, we work to make our position known and collaborate with others. We leverage our memberships to move these organizations toward positions more aligned with Ford's views on climate. We will continue to make decisions based on what's best for our customers, the environment, and our business.

Through active participation, we can encourage groups to align with our progressive climate change strategy, shape policy and drive the industry to change.

► [READ MORE IN THE 2022 U.S. POLITICAL ENGAGEMENT REPORT](#)

### **Trade Associations and Memberships**

Ford supports a broad range of trade associations and coalitions to enhance our understanding of, and advocacy for, U.S. policy issues. These include, but are not limited to:

- 5G Automotive Association (5GAA)
- American Automotive Policy Council (AAPC)
- Alliance for Automotive Innovation
- Autonomous Vehicle Industry Association (AVIA)
- Business Environmental Leadership Council
- Center for Climate and Energy Services
- Electric Drive Transportation Association (EDTA)
- National Association of Manufacturers (NAM)
- National Safety Council
- NGVAmerica

- Partnership for Transportation Innovation Opportunity (PTIO)
- U.S. Chamber of Commerce

As part of this work, Ford also conducts internal reviews of associations' lobbying positions, noting any discrepancies with our positions. The results of this review are shared with management. If an association's position does not align with our criteria, we respond appropriately, at times advocating for our position independently.

### FORD BLUE TABLE FORUM

Ford established the Blue Table Forum, a stakeholder advocacy program focused on creating and building a trusted community of organizational and institutional stakeholders from a diverse group of NGOs, nonprofits and academic institutions. The program goal is to initiate a dialogue around critical issues faced and how we can work together to build a zero-emissions transportation future. To-date, the program has engaged over 75 influential thought-leaders across 50 organizations with regional, national and global representation and a diverse stakeholder network of over 70 million including members, donors, volunteers, and partner organizations.

### POLICY FRAMEWORK

Under the Chief Policy Officer and General Counsel's direction, a new policy framework was created to advance Ford's business objectives while vindicating the company's values. The framework leverages the entire policy team, which is comprised of:

- Environmental and Safety Compliance
- Government Affairs
- Office of General Counsel
- Privacy
- Security

This structure empowers the teams to function as one, contributing the expertise of their respective professional disciplines, unified throughout the policy organization. Ford's ambitious Ford Policy Agenda, which sets forth detailed policy missions to defend and advance Ford Motor Company's interests, reflects this integration.

# Accountable and Inclusive Governance

Our core mission of developing vehicles, technologies, and services that improve people’s lives has never been more important. As the world continues to face enormous challenges, we strongly believe that Ford can make a positive impact.

Our corporate governance practices guide us as we manage our business, drive performance, and create value responsibly and ethically. These processes and systems serve as the framework for delivering on our sustainability strategy and integrating sustainability issues into our business decisions while positioning us to capitalize on future opportunities.

► [READ MORE IN THE MOST RECENT PROXY STATEMENT](#)

Our Board of Directors is guided by our Corporate Governance Principles, our Code of Business Conduct and Ethics for the Board of Directors, and charters for each Board committee.

The Code of Business Conduct and Ethics was developed to serve as guiding principles and practices for directors to promote the Board’s effective functioning and to maintain the trust of our stakeholders. This Code is intended to focus the Board and each director on areas of ethical risk, provide guidance to help them recognize and deal with ethical issues, provide mechanisms to report unethical conduct, and help foster a culture of honesty and accountability. Each director must comply with the letter and spirit of this Code.

► [READ MORE ABOUT GOVERNANCE & POLICIES ON THE WEBSITE](#)

### GOVERNANCE PRINCIPLES AND PRACTICES

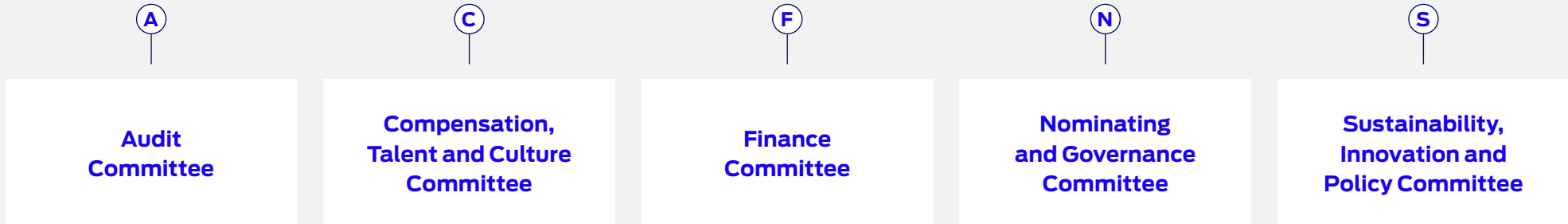
Solid principles of corporate governance are key to maintaining our investors’ and our stakeholders’ trust in our company’s direction, relationships and goals. Our corporate governance practices promote the effective functioning of our Board, its committees and the Company.

#### Corporate Governance Principles

The Board has adopted a set of corporate governance principles, which may be found at [our corporate website](#). These principles include: a limitation on the number of boards on which a director may serve, qualifications for directors, director orientation and continuing education, and a requirement that the Board and each of its committees perform an annual self-evaluation.




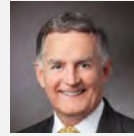


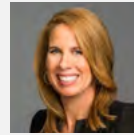


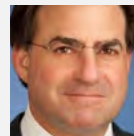

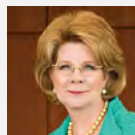
### BOARD OF DIRECTORS COMPOSITION

#### BOARD COMMITTEES



#### BOARD MEMBERS

= Chair

 <b>Kimberly A. Casiano</b> A N S	 <b>William W. Helman IV</b> F N <b>S</b>	 <b>John L. Thornton</b> C F N
 <b>James D. Farley, Jr.</b>	 <b>Jon M. Huntsman, Jr.</b> S	 <b>John B. Veihmeyer</b> A N
 <b>Alexandra Ford English</b> F S	 <b>William E. Kennard</b> F N S	 <b>Lynn Vojvodich Radakovich</b> C N S
 <b>Henry Ford III</b> F S	 <b>John C. May</b> C N F	 <b>John S. Weinberg</b> C F N S
 <b>William Clay Ford, Jr.</b> F S	 <b>Beth E. Mooney</b> A N	

## Accountable and Inclusive Governance – continued

Our corporate governance principles, along with the charters of the Audit Committee; the Compensation, Talent and Culture Committee; the Sustainability, Innovation and Policy Committee; the Finance Committee; and the Nominating and Governance Committee, provide the framework for the governance of Ford Motor Company.

### Board Role and Responsibilities

The Board continuously reviews our governance practices, assesses the regulatory and legislative environment, and adopts the governance practices that best serve the interests of our shareholders.

The Board is elected by and responsible to Ford’s shareholders. Ford’s business is conducted by its employees, managers, and officers, under the direction of the Chief Executive Officer (CEO) and oversight of the Board, to enhance the long-term value of the Company for its shareholders.

The Board of Directors has chosen to separate the roles of CEO and Chair of the Board of Directors, which allows the CEO to focus on leading the organization to deliver product excellence, while the Chair leads the Board in its pursuit to provide the Company with direction on Company-wide issues such as sustainability, mobility, and stakeholder relationships.

The Board of Directors monitors the performance of the CEO and other members of senior management to ensure that the long-term interests of the shareholders are being served.

Diversity of skills, experience, race and ethnicity, and gender strengthens our competitive advantage and reflects the customers we serve, as well as our employees. Together, our Board has a broad set of skills and experience that encompasses manufacturing, marketing, CEO leadership, international, government, risk management, finance and technology. In addition, all of our Board members have backgrounds in sustainability and related matters. Their experience with environmental/climate change, talent and culture, and social responsibility initiatives enables us to address key shareholder concerns regarding sustainability and corporate responsibility. Of our 14 Board members, four are women, one is Black/ African American and one is Hispanic.

For additional information on the unique qualifications and demographic backgrounds of our Board members, refer to the Director Skills and Diversity Matrix and director biographies included in our most recent [Proxy Statement](#).

### Changes to the Board in 2022

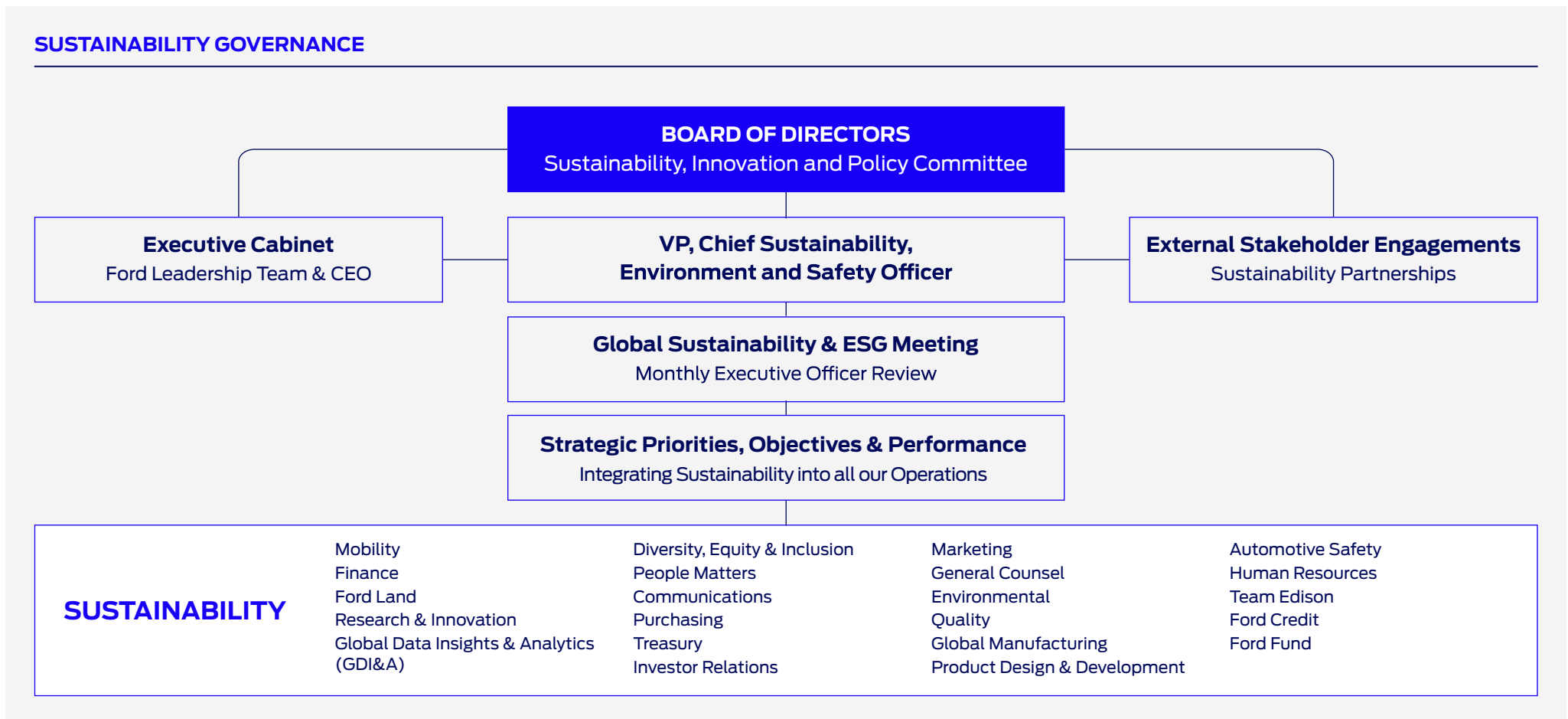
The size of the Board was reduced from 15 directors to 14 directors when Anthony F. Earley, Jr. retired from the Board at the time of our May 2022 Annual Meeting of Shareholders. John Thornton replaced Mr. Earley as the Lead Independent Director and Lynn Vojvodich Radakovich replaced Mr. Earley as the Chair of the Compensation, Talent and Culture Committee.

