

# 2023 BUSINESS IMPACT REPORT



JOHN DEERE

# 2023 Business Impact Report

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### Business Impact Report Databook

This Databook contains our SASB, UN SDGs and GRI indices, our Leap Ambition and Sustainability data charts, and our TCFD report.



### Supplemental Content

This Supplemental Content includes additional evergreen sustainability content.

# YEAR IN HIGHLIGHTS

**388 million**

Engaged Acres

**92M** Highly Engaged Acres

Intelligent Boom Control adoption grew from

**78% TO 86%\***

Grade management adoption grew from 32% to 45%\*

Roadbuilding solution adoption grew from 82.5% to 84.8%\*

**650K**  
Connected Machines

Served more than **113,000** youth across **35** company locations in eight countries through John Deere Inspire program

**15%**  reduction Scope 1 and 2 GHG Emissions\*\*

John Deere Foundation made three of the largest grants in its 75-year history, directing **\$19M** to organizations working to eliminate hunger

African American representation in Senior Management grew from

**11.3% TO 13.9%\***

Women in STEM-Related Positions grew from

**15.2% TO 19.8%\***



**\$61.25B**

Net Sales and Revenues

**21.9%**

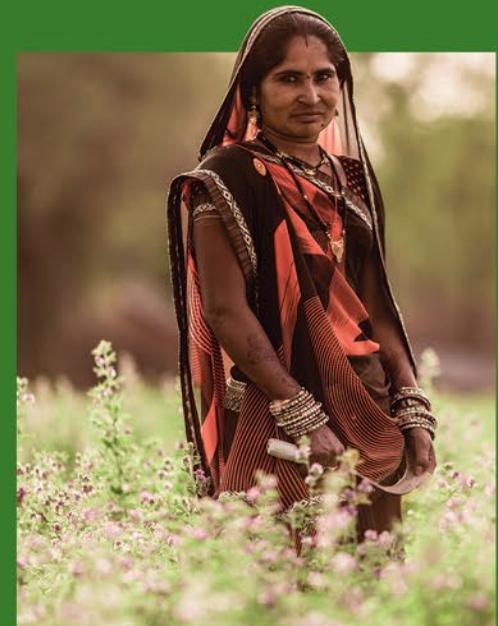
Equipment Operations OROS\*\*\*  
(Operating Return on Sales)

**\$9.32B**

Shareholder Value Added (SVA)\*\*\*



[Click here to see our full sustainability metrics](#)



\*From fiscal year 2022 to fiscal year 2023.

\*\*From fiscal year 2021 baseline.

\*\*\*Operating Return on Sales (OROS), and Shareholder Value Added (SVA) are non-GAAP (general accepted accounting principles) measures. For reconciliations of OROS to the most directly comparable GAAP measure (net income attributable to Deere & Company), and for more information on SVA and reconciliations of SVA, see page 10.

## CHAIRMAN AND CEO LETTER

John Deere had an outstanding year in 2023, delivering strong performance and making a significant positive impact on those we serve.

In this inaugural Business Impact Report, we are proud to share the financial and sustainable outcomes accomplished by John Deere this year. This comprehensive report highlights our dedication to creating long-term value for all stakeholders.

Financially, 2023 was a remarkable year for us. Our net income reached a notable \$10.17 billion, surpassing the previous year's \$7.13 billion. Our net sales and revenues experienced a 16% increase, totaling \$61.25 billion. And our profitability reached impressive levels, a significant milestone for two key reasons. First, this success was achieved despite ongoing inflationary pressures. Second, it is critical in enabling us to continue investing in the next generation of solutions for our customers.

We also generated significant cash flow which, in addition to investing in our business, we returned to shareholders through share repurchases of over \$7 billion while simultaneously increasing the quarterly dividend by nearly 20%.

### LEAPING TO A BETTER FUTURE

Our impact extended far beyond financial success. We made strategic investments that advanced our Smart Industrial Operating Model and reinforced the achievement of our Leap Ambitions. These ambitious goals focus on delivering exceptional financial and sustainable outcomes for our customers and all stakeholders, creating lasting value while also making a meaningful difference throughout the world.

For instance, in our Ag & Turf Division we launched a groundbreaking planting technology called ExactShot™ that reduces the amount of starter fertilizer needed during planting by more than 60%. We also made our advanced camera detection and artificial intelligence systems from our revolutionary See & Spray™ platform available as a precision upgrade for previous-generation sprayers, reducing herbicide use, lowering costs, and minimizing impact on crops and the land. And we extended our smarter spraying capabilities by acquiring Smart Apply, an intelligent spray control system that enhances the precision and performance of air-blast sprayers used in orchards, vineyards, and tree nurseries.