[▶ READ MORE ABOUT OUR BOARD OF DIRECTORS ON THE WEBSITE](#)

### Corporate Governance Practices

Sound corporate governance practices and trust go hand in hand. Ford’s adoption of the following practices has played a critical role in creating the world’s most trusted company:

- Annual Election of All Directors
- Majority Vote Standard: Each director must be elected by a majority of votes cast
- Independent Board: The majority of our directors are independent
- Lead Independent Director: Ensures management is adequately addressing the matters identified by the Board
- Independent Board Committees: Each of the Audit; Compensation, Talent and Culture; and Nominating and Governance Committees is made up entirely of independent directors
- Committee Charters: Each standing committee operates under a written charter that has been approved by the Board and is reviewed annually



## Accountable and Inclusive Governance – continued

- Independent Directors Meet Regularly Without Management and Non-Independent Directors
- Regular Board and Committee Self-Evaluation Process: The Board and each committee evaluates its performance each year
- Mandatory Deferral of Compensation for Directors: In 2022, approximately 68% of the annual Board membership fee (not inclusive of additional fees earned for service as Lead Independent Director or Chair of a Committee) was mandatorily deferred into Ford restricted stock units, which strongly links the interests of the Board with those of shareholders
- Separate Chair of the Board and CEO: The Board of Directors has chosen to separate the roles of CEO and Chair of the Board of Directors
- Confidential Voting at Annual Meeting
- Special Meetings: Shareholders have the right to call a special meeting
- Shareholders May Take Action by Written Consent
- Strong Codes of Ethics: Ford is committed to operating its business with the highest level of integrity. It has adopted codes of ethics that apply to all directors and senior financial personnel, and a [Code of Conduct](#) that applies to all employees
- Hedging and Pledging Policies: Officers are prohibited from hedging their exposure to, and limited in pledging, Ford common stock

### DIRECTORS' REMUNERATION

Effective as of January 1, 2017, the Board of Directors agreed that the following compensation will be paid to non-employee directors of the Company:

- Annual Board membership fee: \$315,000
- Annual Lead Independent Director fee: \$50,000
- Annual Audit Committee chair fee: \$30,000
- Annual Compensation, Talent and Culture Committee chair fee: \$25,000
- Annual other committee chair fees: \$20,000

Approximately 68% of the Annual Board membership fee is paid in Restricted Stock Units (RSUs), and certain directors choose to receive all or a portion of their fees, in addition to the mandatory portion, in RSUs.

► [READ MORE IN THE DIRECTOR COMPENSATION TABLE IN THE MOST RECENT PROXY STATEMENT](#)

### SUSTAINABILITY GOVERNANCE

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

The Sustainability, Innovation and Policy Committee reviews and advises on the Company's pursuit of innovative policies and technologies that promote product safety, improve environmental and social sustainability, and seek to enrich our customers' experiences, increase shareholder value, and lead to a better world. The committee is responsible for assessing the Company's progress on strategic economic, product safety, environmental, and social issues, as well as the degree to which sustainability principles have been integrated into various skill teams.

The Compensation, Talent and Culture Committee reviews and advises on key people-related business strategies, including leadership succession planning, culture, DEI, and talent development programs.

### MANAGEMENT PROCESSES

The management processes, systems, committees, and groups outlined below serve as guardrails as we work to improve our sustainability performance, act ethically, and take responsibility for our impact on society, our planet, and communities across the globe.

### BOARD'S ROLE IN RISK MANAGEMENT

The oversight responsibility of the Board and its committees is supported by Company management and the risk management processes that are currently in place. Ford has extensive and effective risk management processes, relating specifically to compliance, reporting, operating, and strategic risks. These include:

- Compliance Risk encompasses matters such as legal and regulatory compliance (for example, Foreign Corrupt Practices Act, environmental, OSHA/safety, etc.).
- Reporting Risk covers Sarbanes-Oxley compliance, disclosure controls and procedures, and accounting compliance.
- Operating Risk addresses the myriad of matters related to the operation of a complex company such as Ford (for example, quality, supply chain, sales and service, financing and liquidity, product development and engineering, labor, etc.).

- Strategic Risk encompasses somewhat broader and longer-term matters, including, but not limited to, technology development, environmental and social sustainability, capital allocation, management development, retention and compensation, competitive developments, and geopolitical developments.

We believe that key success factors in risk management at Ford include a strong risk analysis tone set by the Board and senior management, which is shown through their commitment to effective top-down and bottom-up communication (including communication between management and the Board and committees), and active cross-functional participation among the Business Segments and Skill Teams.

We have institutionalized a regular Forecast, Controls and Risk Review and Special Attention Review process where the senior leadership of the Company reviews the status of the business, the risks, and opportunities presented to the business (in the areas of compliance, reporting, operating, and strategic risks), and develops specific plans to address those risks and opportunities.

The Enterprise Risk Management process adopted by the Company identifies the top critical enterprise risks through a survey process of senior management and the Board of Directors. Once identified, each of the top risks is assigned an executive risk owner who is responsible to oversee risk assessment, develop mitigation plans, and provide regular updates. The Enterprise Risk Management process also engages Business Segments and Skill Teams to determine which of the enterprise risks are most relevant to their specific objectives, and identify any additional risks that can be managed at a lower level in the organization. All identified Enterprise Critical Risks are evaluated for their exposure to related geopolitical risk and climate change impacts. The Audit Committee and Board annually review the process to update the list of critical risks and monitor risk movement and emerging trends, and the Enterprise Risk Management team also reviews the annual survey results with outside advisors to ensure the Company assessment is up to date with external risk developments.

As noted above, the full Board of Directors has overall responsibility for the oversight of risk management at Ford and oversees operating risk management with reviews at each of its regular Board meetings. The Board of Directors has delegated responsibility for the oversight of specific areas

Accountable and Inclusive Governance – continued

of risk management to certain committees of the Board, with each Board committee reporting to the full Board following each committee meeting. The Audit Committee assists the Board of Directors in overseeing compliance and reporting risk and the Enterprise Risk Management process itself. The Sustainability, Innovation and Policy Committee assists the Board of Directors in overseeing environmental and social sustainability risks, while the Compensation, Talent and Culture Committee assists the Board of Directors in overseeing risks related to compensation and people-related business strategies, including leadership succession and culture, diversity, and inclusion. The Board and the appropriate committees also periodically review other policies related to personnel matters, including those related to sexual harassment and anti-retaliation policies related to whistleblowers. The Board; the Sustainability, Innovation and Policy Committee; the Compensation, Talent and Culture Committee; the Finance Committee; and the Audit Committee all play a role in overseeing operating and strategic risk management.

The scope and severity of risks presented by cyber threats have increased dramatically, and constant vigilance is required to protect against intrusions. We take cyber threats very seriously and regularly audit our cyber security capabilities. These audits are a useful tool for ensuring that we maintain a robust cyber security program to protect our investors, customers, employees, and intellectual property. The Audit Committee receives updates several times per year from the Chief Information Security Officer regarding technology and cyber security risk and conducts regular reviews of our cyber security practices, with report outs to the Board as appropriate. As part of its risk assessment procedures, the Board reviews relevant cyber security and information technology matters at least twice annually.

We also maintain an industry-leading cyber security insurance program with many of the world’s largest and most respected insurance companies. Additionally, we are a founding member of the Board of the Automotive Information Sharing and Analysis Center. Our current seat on that board ensures that we preserve relationships that help to protect ourselves against both enterprise and in-vehicle security risks.

► [READ MORE IN THE BOARD OF DIRECTORS COMMITTEE CHARTERS](#)

MANAGEMENT PROCESSES

<b>Board Committees</b>	<p><b>Sustainability, Innovation and Policy Committee</b></p> <ul style="list-style-type: none"> <li>• Meets at least three times a year</li> <li>• Primary responsibility for assessing the Company’s progress on strategic economic, product safety, environmental and social issues, as well as the degree to which sustainability principles have been integrated into the various skill teams</li> <li>• Reviews and advises on the Company’s pursuit of innovative policies and technologies that promote product safety, improve environmental and social sustainability, and seek to enrich our customers’ experiences, increase shareholder value and lead to a better world</li> <li>• Reviews the Integrated Sustainability and Financial Report Summary as well as any Company initiatives related to sustainability and innovation</li> </ul> <p>► <a href="#">Read the Charter of the Sustainability, Innovation and Policy Committee</a></p> <p><b>Other Board committees:</b> Audit; Compensation, Talent and Culture; Nominating and Governance; and Finance</p>
<b>Executive Management</b>	<p><b>Vice President, Chief Sustainability, Environment and Safety Officer</b></p> <ul style="list-style-type: none"> <li>• Primary responsibility for sustainability issues</li> <li>• Oversees the Sustainability and Vehicle Environmental Matters group, the Environmental Quality Office, the Vehicle Homologation and Compliance group and the Automotive Safety Office</li> <li>• Leads a multi-disciplinary executive-level team that oversees actions in response to our sustainability strategies and integration and issues related to our <a href="#">We Are Committed to Protecting Human Rights and the Environment policy</a></li> </ul> <p><b>Other executive and group vice presidents</b> across our functional areas also have responsibility for sustainability-related issues. These include our Chief People and Employee Experience Officer and our Chief Diversity Officer</p>
<b>Function Areas</b>	<p><b>Sustainability and Vehicle Environmental Matters</b></p> <ul style="list-style-type: none"> <li>• Coordinates our Company-wide sustainability strategy and activities</li> <li>• Leads our sustainability reporting and stakeholder engagement</li> <li>• Collaborates with other functional areas and skill teams to integrate sustainability throughout the Company</li> </ul>

OVERSIGHT OF RISK MANAGEMENT

	<b>Compliance and Reporting</b>	<b>Operating and Strategic</b>
<b>Ford Board Oversight</b>	Audit Committee	Sustainability, Innovation and Policy Committee Compensation, Talent and Culture Committee Finance Committee Audit Committee
<b>Ford Management Day to Day</b>	Compliance Reviews Sarbanes-Oxley Compliance Internal Controls Disclosure Committee	Business Segments and Skill Teams Forecast, Controls and Risk Review Special Attention Review Product, Strategy and People Forums

# Reporting Scope, Boundaries and Data Assurance

## 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 2022 operations and vehicles. 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.

For this report, we have followed the International <IR> Framework of the International Integrated Reporting Council (IIRC) to provide a cohesive and comprehensive approach to our corporate reporting. However, we remain flexible and open to new approaches as the dynamic reporting environment continues to evolve.

## 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, Innovation and Policy Committee of the Board of Directors.

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

The consolidated financial statements in our [Form 10-K](#) have been audited by our independent registered public accounting firm.

Ford's 2022 greenhouse gas inventory (including Scope 1, 2 and 3) is third-party verified by an organization with a Certification of Accreditation to ISO 14065:2013 by the ANSI National Accreditation Board and will become available at a later date. In addition, some manufacturing operations, as required by regulation, are also third-party verified following the respective regulatory requirements, such as EU-ETS. Find out more about EU-ETS in our [CDP Climate Response](#), section 11.1.

Ford reports facility carbon dioxide equivalent (CO<sub>2</sub>e) emissions to national emissions registries or other authorities in the U.S., Canada, Mexico, South Africa, 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 and an internally developed strategies management tool, 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.



# Performance Data

# Performance Data

Performance Data is organized in alignment with our top five material topics. Read more about our material topics in Appendix 1.

## Financial Highlights

### Financial Performance

	2020	2021	2022
Revenue	\$127.1B	\$136.3B	\$158.1B
Net income/(loss) attributable to Ford Motor Company	\$(1.3)B	\$17.9B	\$(2.0)B
Company adjusted EBIT <sup>3</sup>	\$2.5B	\$10.0B	\$10.4B
Company adjusted EBIT margin <sup>3</sup>	2.0%	7.3%	6.6%
Company adjusted free cash flow <sup>3</sup>	\$1.3B	\$4.6B	\$9.1B
Adjusted earnings per share <sup>3</sup>	\$0.36	\$1.59	\$1.88
Income taxes paid/refunded	\$421M	\$568M	\$801M

### Product Innovation

	2020	2021	2022
Global utility patents issued	3,782	3,286	2,883
US utility patents issued to Ford and subsidiaries	2,075	1,669	1,327
Patents in EV technology	Not Reported	Not Reported	456

### Vehicles Sold Globally

	2020	2021	2022
Wholesales (Primary Sales to Dealerships)	4.187M	3.942M	4.231M
Retail (Primary Sales by Dealers)	4.5M	4.2M	4.0M
Vehicles Manufactured	4.16M	3.92M	4.25M

### Spanish Taxonomy Key Performance Indicators<sup>26</sup>

	2022
Turnover eligibility	73%
CapEx eligibility	100%
OpEx eligibility	N/A

### ESG Ratings

In 2022, Ford increased engagement on third party ESG ratings to identify gaps and opportunities. The ratings of primary focus included Sustainalytics, MSCI, ISS and Bloomberg. Compared with prior years, Ford's assessments in these ratings have improved.

Ford continues to be an industry leader in CDP Climate & Water, Bloomberg Gender Equality Index (GEI) and the Corporate Human Rights Benchmark.

	2020	2021	2022	
<b>MSCI – ESG Rating</b>	B	B	BB	▲
<b>Sustainalytics – ESG Risk Rating</b>	31.5 (high risk)	29.9 (medium risk)	22.3 (medium risk)	▲
<b>ISS – ESG Corporate Rating</b>	C	C	C+ (Prime Status)	▲
<b>BLOOMBERG® – ESG Disclosure Score</b>	67.64	72.88	74.04	▲
<b>CDP Climate   CDP Water</b>	A   A	A   A	A   A	Industry Lead
<b>Bloomberg Gender-Equality Index (GEI)</b>	70.9	80.11	86.92	Industry Lead
<b>Corporate Human Rights Benchmark (CHRB)</b>	41.5	N/A	39*	Industry Lead

\*The 2022 Corporate Human Rights Benchmark methodology was updated with new topics and increased performance emphasis.

This table was created by Ford Motor Company and all ratings are as of 3/31/2023.

**ESG Rating Scales:**  
 MSCI CCC → AAA (AAA is better); Sustainalytics 0 → 50 (lower is better); ISS ESG Corporate Rating D- → A+(A is better); Bloomberg ESG 0 → 100 (higher is better) CDP F → A (A is better); Bloomberg GEI 0 → 100% (higher is better); CHRB 0 → 100 (higher is better).

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**ISS Prime Status & Threshold**  
 Companies are awarded Prime Status if the overall ESG Corporate Rating letter grade meets or exceeds the industry-specific Prime threshold defined by ISS ESG's Industry Classification Matrix. The Prime threshold reflects the overall magnitude of an industry's risk exposure and footprint, and is C+ for the majority of industries, B- for high ESG risk industries and C for industries with a lower ESG risk profile.



## Performance Data – continued

## Climate Change, Carbon Neutrality and Environmental Management

 Vehicle Fuel Economy and CO<sub>2</sub> Emissions

	2020	2021	2022
<b>Ford U.S. Corporate Average Fuel Economy (mpg)</b>			
Cars (domestic and import) <sup>27</sup>	35.2 <sup>28</sup>	39.7 <sup>28</sup>	Available May 2023
Trucks <sup>27</sup>	28.5	29.1	Available May 2023
Combined car and truck fleet	30.0 <sup>28</sup>	30.2 <sup>28</sup>	Available May 2023
<b>Ford U.S. CO<sub>2</sub> Tailpipe Emissions per Vehicle (g/mi)</b>			
Combined car and truck fleet average CO <sub>2</sub> emissions	301	298 <sup>28</sup>	Available May 2023
<b>Global CO<sub>2</sub> Tailpipe Emissions (g/km)</b>			
Ford Europe CO <sub>2</sub> Tailpipe Emissions per Passenger Vehicle	110.000	118.008	Available June 2023
Ford EU CO <sub>2</sub> Tailpipe Emissions per Light Commercial Vehicle	166.000	202.157	Available June 2023
Ford Switzerland CO <sub>2</sub> Tailpipe Emissions per Passenger Vehicle	114.354	123.639	Available May 2023
Ford Switzerland CO <sub>2</sub> Tailpipe Emissions per Light Commercial Vehicle	180.295	211.703	Available May 2023
<b>Ford China Corporate Average Fuel Consumption (L/100km)<sup>29</sup></b>			
Ford (China) Import	8.61	10.68	11.11
Jiangling Motors Corporation (JMC)	7.49	9.25	8.84
Changan Ford Automobile Corporation (CAF)	7.18	7.25	7.09
<b>Ford China Corporate Average Tailpipe Emissions (g CO<sub>2</sub>/km)<sup>29</sup></b>			
Ford (China) Import	408.114	253.116	263.310
Jiangling Motors Corporation (JMC)	177.513	219.225	209.510
Changan Ford Automobile Corporation (CAF)	170.166	171.825	168.030
<b>Global Fleet Efficiency</b>			
Well-to-wheels intensity (gCO <sub>2</sub> e/km)	311	303	324 <sup>30</sup>
Percent reduction in Well-to-wheels gCO <sub>2</sub> e/km intensity since 2019 (%) (SBTi metric)	6%	8%	2% <sup>31</sup>

 Global CO<sub>2</sub> Emissions

	2020	2021	2022
<b>Worldwide Facility GHG Emissions (million metric tons CO<sub>2</sub>e)</b>			
Direct (Scope 1)	0.91	0.90	1.03
Indirect (Scope 2) <sup>32</sup>	1.95	1.61	1.35
<b>Total</b>	<b>2.86</b>	<b>2.51</b>	<b>2.38</b>
<b>Worldwide Operations GHG Emissions (million metric tons CO<sub>2</sub>e)</b>			
Direct (Scope 1)	1.13	1.07	1.25
Indirect (Scope 2) <sup>32</sup>	2.47	2.00	1.75
<b>Total</b>	<b>3.60</b>	<b>3.07</b>	<b>3.00</b>
<b>Scope 3 Emissions (million metric tons CO<sub>2</sub>e)</b>			
Scope 3 Purchased Goods & Services – Supplier Emissions	45.1	45.9	40.5 <sup>34</sup>
Scope 3 Use of Sold Products – Vehicle Emissions	296.9	246.2	286.5 <sup>30</sup>
Scope 3 Miscellaneous <sup>33</sup>	7.2	7.7	7.7 <sup>34</sup>
<b>Total Scope 3 Emissions</b>	<b>349.3</b>	<b>299.9</b>	<b>334.8<sup>34</sup></b>
<b>Total CO<sub>2</sub> Emissions (million metric tons CO<sub>2</sub>e)</b>			
Total Carbon Dioxide Emissions (Scope 1, 2, and 3)	352.9	302.9	337.8 <sup>35</sup>
<b>Emissions Reductions</b>			
Reduction in Worldwide Operations Scope 1&2 GHG emissions since 2017 (%) (SBTi metric)	Not reported	Not reported	35.4%
Reduction in Manufacturing Facility Operations Scope 1&2 GHG emissions since 2017 (%)	Not reported	Not reported	40.1%
Reduction in total Scope 3 GHG emissions since 2019 <sup>35</sup> (%)	Not reported	Not reported	23%