**“[Our Leap Ambitions] focus on delivering exceptional financial and sustainable outcomes for our customers and all stakeholders, creating lasting value while also making a meaningful difference throughout the world. For instance, in our Ag & Turf Division we launched a groundbreaking planting technology called ExactShot™ that reduces the amount of starter fertilizer needed during planting by more than 60%.”**

### JOHN MAY

*Chairman and CEO  
John Deere*



We also introduced several new products and upgrades that support our Construction & Forestry customers in working smarter, safer, and more sustainably. Our P-Tier line of excavators, optimized for increased productivity, efficiency, and reduced CO<sub>2</sub>e emissions, has been well-received in the market. We expanded our Operations Center to include the Wirtgen Group's equipment, unlocking enhanced operational analysis, monitoring, and project planning opportunities for our roadbuilding customers. Looking ahead, we are excited about our upcoming X-Tier Loaders with E-Drive technology, slated to deliver fuel savings, emission reductions, and productivity gains for our customers in 2024.

**To support our Leap Ambition of reducing variability in our performance by achieving 10% recurring revenue by 2030, we are implementing a Solutions as a Service business model. This shift involves transitioning certain solutions from a traditional upfront, one-time purchase model to a renewal-based structure. This benefits our customers by shifting cost from the up-front sale to technology utilization, paying for what their operation needs, and delivering continuous improvement of products over time.**

Further demonstrating our commitment to sustainability, we are actively engaged in research and development, as well as collaboration efforts, to reduce our downstream greenhouse gas emissions. For example, we are enhancing our best-in-class engine technology to achieve higher levels of efficiency and sustainable performance. Additionally, we are driving advancements in battery technology beyond our strategic investment in Kreisler Electric, including exploring full battery electric or hybrid applications across our product lines. And our belief in biofuels as a significant opportunity to drive additional demand for the grains and oilseeds our customers grow, while also fostering a sustainable future

for our larger products, further guides our investments and advocacy to enable agriculture to play a critical role in making transportation more sustainable.

#### **EMPOWERING POSITIVE CHANGE**

We are incredibly proud to celebrate the 75th anniversary of the John Deere Foundation and reflect on its impactful contributions. Over the years, the Foundation has invested more than \$400 million in nonprofit organizations, with a remarkable \$100 million given in just the last five years. This support extends to our Deere home communities and farmers around the world, making a difference where it matters most.

In 2023, the John Deere Foundation announced three of the largest grants in its 75-year history by directing \$19 million toward initiatives focused on eliminating hunger by increasing food access, uplifting resource-constrained farmers, and strengthening global food systems. These efforts are aimed at creating sustainable solutions and making a positive impact on food security worldwide.

Whether through donating to food banks for emergency hunger assistance or volunteering with local organizations, the entire Deere family is committed to working together to create meaningful impact. That's why it was a true honor for us to be recognized for the second consecutive year as one of the 50 most community-minded companies in the U.S. by Points of Light, the world's largest nonprofit dedicated to accelerating people-powered change.

It goes without saying that none of these accomplishments would have been possible without the dedication and passion of our remarkable employees. They are the driving force behind our success, and we are grateful for their continued commitment.

To ensure we continue to attract and retain talent with the skills to solve our customers' biggest challenges, this year we introduced a

comprehensive People Strategy aimed at delivering an unmatched employee experience. This multiyear strategy is focused on inspiring and engaging our employees, building our global talent pipeline, refreshing our culture, and ensuring we have the data, technology, and insights to effectively manage and develop our global workforce. What's more, we remain fully committed to fostering an inclusive workplace where everyone feels welcomed and valued, and where every individual can thrive and contribute their unique perspectives and talents.

#### **EMBRACING CHALLENGES, HARNESSING OPPORTUNITIES**

As I reflect on our achievements in 2023, many of which are included in this Business Impact Report, I am proud of the outcomes we achieved together.

Looking to the future, we are fully committed to creating lasting value for all stakeholders, delivering exceptional customer outcomes, and driving sustainable practices that make a meaningful difference. And while markets may fluctuate due to global economic uncertainties, geopolitical instability, and weather variability, I am excited about what lies ahead for us. I truly believe that we have the power to make a significant positive influence on our stakeholders and the world around us.

Finally, thank you for your continued support and belief in our company. As we move ahead, rest assured we will continue to push boundaries, innovate, and strive to achieve our higher purpose: We run so life can leap forward.