 Non-CO<sub>2</sub> Tailpipe Emissions

	2020	2021	2022
<b>Ford U.S. Average NOx and NMOG Emissions (g/mile)</b>			
Passenger cars <sup>36</sup>	0.0560	0.0890	Available May 2023
All light duty <sup>37</sup>	0.0710	0.0730	Available May 2023

## Emissions (VOC and Other)

	2020	2021	2022
<b>Volatil Organic Compounds Released by Assembly Facilities (grams per meter squared)</b>			
Reduction in VOC emissions from Ford manufacturing facilities in China (%)	Not reported	Not reported	40%
Ford U.S. TRI Releases (million pounds)	3.2	2.4	<b>2.3</b>
Ford U.S. TRI Releases per Vehicle (pounds per vehicle)	1.4	1.4	<b>1.4</b>
Ford Canada NPRI Releases (metric tons)	398	239	<b>196</b>
Ford Canada NPRI Releases per Vehicle (metric tons per vehicle)	0.0017	0.0016	<b>0.0019</b>

## Operational Energy Use

	2020	2021	2022
<b>Worldwide Facility Energy Consumption (billion kilowatt hours)</b>			
Direct (Scope 1)	5.29	5.02	6.31
Indirect (Scope 2)	5.15	4.82	4.94
<b>Total</b>	<b>10.44</b>	<b>9.84</b>	<b>10.56</b>

 Amount of Renewable/Carbon-Free Electricity<sup>38</sup>

	2020	2021	2022
Total Renewable Electricity (billion kilowatt hours)	Not reported	1.42	1.91
Percent Renewable Electricity	Not reported	32.4%	42.6%
Percent Carbon-free Electricity	Not reported	Not reported	60.6%

## Performance Data – continued

## Climate Change, Carbon Neutrality and Environmental Management – continued

## Water

	2020	2021	2022
<b>Global Water Use per Vehicle Produced (cubic meters per vehicle produced)</b>			
	3.82	3.75	3.51
<b>Global Water Use by Source (million cubic meters)</b>			
City water	12.5	11.7	12.1
Surface water	0.1	0.1	0.1
Well water	3.0	2.4	2.9
<b>Total</b>	<b>15.6</b>	<b>14.2</b>	<b>15.1</b>
<b>Regional Water Use (million cubic meters)</b>			
North America	8.7	8.2	8.6
South America	0.6	0.2	0.3
Europe	3.5	2.8	3.3
China	1.5	1.8	1.7
IMG	1.4	1.3	1.2
<b>Reuse From On-Site Wastewater Treatment Plant (million cubic meters)</b>			
	0.9	0.97	0.89
<b>Process Wastewater Discharge (million cubic meters)</b>			
Process Waster Water Discharge (million cubic meters)	6.3	7.1	7.3
<b>Freshwater Reduction</b>			
Reduction in absolute freshwater use (% from 2019)			21.7%
Reduction in absolute freshwater use (% from previous year)			-6.8%
Reduction in annual freshwater consumption since 2000 (%)			76.2%
Water saved since 2000 (billion gallons)			186.3
Amount of water use that was from an alternative water source in water scarce areas (%)			8%
Percentage of water reused (%)			6%

## Waste

	2020	2021	2022
<b>Regional Waste to Landfill (million kilograms)</b>			
North America	13.2	12.3	15.0
South America	0.1	0.0	0.0
Europe	1.3	1.3	0.2
China	0.8	0.0	0.0
IMG	2.1	2.7	2.3
<b>Total</b>	<b>17.5</b>	<b>16.3</b>	<b>17.5</b>
<b>Waste to Landfill per Vehicle (kilograms)</b>			
	3.6	4.3	4.2
<b>Regional Hazardous Waste Generation (million kilograms)</b>			
North America	9.9	8.1	7.5
South America	1.1	1.8	0.7
Europe	21.0	18.8	20.4
China	4.8	3.2	3.4
IMG	2.8	4.4	5.2
<b>Hazardous Waste Generation per Vehicle (kilograms)</b>			
	9.7	9.6	8.9
<b>Hazardous Waste by Disposal Method (million kilograms)</b>			
Reuse	0.6	0.7	0.8
Recycling	10.5	9.7	9.9
Composting	0.0	0.0	0.0
Recovery, including energy reduction	8.7	7.3	5.7
Incineration (mass burn)	3.8	4.6	2.7
Deep well injection	0.0	0.0	0.0
Landfill	2.5	2.2	2.1
On-site storage	6.3	5.1	6.1
Other (yard waste, etc.)	7.2	7.1	9.8
<b>Total</b>	<b>39.6</b>	<b>36.8</b>	<b>37.2</b>

## Waste (continued)

	2020	2021	2022
<b>Non-Hazardous Waste by Disposal Method (million kilograms)</b>			
Reuse	8.3	9.6	5.9
Recycling	873.6	752.9	1,038.9
Composting	2.9	3.1	3.6
Recovery, including energy reduction	23.9	23.3	23.9
Incineration (mass burn)	5.0	5.9	3.4
Deep well injection	0.0	0.0	0.0
Landfill	15.0	14.1	16.3
On-site storage	6.8	4.8	5.6
Other (yard waste, etc.)	10.9	10.4	23.2
<b>Total</b>	<b>946.4</b>	<b>824.3</b>	<b>1,120.8</b>
<b>Total Waste by Type and Disposal Method (million kilograms)</b>			
Reuse	8.9	10.3	6.7
Recycling	884.1	762.7	1,048.9
Composting	2.9	3.1	3.6
Recovery, including energy reduction	32.6	30.7	29.7
Incineration (mass burn)	8.8	10.5	6.1
Deep well injection	0.0	0.0	0.0
Landfill	17.5	16.3	18.4
On-site storage	13.1	10.0	11.7
Other (yard waste, etc.,)	18.1	17.6	33.0
<b>Total</b>	<b>986.0</b>	<b>861.1</b>	<b>1,158.0</b>

## Performance Data – continued

## Climate Change, Carbon Neutrality and Environmental Management – continued

## Waste (continued)

	2020	2021	2022
<b>Scrap Metals (metric tons)</b>			
North America	434,901	430,621	575,406
South America	26,484	15,561	6,078
Europe	231,460	137,156	259,254
China	34,021	11,439	31,957
IMG	36,864	29,870	46,019
Global	763,730	624,647	918,714
<b>Total Waste and Percent Recycled and Reused</b>			
Total waste (million mt)	0.99	0.86	1.13
Percent Recycled and Reused	91%	90%	91%
<b>Zero Waste to Landfill (ZWTL)</b>			
ZWTL sites globally (number)	Not reported	89	84 <sup>39</sup>
Percentage of manufacturing facilities that are true ZWTL	Not reported	74%	74%
<b>Waste Reductions (normalized)</b>			
Reduction in waste sent to landfill since previous year (percent)	Not reported	Not reported	-4.4%
Reduction in general trash from 2017 (percent)	Not reported	Not reported	29.5%
Improvement in waste avoidance from 2017 (percent)	Not reported	Not reported	8.7%

## Electric Vehicles, Batteries and Charging Infrastructure

## Vehicle Sales

	2020	2021	2022
<b>Electric and Hybrid Vehicles Sold Globally (retail)</b>			
Zero Emission Vehicle (ZEV)	255	55,692	108,567
Hybrid Emission Vehicle (HEV)	74,496	126,663	156,397
Plug-In Hybrid Vehicle (PHEV)	8,064	64,460	80,063
<b>Total</b>	<b>82,815</b>	<b>246,815</b>	<b>345,027</b>

## BlueOval Charge Network

	2022
<b>Number of plugs by region at time of publication</b>	
North America	84,000+
Europe	450,000+

## Human Capital Management and Diversity, Equity and Inclusion

### Workforce Profile

	2020	2021	2022
<b>Global Workforce by Region (percent)<sup>40</sup></b>			
North America	54%	54%	57%
South America	4%	2%	3%
Europe	23%	23%	20%
China	2%	2%	2%
International Markets Group (IMG)	8%	9%	8%
<b>Employment by Business Unit (number)</b>			
Automotive	169,732	163,764	155,058
Ford Motor Credit	6,258	5,446	4,900
Ford Next <sup>41</sup>	2,554	1,906	382
Corporate and Other	7,858	11,674	12,422
<b>Total</b>	<b>186,402</b>	<b>182,789</b>	<b>172,762</b>
<b>Total Workforce by Hourly and Salaried (number)</b>			
Hourly	116,317	111,554	103,971
Salaried	70,085	71,235	68,791
<b>Total Company</b>	<b>186,402</b>	<b>182,789</b>	<b>172,762</b>
	<b>Hourly</b>	<b>Salaried</b>	<b>Total</b>
<b>Total Workforce by Hourly and Salaried, by Region (number) (2022)</b>			
<b>Automotive</b>			
North America	70,083	28,088	98,171
South America	2,326	2,235	4,561
Europe	21,731	12,800	34,531
China	0	3,542	3,542
IMG	9,831	4,422	14,253
<b>Ford Credit</b>	<b>0</b>	<b>4,900</b>	<b>4,900</b>
<b>Corporate and Other</b>	<b>0</b>	<b>12,422</b>	<b>12,422</b>
<b>Ford Next<sup>41</sup></b>	<b>0</b>	<b>382</b>	<b>382</b>
<b>Total company</b>	<b>103,971</b>	<b>68,791</b>	<b>172,762</b>

### Diversity

	2020	2021	2022
<b>Global Salaried Employees by Gender (number)<sup>42</sup></b>			
Male	40,578	41,004	38,396
Female	15,566	16,052	15,564
<b>Global Salaried Employees by Gender (percent)<sup>43</sup></b>			
Male	72.3%	71.8%	71.1%
Female	27.7%	28.1%	28.8%
<b>Board of Directors Composition by Gender and Minorities (percent)</b>			
Male	78.6%	73.3%	71.4%
Female	21.4%	26.7%	28.6%
Minorities	14.3%	13.3%	14.3%
<b>Board of Directors – Demographic Data (number)</b>			
Male	11	11	10
Female	3	4	4
Minorities	2 – 1 Puerto Rican, 1 African American	2 – 1 Puerto Rican, 1 African American	2 – 1 Puerto Rican, 1 African American
<b>Total</b>	<b>14</b>	<b>15</b>	<b>14</b>
<b>Corporate Officers Composition by Gender and Minorities (percent)<sup>44</sup></b>			
Male	83.8%	82.1%	82.1%
Female	16.2%	17.9%	17.9%
Minorities	14.3%	17.9%	20.5%
<b>Corporate Officers – Demographic data (number)<sup>44</sup></b>			
Male	31	32	30
Female	6	7	7
Minorities	7 – 3 Asian, 4 African American	7 – 3 Asian, 4 African American	7 – 3 Asian, 4 African American
<b>Total</b>	<b>37</b>	<b>39</b>	<b>37</b>

### Women in Management

	2020	2021	2022
<b>Women in Senior Management by Region (percent)<sup>45</sup></b>			
<b>Automotive</b>			
North America	20.6%	23.8%	23.3%
South America	9.1%	9.1%	11.1%
Europe	10.5%	14.6%	20.0%
China	12.1%	15.0%	26.8%
IMG	8.3%	10.3%	4.5%
<b>Ford Motor Credit</b>	<b>42.9%</b>	<b>28.6%</b>	<b>37.5%</b>
<b>Corporate and Other</b>	<b>38.5%</b>	<b>34.5%</b>	<b>36.8%</b>
<b>Ford Next<sup>41</sup></b>	<b>23.1%</b>	<b>16.7%</b>	<b>0.0%</b>
<b>Total</b>	<b>29.6%</b>	<b>22.5%</b>	<b>24.5%</b>
<b>Women in Middle Management by Region (percent)</b>			
<b>Automotive</b>			
North America	30.9%	24.4%	26.3%
South America	8.8%	15.4%	14.9%
Europe	16.5%	18.8%	17.8%
China	49.7%	34.2%	34.5%
IMG	20.9%	18.2%	20.4%
<b>Ford Motor Credit</b>	<b>51.7%</b>	<b>36.8%</b>	<b>41.0%</b>
<b>Corporate and Other</b>	<b>24.6%</b>	<b>31.2%</b>	<b>33.8%</b>
<b>Ford Next<sup>41</sup></b>	<b>29.0%</b>	<b>18.8%</b>	<b>31.3%</b>
<b>Total</b>	<b>26.1%</b>	<b>25.0%</b>	<b>26.3%</b>

## Human Capital Management and Diversity, Equity and Inclusion – continued

### Women in Management (continued)

	2020	2021	2022
<b>Women in Supervisory Positions by Region (percent)</b>			
<b>Automotive</b>			
North America	31.6%	25.3%	25.9%
South America	20.8%	20.0%	20.2%
Europe	17.9%	19.1%	20.2%
China	62.2%	39.1%	40.1%
IMG	27.3%	23.7%	25.4%
<b>Ford Motor Credit</b>	60.3%	38.3%	40.3%
<b>Corporate and Other</b>	25.3%	23.3%	24.5%
<b>Ford Next<sup>41</sup></b>	44.1%	25.6%	28.9%
<b>Total</b>	<b>29.8%</b>	<b>24.9%</b>	<b>25.7%</b>

### U.S. Diversity Data

	2020	2021	2022
<b>U.S. Diversity Performance Data (percent)<sup>46</sup></b>			
<b>Total Minority Group Personnel<sup>47</sup></b>			
African American	22.8%	22.5%	23.8%
Asian	5.2%	5.8%	5.9%
Hispanic/Latino	4.2%	4.3%	4.4%
Other Minority <sup>48</sup>	2.2%	2.2%	2.0%
White <sup>49</sup>	65.2%	64.6%	63.5%
<b>Total Minority<sup>50</sup></b>	<b>34.4%</b>	<b>34.9%</b>	<b>36.2%</b>

### U.S. Diversity Data (continued)

	2020	2021	2022
<b>Salaried Minority Group Personnel<sup>47</sup></b>			
African American	8.6%	8.4%	8.7%
Asian	14.0%	15.4%	16.5%
Hispanic/Latino	4.2%	4.2%	4.5%
Other Minority <sup>48</sup>	1.7%	1.8%	2.0%
White <sup>49</sup>	71.6%	68.9%	67.4%
<b>Total Minority<sup>50</sup></b>	<b>28.5%</b>	<b>29.8%</b>	<b>31.6%</b>

### Hourly Minority Group Personnel<sup>47</sup>

	2020	2021	2022
African American	30.7%	30.5%	31.6%
Asian	0.4%	0.4%	0.6%
Hispanic/Latino	4.2%	4.3%	4.4%
Other Minority <sup>48</sup>	2.5%	2.5%	2.0%
White <sup>49</sup>	62.1%	62.3%	61.4%
<b>Total Minority<sup>50</sup></b>	<b>37.8%</b>	<b>37.7%</b>	<b>38.6%</b>

### Women

	2020	2021	2022
Salaried	27.4%	27.6%	27.9%
Hourly	23.8%	23.5%	24.0%
<b>Total</b>	<b>25.1%</b>	<b>25.0%</b>	<b>25.3%</b>

### U.S. Diversity Performance Data (number)<sup>47</sup>

<b>Minority-group personnel</b>			
Salaried	8,931	9,419	9,208
Hourly	21,833	21,145	21,986
<b>Total</b>	<b>30,764</b>	<b>30,564</b>	<b>31,194</b>

### Women

	2020	2021	2022
Salaried	8,707	8,705	8,114
Hourly	13,739	13,170	13,711
<b>Total</b>	<b>22,446</b>	<b>21,875</b>	<b>21,825</b>

### Supplier Diversity

	2020	2021	2022
<b>Total Purchases in the U.S. (\$ Billion)</b>			
From minority-owned businesses US	6.30	7.46	8.01
From veteran-owned business US	0.16	0.13	0.15
From women-owned businesses US	1.16	1.15	1.79
From small businesses	3.48	5.00	4.10
Total sourced in goods and services with diverse-owned businesses in last year	7.47	9.70	10.78
Total sourced in goods and services with diverse-owned businesses to date	162	170	180
Total purchase from diverse Tier 2 suppliers <sup>51</sup>	4.20	3.00	4.48

### Employee Health and Safety

	2020	2021	2022
<b>Global Lost-Time Case Rate (per 100 employees) (cases with one or more days away from work per 200,000 hours)</b>			
Ford Motor Company	0.31	0.35	0.39
<b>Lost-Time Case Rate by Region (per 100 employees) (cases with one or more days away from work per 200,000 hours)</b>			
North America	0.53	0.59	0.68
Europe	0.28	0.24	0.34
China	0.01	0.02	0.01
IMG <sup>52</sup>	0.09	0.12	0.02
<b>Global Fatalities (number)<sup>53</sup></b>	<b>0</b>	<b>3</b>	<b>2</b>

## Performance Data – continued

## Human Capital Management and Diversity, Equity and Inclusion – continued

**Confirmed Harassment Allegations**

	2020	2021	2022
<b>Number of confirmed harassment allegations<sup>54</sup></b>			
North America	91	92	55
South America	8	0	1
Europe	2	3	10
China	0	1	0
IMG	4	18	12
<b>Total</b>	<b>105</b>	<b>114</b>	<b>78</b>

**Percentage of confirmed harassment allegations by region<sup>55</sup>**

	2020	2021	2022
North America	0.25%	0.25%	0.16%
South America	0.27%	0.00%	0.05%
Europe <sup>56</sup>	0.22%	0.39%	1.15%
China	0.00%	0.03%	0.00%
IMG	0.03%	0.14%	0.11%
<b>Total</b>	<b>0.15%</b>	<b>0.20%</b>	<b>0.15%</b>

**Employee Engagement**

	2020	2021	2022
<b>Voluntary Quit Rate by Major Markets (salaried employees) (percent)</b>			
United States	2.3%	3.8%	4.8%
Canada	3.1%	3.0%	4.8%
Mexico	2.7%	5.5%	6.9%
Brazil	2.9%	3.5%	6.7%
Germany	0.0%	0.4%	0.6%
United Kingdom	0.3%	2.1%	1.5%
China	4.8%	8.4%	9.3%
India	5.5%	8.8%	13.7%
Thailand	2.3%	2.6%	2.8%

**Community Engagement**

	2022
<b>Charitable Contributions</b>	
Total Contributions (\$)	64.3M
Total given to disaster relief efforts (\$)	2.3M
Volunteer Hours – Total since 2005 (number)	1.7M
Volunteer Hours – Total in reporting year(number)	>50,000

## Human Rights and Supply Chain Management

**Corporate Human Rights Risk Assessments**

	2022
Human Rights Risk Assessments conducted (number)	35
Human Rights Risk Assessments conducted since 2004 (number)	109

**Supply Chain Overview**

	2022
<b>Supply Chain Size (number)</b>	
Supplier sites globally – Tier 1	1,600+
Countries we have supplier production in	62
Supplier sites (Production)	4,500+
Supplier Parts manufactured (Production)	190,000+
Supplier Commodities sourced (Production)	531
Supplier companies (Indirect)	24,000+

**Supply Chain CDP Response Summary**

	2022
<b>Supplier Participation in CDP Questionnaires</b>	
Suppliers that responded to CDP Water Security (number)	258
Increase in supplier response to CDP Water Security from previous reporting year (percent)	30.6%
Suppliers that responded to CDP Climate Change (number)	313
Increase in supplier CDP Climate Change responses from previous reporting year (percent)	19.1%

## Performance Data – continued

## Human Rights and Supply Chain Management – continued

## Sustainability Training

	2022
<b>Supply Chain Sustainability Training (number)</b>	
Ford Purchasing Employees Trained	844
Other Ford Employees Trained	2,647
<b>Supplier Training</b>	
Suppliers Trained (number)	979
Direct engagements with Suppliers (number)	60
Ford led live webinars on responsible 3TG, cobalt, and mica due diligence (number)	133
Live webinars on country-level topics by Drive Sustainability (Ford support) (number)	258
RMI eLearning training participation (number of suppliers)	102
RMI eLearning training participation (percent of invited suppliers)	18%

## Supply Chain Management – Responsible Business Alliance (RBA) Validated Assessment Program (VAP)

	Total
<b>RBA VAP Working Condition Assessments – (Cumulative since 2003) (number)</b>	
North America	178
South America	242
Europe	135
China	362
IMG	335
<b>Total</b>	<b>1,252</b>

## Supply Chain Management – Responsible Business Alliance (RBA) Validated Assessment Program (VAP) (continued)

	Total
<b>RBA VAP Follow-up Assessments – (Cumulative since 2003) (number)</b>	
North America	223
South America	373
Europe	188
China	448
IMG	463
<b>Total</b>	<b>1,695</b>

## RBA VAP Audit Summary

	Total
<b>RBA VAP Audit Summary</b>	
Percentage of total supply base audited to date (since 2003)	32%
<b>2022</b>	
Suppliers audited in reporting year (number)	25
Sites audited in reporting year (number)	25
Percentage of total supply base audited this year	0.60%

## RBA VAP Results

Audited sites that required a follow-up audit (percent)	84%
Follow-up audits that have completed final closure audit (percent)	5%
Sites audited that submitted a CAP approved by a third party (percent)	76%
Score improvement among audited sites (number)	67
Supplier relationships ended as a result of audit findings (number)	0
Supplier sourcing put on hold as a result of audit findings (number)	0

	2021	2022
<b>RBA VAP Supplier Audit Scores – Initial and Closures (Average)</b>		
Initial Audit Score (average)	107	104
Closure Audit Score (average) <sup>57</sup>	189	174
Percent of suppliers audited that had non-conformance	Not Reported	100%

## Supply Chain Management – Responsible Business Alliance (RBA) Validated Assessment Program (VAP) (continued)

	2021	2022
<b>RBA VAP Supplier Audit Findings – category non-conformances found in initial audits conducted (nonconformance type percent of total)</b>		
Labor	28%	38%
Management Systems	29%	28%
Health and Safety	28%	27%
Environment	11%	6%
Ethics	3%	1%

## RBA VAP Supplier Audit Findings – category non-conformances found in initial audits conducted (percent of nonconformance category)

	2021	2022
<b>Management System</b>		
Supplier Responsibility	24%	30%
Management Accountability and Responsibility	15%	17%
Audits & Assessments	15%	15%
Risk Assessment and Risk Management	11%	9%
Improvement Objectives	8%	8%
Communication	6%	6%
Legal and Customer Requirements	7%	5%
Training	3%	4%
Company Commitment	1%	2%
Worker Feedback and Participation	4%	2%
Documentation and Records	6%	1%
Corrective Action Process	2%	1%

## Performance Data – continued

## Human Rights and Supply Chain Management – continued

**Supply Chain Management – Responsible Business Alliance (RBA) Validated Assessment Program (VAP) (continued)**

	2021	2022
<b>Labor</b>		
Working hours	36%	38%
Freely Chosen Employment Policies and Management Systems	21%	25%
Wages and Benefits	16%	16%
Non-Discrimination	14%	11%
Freedom of Association	4%	6%
Child Labor Avoidance Policies and Management Systems	9%	3%
Humane Treatment	0%	1%
Presence of Forced Labor	0%	0%
Prevalence of Child Labor	0%	0%
<b>Health and Safety</b>		
Emergency Preparedness	37%	44%
Occupational Safety	26%	22%
Occupational Injury and Illness	15%	16%
Food, Sanitation and Housing	11%	11%
Industrial Hygiene	5%	3%
Machine Safeguarding	3%	2%
Physically Demanding Work	2%	1%
Health and Safety Communication	2%	1%
<b>Environment</b>		
Hazardous Substances	30%	59%
Energy Consumption and Greenhouse Gas Emissions	16%	18%
Air Emissions	14%	9%
Materials Restrictions	5%	5%
Pollution Prevention and Resource Reduction	2%	5%
Environmental Permits and Reporting	12%	4%
Water Management	12%	0%
Solid Waste	9%	0%

**Supply Chain Management – Responsible Business Alliance (RBA) Validated Assessment Program (VAP) (continued)**

	2021	2022
<b>Ethics</b>		
No Improper Advantage	15%	67%
Privacy	8%	33%
Intellectual Property	23%	0%
Disclosure of Information	23%	0%
Fair Business, Advertising and Competition	15%	0%
Business Integrity	8%	0%
Responsible Sourcing of Minerals	8%	0%
Protection of Identity and Non-Retaliation	0%	0%

**Supply Chain – Drive Sustainability Self-Assessment Questionnaire (SAQ) Results**

	2021	2022
<b>Supplier Policy Gaps Identified in SAQ (gap type as percent of total)</b>		
Supply Chain Management	37%	49%
Business Ethics	22%	17%
Environment	21%	15%
Health & Safety	12%	10%
Working Conditions & Human Rights	5%	6%
Company Management	2%	1%
Responsible Sourcing of Raw Materials	1%	1%

**Supply Chain – Drive Sustainability Self-Assessment Questionnaire (SAQ) Results (continued)**

	2021	2022
<b>SAQ Findings – Supplier policy/practice gap identified (percent of suppliers indicated)</b>		
Access to water and sanitation	12%	10%
Air quality	15%	13%
Child labor	5%	5%
Climate change – GHG emissions reporting	N/A	7%
Climate change – Energy Efficiency	N/A	6%
Climate change – renewable energy	N/A	7%
Equal and fair wages	6%	4%
Forced labor and ethical recruitment	6%	8%
Harassment and discrimination	4%	4%
Human trafficking	N/A	5%
Health and Safety – Management System	9%	10%
Health and Safety – Employee Training	5%	4%
Health and Safety – Formal Policy	4%	3%
Health and Safety – Other	16%	8%

**Supply Chain – Responsible Materials Sourcing**

	2022
<b>Supplier Due Diligence and Reporting Response Rate (%)</b>	
Cobalt due diligence	100%
Mica due diligence	100%
Conflict mineral reporting	100%
<b>Reported Smelter Conformance Rates by Mineral (number)</b>	
Tin	64
Tungsten	39
Tantalum	34
Gold	109
Cobalt	42
Mica	3

## Performance Data – continued

## Human Rights and Supply Chain Management – continued

## Supply Chain – Responsible Materials Sourcing (continued)

	2022
<b>Reported Smelter Conformance Rates by Mineral (percent)</b>	
Tin	78%
Tungsten	77%
Tantalum	94%
Gold	62%
Cobalt	61%
Mica	19%

## Map of Ford's Battery Material Supply Chains to the Mine Site

Supplier Type	Number of Identified Suppliers	Country of Operation
Battery	5	China, Poland, Korea, USA
Cathode	3	China, Korea
Electrolyte	1	China
Manufacturer	5	China
Refiner	20	Australia, China, Finland, Korea,
Treatment Unit	28	Australia, Chile, DRC, Finland, Indonesia, Russia, Turkey
Large Scale Mine (LSM)	31	Australia, Chile, DRC, Finland, Indonesia, Russia, Turkey
Other <sup>58</sup>	27	Belgium, China, DRC, Korea, Luxembourg, Netherlands, Poland, Singapore, Switzerland, UAE
<b>Total</b>	<b>120</b>	

## Results of the 2022 RCS Global audit of Ford's OECD Due Diligence management systems of our EV battery material supply chain

Ford Due Diligence Management Systems (Cobalt, Nickel, Lithium)	Gaps Identified number	Severity of Gaps	Ford Corrective Actions Plan Recommendations
Management System	1	Minor	Update written minerals due diligence procedure to include nickel (Ni) and lithium (Li)
Risk Assessment	2	Minor	Complete collection of data for Ni & Li, integrate information from mapping auditing into raw material risk assessment
	1	Major	Update risk assessment to include Ni & Li
Mitigation	0	Conformant	No actions required
Third-party audits	1	Major	Ensure all Cobalt, Ni, and Li smelters /refiners/processors have undergone a third-party audit. Work with suppliers to initiate audits.
Public Reporting	1	Minor	Update public reporting for Ni & Li
(ESG) Human Rights, Environment and Health & Safety	0	Conformant	No actions required

## Supply Chain – RCS Global Audit Results of OECD Due Diligence management systems

	2022
Total battery material suppliers identified (since 2021) (number)	120
Battery material suppliers audited (since 2021) (percent)	25%
EV Battery Supply chain audits conducted in reporting year (number)	11
<b>Results from EV Battery Supply Chain audits<sup>59</sup> (nonconformance type percent of total)</b>	
Management System	35%
Risk Assessment	23%
Risk Mitigation	23%
3rd party Audits	10%
Public Reporting	9%

## Product Safety and Quality

### Vehicle Safety

	2020	2021	2022
<b>Ford &amp; Lincoln Nameplates With 5-star Overall Rating (number)</b>			
US NCAP	13	12	10
Euro NCAP	9	10	8
China NCAP	1	2	1
<b>Available Ford and Lincoln Nameplates With 5-star Overall Rating (percent)</b>			
US NCAP	72%	71%	56%
Euro NCAP	60%	83%	57%
China NCAP	100%	67%	81%
<b>Safety Recalls</b>			
Number of safety recalls (Global)	Not Reported	Not Reported	114
Number of passenger vehicle recalls Global	Not Reported	Not Reported	11.2M
Number of safety recalls (U.S.) <sup>60</sup>	45	53	72
Number of U.S. passenger vehicle recalls	4.79M	5.396M	8.7M

# Appendix 1 – Material Topics

### Materiality Methodology

The reporting landscape has changed since our 2021 comprehensive materiality assessment. The Global Reporting Initiative (GRI) updates now require an organization to identify the most significant actual and potential impacts on the economy, environment and people.

Meanwhile, beginning in January 2024, the Corporate Sustainability Reporting Directive (CSRD) will require companies to adopt the concept of double materiality and report on two parameters: the topics that may impact the financial performance of the company and the company’s own impact on people and environment.

Our 2023 materiality methodology was updated to reflect these emerging guidelines and incorporate elements of double materiality.

### Topic Identification

We sought to achieve balance and completeness by developing a list of topics covering all ESG areas likely to be relevant across Ford’s value chain. A preliminary list of ESG topics was compiled using business analysis, trend analysis, review of peers and leaders, and assessment of standards and frameworks.

### Gathering Stakeholder Input

To support topic prioritization we engaged internal and external stakeholders including industry associations and non-governmental organizations (NGOs), internal subject matter experts, and Ford employees. More than 600 Ford employees weighed in, responding to a first-of-its-kind outreach.

### Assessing Input

We scored stakeholder responses and weighted them to reflect the relative importance of each topic across two dimensions: Ford’s impact on the people and environment and the impact on Ford’s overall performance and business. We combined the results of these two different lenses to build our materiality matrix and identify the topics we should focus on to have the greatest impact. We considered the actual and potential, negative and positive impacts during this exercise, and also the employee prioritization of topics.

### MATERIAL TOPICS AND DEFINITIONS

Topics are listed in alphabetical order within each category, not in order of priority.

#### PRODUCTS AND SERVICES

Topic	Subtopics	Definition
<b>Accessible and Affordable Mobility Solutions</b>	<ul style="list-style-type: none"> <li>Infrastructure Equity</li> <li>EV Access</li> </ul>	Providing accessible and affordable transportation and charging solutions, prioritizing traditionally underserved communities and other scenarios that can hinder EV ownership.
<b>Connected Vehicles, Digital Services and Artificial Intelligence</b>	<ul style="list-style-type: none"> <li>Artificial Intelligence (AI) Ethics</li> <li>Socially Responsible Innovation</li> <li>Intellectual Property (IP)</li> <li>Connectivity</li> <li>Software-Designed Vehicles</li> </ul>	Accelerating innovation in Ford’s connected vehicle and mobility businesses and embracing technology, data and software in new ways, all whilst considering and further understanding the ethical challenges associated with advancing this market.
<b>Customer Experience and Responsible Marketing</b>	<ul style="list-style-type: none"> <li>Customer Loyalty and Trust</li> <li>Customer Experience</li> <li>Responsible Marketing and Sales</li> </ul>	Maintaining customer satisfaction and loyalty through the quality of Ford’s customer service and experience, from interactions with dealers and vehicle purchase through vehicle ownership, maintenance, and updates. Committing to responsible and ethical advertisements, communications and sales strategies.
<b>Electric Vehicles, Batteries and Charging Infrastructure</b>	<ul style="list-style-type: none"> <li>Electric Vehicle Strategy</li> <li>Scaling Electric Vehicle production</li> <li>Battery Technology and innovation</li> <li>EV Infrastructure and Charging</li> </ul>	Investing to reduce fuel consumption and GHG emissions from Ford vehicles by producing electrified versions of popular nameplates and innovating to develop more efficient EV and battery technologies with improved lifecycles. Partnering and investing to provide accessible charging networks to support the shift to electrification.

## Appendix 1 – Material Topics – continued

Topics are listed in alphabetical order within each category, not in order of priority.

**ENVIRONMENT**

Topic	Subtopics	Definition
<b>Air Quality</b>	<ul style="list-style-type: none"> <li>• Ozone Depleting Substances</li> <li>• Volatile Organic Compounds (VOCs)</li> <li>• Criteria Pollutants (particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxide, lead)</li> </ul>	Minimizing local emissions of non-greenhouse gas air pollutants through Ford's direct operations or through the use of our products, that impact air quality, atmospheric conditions and/or human health.
<b>Circular Economy and End-of-Life</b>	<ul style="list-style-type: none"> <li>• Recycled and Renewable Materials</li> <li>• Material Recovery and Recycling</li> <li>• End-of-Life Impacts</li> </ul>	Directing innovation towards developing sustainable materials for use in vehicles, including renewable and recycled materials, sustainable chemicals and a reduction in substances of concern. Product, process and material innovations should support the circular economy.
<b>Climate Change and Carbon Neutrality</b>	<ul style="list-style-type: none"> <li>• Product Greenhouse Gas (GHG) Emissions</li> <li>• Operational GHG Emissions</li> <li>• Supply chain GHG Emissions</li> <li>• Alternative Fuels and Fuel Economy Innovations</li> <li>• Climate Risk and Resilience</li> </ul>	Assessing and responding to the impact of global climate-related risks and pursuing carbon neutrality through reducing CO <sub>2</sub> emissions from upstream and downstream activities, including Ford's direct and indirect operations, and use of lower carbon fuels. Researching and developing alternative powertrains and fuel options across all Ford vehicles providing customers with efficient, low-carbon alternatives.
<b>Energy Consumption and Renewable Energy</b>	<ul style="list-style-type: none"> <li>• Energy Use</li> <li>• Energy Conservation and Reductions</li> <li>• Renewable Energy (operations and charging)</li> </ul>	Optimizing energy use through increasing access to affordable, reliable and sustainable energy – including renewable sources – for Ford's business and customers.
<b>Environmental Management</b>	<ul style="list-style-type: none"> <li>• Water Use and Water Stewardship</li> <li>• Waste Management</li> <li>• Biodiversity and Ecosystem Health</li> </ul>	Minimizing environmental impacts through Ford's direct operations, including minimizing operational waste and targeting zero waste to landfill, ensuring efficient water use, management, treatment and discharge, and developing solutions to preserve biodiversity and restore ecosystems.

Appendix 1 – Material Topics – continued

Topics are listed in alphabetical order within each category, not in order of priority.

**PEOPLE**

Topic	Subtopics	Definition
<b>Employee Health, Safety and Wellbeing</b>	<ul style="list-style-type: none"> <li>Occupational Health and Safety</li> <li>Mental Wellbeing</li> <li>Employee Engagement &amp; Satisfaction</li> </ul>	Ensuring the physical safety, health and mental health and wellbeing of employees. Wellbeing encompasses the financial, social, mental, emotional, physical, and professional needs of our employees. Nurturing a workplace culture that promotes collaboration, individual development and communication to grow employee contentment, accomplishment, satisfaction, and motivation.
<b>Human Capital Management and Diversity, Equity and Inclusion</b>	<ul style="list-style-type: none"> <li>Diversity, Equity and Inclusion</li> <li>Supporting a Just Transition</li> <li>Job Creation, Stability and Security</li> <li>Upskilling and Reskilling</li> <li>Talent Attraction &amp; Retention</li> <li>Freedom of Association and Collective Bargaining</li> </ul>	Supporting the transition to a low-carbon future through promoting job creation, job retention, technical and career readiness, and training and development. This includes promoting diversity in all its forms, supporting the active integration and fair treatment of all employees, and upholding the legal rights and fundamental principles that regulate labor relations between workers and employers.
<b>Human Rights and Supply Chain Management</b>	<ul style="list-style-type: none"> <li>Respecting Human Rights</li> <li>Forced Labor / Human Trafficking / Child Labor</li> <li>Responsible Material Sourcing</li> <li>Supply Chain Transparency</li> <li>Building Supplier Capability</li> </ul>	We are committed to respecting human rights everywhere we operate and throughout our entire value chain. At all times respecting human rights and good labor relations through setting policies and practices. Ensuring supply continuity of materials, capacity building and improved performance, including greater social and environmental performance. Our goal is to only source materials that have been responsibly sourced.
<b>Socioeconomic Contribution and Community Engagement</b>	<ul style="list-style-type: none"> <li>Volunteering and Corporate Philanthropy</li> <li>Disaster Relief</li> <li>STEM Education and Youth Development</li> </ul>	Addressing societal challenges at a local level and strengthening local communities through targeted investment, positive engagement and partnering for sustainable development.
<b>Product Safety and Quality</b>	<ul style="list-style-type: none"> <li>Occupant Safety</li> <li>Pedestrian, Road User, and Public Safety</li> <li>Product Quality</li> <li>Recall Management</li> <li>Customer Satisfaction</li> </ul>	Designing and manufacturing vehicles that meet or exceed all applicable laws and regulations and do not represent harm or hazards to consumers. They will offer state-of-the-art passive and active safety features, as well as driver assist technology to prevent or mitigate accidents. Maintaining or improving the quality of Ford's products, including safety, performance issues, recalls and third-party ratings.

Appendix 1 – Material Topics – continued

Topics are listed in alphabetical order within each category, not in order of priority.

**GOVERNANCE**

Topic	Subtopics	Definition
<b>Corporate Governance and Risk Management</b>	<ul style="list-style-type: none"> <li>• Accountable and Inclusive Governance</li> <li>• Government Regulations, Policy and Engagement</li> <li>• Resilient Operations</li> <li>• Financial Health</li> <li>• Risk Management</li> </ul>	<p>Ensuring transparent and accountable corporate governance practices through promoting the fair and effective functioning of the Board, its committees and the Company. Complying with government regulations, policies and expectations on a range of issues including climate change, taxation and environmental standards.</p> <p>Includes Ford’s processes and practices aimed at optimizing financial, social and environmental value in the long term.</p>
<b>Data Protection, Privacy and Cyber Security</b>	<ul style="list-style-type: none"> <li>• Data Protection Management</li> <li>• Customer Privacy</li> <li>• Cyber Security</li> </ul>	<p>Responsibility of Ford to use employee and customer data, and artificial intelligence tools, responsibly. Data science and analytics enables a better understanding of consumer behavior and should be harnessed to help maintain user privacy and improve digital and physical asset security.</p>
<b>Transparency, Business Ethics and Integrity</b>	<ul style="list-style-type: none"> <li>• Responsible Tax</li> <li>• Anti-Bribery and Anti-Corruption</li> <li>• Corporate Transparency</li> </ul>	<p>Ensuring appropriate structures are in place to combat corruption, bribery and conflicts of interest, and manage corporate risk while embedding ethical business practices. Integrity is promoted throughout operations, empowering employees to take responsibility for their own actions. This is accompanied by regular, transparent reporting.</p>

# Appendix 2 – Resource List

## FORD SUSTAINABILITY REPORTING

- Summary Report 2023
- Human Rights Report 2022
- Human Rights Progress Report 2023
- Climate Change Report 2023
- Sustainable Financing Report 2022
- Sustainable Financing Framework

## INDICES 2023

- GRI (Global Reporting Initiative)
- Bloomberg GEI (Gender-Equality Index)
- SASB (Sustainability Accounting Standards Board)
- UN SDGs (United Nations Sustainable Development Goals)
- UNGPRF (UN Guiding Principles Reporting Framework)
- TCFD (Task force on Climate-related Financial Disclosures)
- UN COP (Communication on Progress) (to be updated June 2023)
- CDP Climate
- CDP Water

## OTHER DOCUMENTS AND RESOURCES

- 10-K
- Automotive Industry Guiding Principles to Enhance Sustainability Performance in the Supply Chain
- Board of Directors Code of Ethics and Charters
- Global Modern Slavery Statement
- Ford Code of Conduct
- Ford Fund Impact Report 2022
- Ford Pro Inflation Reduction Act website
- Ford Production Purchasing Global Terms and Conditions
- Ford’s Responsible Material Sourcing Policy
- Ford Supplemental Diversity Report
- Ford Vehicle Accessibility website
- Political Engagement Report 2022
- Proxy Statement 2023
- Supplier Code of Conduct
- U.S. EEO-1 Report
- We Are Committed to Protecting Human Rights and the Environment policy

# Disclaimers

1. Based on 2022 CY Motor Intelligence Data.
2. These targets have been approved by the Science Based Targets initiative.
3. See [Form 10-K](#), p.76-79 for definitions and reconciliations to GAAP (U.S. Generally Accepted Accounting Principles).
4. According to the EU End-of-Life Vehicle Directive.
5. Available feature. Includes a three-year connected service plan with regular map updates after which purchase is required. Requires FordPass® App [Lincoln Way® App] and modem activation. ADAS features are supplemental and do not replace the driver's attention, judgment and need to control the vehicle. Ford BlueCruise [Lincoln ActiveGlide™] is a hands-free highway driving feature. Only remove hands from the steering wheel when in a Hands-Free Blue Zone. Always watch the road and be prepared to resume control of the vehicle. It does not replace safe driving. See Owner's Manual for details and limitations.
6. Additional plants that support our Automotive segment are operated by unconsolidated joint ventures of which we are a partner. See [10-K](#) for more information.
7. Driver-assist features are supplemental and do not replace the driver's attention, judgment and need to control the vehicle. It does not replace safe driving. See Owner's Manual for details and limitations.
8. Pre-Collision Assist with Automatic Emergency Braking (AEB) can detect pedestrians, but not in all conditions, and does not replace safe driving. See your owner's manual for system limitations.
9. Based on 2022 CY Motor Intelligence Data.
10. Based on 1977-2022 CY total sales.
11. Based on original equipment manufacturers(OEM)/automotive manufacturers that sell all-electric vehicles and have active charging networks. Department of Energy data as of February 22, 2023 used. Numbers subject to change. FordPass® compatible with select smartphone platforms, is available via a download. Message and data rates may apply.
12. A recent survey in the UK showed that 61 per cent of disabled drivers would consider buying an electric vehicle only if charging was made more [accessible](#).
13. Based on the number of vocations in which registration are reported and volume reported in S&P Global Mobility CY January 2022-December 2022, US TIPNet, including Electric Cargo Vans, Passenger Vans, and Cutaway Vans.
14. Vehicle sector pathways for 1.5°C target setting have not yet been developed by SBTi.
15. Lifetime CO<sub>2</sub> emissions are calculated on a well-to-wheels basis, including CO<sub>2</sub> from the internal combustion vehicle (ICEV) tailpipe, ICEV fuel production, and EV electricity production.
  - 15a. Lifetime miles for F-150 Lightning/Pickup (225,865) and Mustang Mach-E/Car SUV (195,264) are defined in 40 CFR 86.1865 12(k)(4) and for E-Transit/Transit useful life (150,000) in 49 CFR 535.5 (a)(10)(ii).
  - 15b. Tailpipe (tank-to-wheels) CO<sub>2</sub> emissions are calculated by dividing 0.008887 metric tons CO<sub>2</sub>/gallon gasoline (EPA Automotive Trends Report) by the vehicle MPG and multiplying by the lifetime miles.
  - 15c. Fuel production CO<sub>2</sub> emissions (well-to-tank) are calculated by multiplying the tailpipe CO<sub>2</sub> by 0.25, following the [2021 U.S. EPA Automotive Trends Report methodology](#).
  - 15d. Electricity production CO<sub>2</sub> emissions are calculated by multiplying the EV kWh/100 miles by the electric grid CO<sub>2</sub>-intensity 0.000440 metric tons CO<sub>2</sub>e/kWh and multiplying by the lifetime miles.
16. The comparable internal combustion engine vehicle (ICEV) MPG are the preliminary 2021 model year segment-average real-world values for Car SUV (30.5 MPG) and pickup (19.4 MPG), from the 2021 U.S. EPA Automotive Trends report ([epa.gov/automotive-trends](https://epa.gov/automotive-trends)).
17. The 2022 model year F-150 Lightning Platinum (ext. range) and Mustang Mach-E RWD (base range) city and highway kWh/100 mile were obtained from [fuelconomy.gov/](https://fuelconomy.gov/) and weighted 43% city, 57% highway to get real-world combined kWh/100 mile, following the [2021 U.S. EPA Automotive Trends Report methodology](#): F-150 Lightning Platinum (ext. range) 51.7 kWh/100 miles and Mustang Mach-E RWD (base range) 33.3 kWh/100 miles.
18. Estimated city and highway MPG for ICEV Transit (130-inch wheelbase, low roof) analytically derived using models based on EPA test procedures and calculations for light-duty gasoline-powered vehicles set forth in 40 CFR Part 600, with inputs reflecting 2021 3.5L PFDI gasoline-powered Transit attributes including Average Loaded Vehicle Weight Engineering Test Weight (ALVW ETW). Applying the EPA trends report real-world weightings of 43% city and 57% highway, gives combined real-world 17.3 MPG. Estimates are illustrative only and not representative of all drivers or circumstances. Actual mileage will vary based on external environment (including ambient temperature), driving behaviors, payload, vehicle use, vehicle, charging habits, lithium-ion battery age and state of health, vehicle upfits and alterations, and other factors.
19. The estimated City and Highway kWh/100 miles for E-Transit (130-inch wheelbase, low roof) were analytically derived using models based on test procedures and calculations for light-duty electric vehicles set forth in 40 CFR Part 600, with inputs reflecting E-Transit attributes including Average Loaded Vehicle Weight Engineering Test Weight (ALVW ETW). Applying the EPA trends report real-world weightings of 43% city and 57% highway, gives combined real-world 62.3 kWh/100 miles. Estimates are illustrative only and not representative of all drivers or circumstances. Actual mileage will vary based on external environment (including ambient temperature), driving behaviors, payload, vehicle use, vehicle, charging habits, lithium-ion battery age and state of health, vehicle upfits and alterations, and other factors.

## Disclaimers – continued

- 20. The CO<sub>2</sub> savings from EVs are converted to an equivalent gallons of gasoline not used based on the [EPA Greenhouse Gas Equivalencies Calculator](#), which applies the factor 0.008887 metric tons CO<sub>2</sub> per gallon of gasoline consumed.
- 21. As defined by U.S. Federal Highway Administration.
- 22. Based on EPA tailpipe rating. Visit [fueleconomy.gov](https://www.fueleconomy.gov) for more information.
- 23. As of March 15, 2023.
- 24. Consumer Reports does not endorse services or products. To see the most recent ratings from Consumer Reports click [here](#).
- 25. Driver-assist features are supplemental and do not replace the driver's attention, judgment and the need to control the vehicle. Pre-collision Assist with Automatic Emergency Braking detects pedestrians, but not in all conditions, and can help avoid or reduce a collision. It does not replace safe driving. See Owner's Manual for details and limitations.
- 26. Data reported in 2022 calculated as of December 31, 2021.
- 27. Includes FFV credits. Does not include A/C, Off-Cycle credits, or Advanced Technology multipliers.
- 28. Data has been updated to reflect final values. Previous reporting based on preliminary data.
- 29. The China import and domestic (involving our joint ventures) fuel consumption values are reported separately.
- 30. Preliminary estimate of the on-road well-to-wheels GHG emissions from the vehicles Ford sold in 2022 over a 150,000 mile lifetime.
- 31. The CO<sub>2</sub>-intensity reduction relative to our base year decreased in 2022 (preliminary estimate) due to an increased share of sales of medium- and heavy-duty commercial vehicles compared to 2021.
- 32. Market-based value.
- 33. Miscellaneous Scope 3 emissions categories include upstream and downstream transportation and distribution, business travel, capital goods, franchises, etc.
- 34. Preliminary estimate of 2022 Scope 3 GHG emissions. Final data will be available in July 2023 and reported to CDP.
- 35. Preliminary estimate.
- 36. Passenger Car fleet average FTP NMOG + NO<sub>x</sub> Emissions from Tier 3 reports.
- 37. LDT2, LDT3, LDT4 & MDPV fleet average FTP NMOG + NO<sub>x</sub> Emissions from Tier 3 reporting data.
- 38. This data was collected and reported for the first time in 2021.
- 39. ZWTL sites decreased due to sale of 5 commercial/office buildings in Dearborn area.
- 40. Regions do not add up to 100% as they represent automotive only.
- 41. Prior to 2022 Ford Next was reported as Ford Mobility.
- 42. Excludes some Europe data in accordance with the German Works Council.
- 43. Global salaried employee gender percentages do not add up to 100% as there is a small percentage of unknown gender data that is not included.
- 44. Corporate Officers includes Executive Officers.
- 45. Women in Senior Management includes Corporate Officers.
- 46. Ethnicity numbers do not add up to 100% as there is a small percentage of unknown ethnicity data that is not included.
- 47. Includes Automotive, Ford Credit and Ford Next employees.
- 48. Other racial minority groups include Native Hawaiian or Pacific Islander, Native American/American Indian, and two or more races.
- 49. Prior to 2021 White was not reported as an ethnicity group.
- 50. Total minority, excluding white and a small percentage of unknown ethnicity data.
- 51. This data is self-reported by suppliers to Ford. Only includes certified diverse businesses.
- 52. For lost time case rate data only, South America is reported as part of International Markets Group (IMG) and included in the IMG number from 2020. South America data was not reported in 2021.
- 53. In 2020, there were no employee or contractor fatalities. In 2021, we experienced three fatalities within our operations and in 2022 experience two fatalities, both in our joint venture operations. Each loss of life is unacceptable. Consequently, cross-functional teams worked extensively to identify and implement controls to prevent recurrence of fatal hazards.
- 54. Confirmed harassment allegations (when the respondent is a salaried employee) that involve: sex- or race-related, hostile, demeaning or belittling behavior, whether it is physical, verbal or both.
- 55. Refers to confirmed harassment allegations as a percentage of the total population by region.
- 56. Headcount excludes Europe supervisor and below data, and some mid-management data in accordance with German Works Council. Europe mid-management and above headcount was taken from HCM Headcount report.
- 57. Closure audit score is an average of all follow-up audit scores conducted after the initial audit. There are generally 1–3 closure audits per Initial audit.
- 58. Other includes Traders, Mechanized Mines, and suppliers type unidentified.
- 59. As defined by OECD Due Diligence Guidance for responsible supply chains of minerals from Conflict-Affected and High Risk Countries.
- 60. Includes Takata Airbag and DPS6 transmission-related recalls.



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