Respectfully,



Chairman and CEO

# *Financial Performance and Strategy*



# LEAP AMBITIONS

JOHN DEERE is uniquely positioned to deliver both **ECONOMIC** and **SUSTAINABLE VALUE** for our customers through **ADVANCED TECHNOLOGY** and **SOLUTIONS**.



INCREMENTAL ADDRESSABLE MARKET OPPORTUNITY

> \$150  
BILLION USD



## PRODUCTION & PRECISION AG

### By 2026

- Reach 500 million engaged acres\* with 50% highly engaged\*\*

### By 2030

- Ensure 75% of engaged acres are sustainably engaged acres\*\*\*



## SMALL AG & TURF

### By 2026

- Ensure 100% of new Small Ag equipment is connectivity enabled
- Offer an electric option in each Turf and Compact Utility Tractor product family
- Deliver a fully autonomous, battery-powered electric ag tractor to the market



## CONSTRUCTION & FORESTRY

### By 2026

- Deliver 20+ electric and hybrid-electric product models
- Earthmoving: Increase Grade Management adoption to 50%
- Forestry: Boost Intelligent Boom Control adoption to 100%
- Roadbuilding: Increase Precision Roadbuilding Solutions adoption to 85%

DELIVER ONGOING VALUE TO CUSTOMERS IN ALL THREE BUSINESS SEGMENTS

Connect **1.5 million** machines by 2026

Demonstrate viable **low/no carbon** alternative power solutions by 2026

Deliver and scale **Solutions as a Service** business model by 2030

## FINANCIAL AND SUSTAINABLE OUTCOMES



### Financial Outcomes by 2030

- Expand Equipment Operations OROS to 20%
- Grow enterprise recurring revenue to 10%



### Product Circularity by 2030

- Achieve 95% recyclable product content
- Ensure 65% of product content is sustainable material
- Grow 50% in remanufacturing revenue



### Enhance Ag Customer Outcomes by 2030

- Improve nitrogen use efficiency 20%†
- Increase crop protection efficiency 20%†
- Reduce 15% of customer CO<sub>2</sub>e emissions†



### Safety by 2026

- Improve Total Recordable Incident Rate 20%



### Reduce Environmental Footprint by 2030

- 50% of operational CO<sub>2</sub>e emissions (Scope 1 & 2)
- 30% of upstream and downstream CO<sub>2</sub>e emissions (Scope 3)
- 15% of waste intensity
- 10% freshwater consumption intensity at water-stressed manufacturing locations

\* Engaged acres is one of the foundational measures of customers' use of the John Deere Operations Center™ (our online farm management system). It reflects the number of unique acres with at least one operation pass documented in the Operations Center in the past 12 months.

\*\* Highly Engaged Acres include documentation of multiple production steps and the use of digital tools to complete multiple, value creating activities over a 12-month period.

\*\*\* Sustainably engaged acres include incorporation of two or more sustainable John Deere technology solutions or sustainable practices over a 12-month period.  
†Per unit of output.

## SMART INDUSTRIAL OPERATING MODEL

In 2020, the Smart Industrial Operating Model was designed and announced with the intention to propel our success and customer success to the highest levels. Since then, the operating model has continued to produce strong results, allowing us to focus on our objective of making our customers more profitable, more productive, and operating in a more sustainable way. We also sharpened our focus on our business portfolio through disciplined capital allocation and made significant strides in technological advancements.

The operating model is designed around the needs of our customer and organized by production systems — the way our customers work. Additionally, a centralized technology stack ensures streamlined operations, while a heightened emphasis on delivering value throughout the product lifecycle underscores our commitment to customer satisfaction. With a legacy of manufacturing excellence, the operating model emphasizes the importance of speed, accountability and driving continuous improvement.

Our Leap Ambitions — the outcomes by which we measure success — showcase the capabilities of our Smart Industrial Operating Model. These metrics serve a crucial purpose in demonstrating the value we create for our customers. Importantly, they also highlight the significant growth potential that lies ahead for John Deere, identifying an incremental addressable market opportunity of at least \$150 billion USD.

## NEW LEAP AMBITION: SOLUTIONS AS A SERVICE

Delivering and scaling our Solutions as a Service business model will deliver another leap forward for our customers, our dealers, and John Deere. The Solutions as a Service customer value proposition has three key elements: 1) It will allow lower up-front costs to engage our world-class technology, 2) It will allow customers to only pay for the technology they use, and 3) The technology will get better over time.

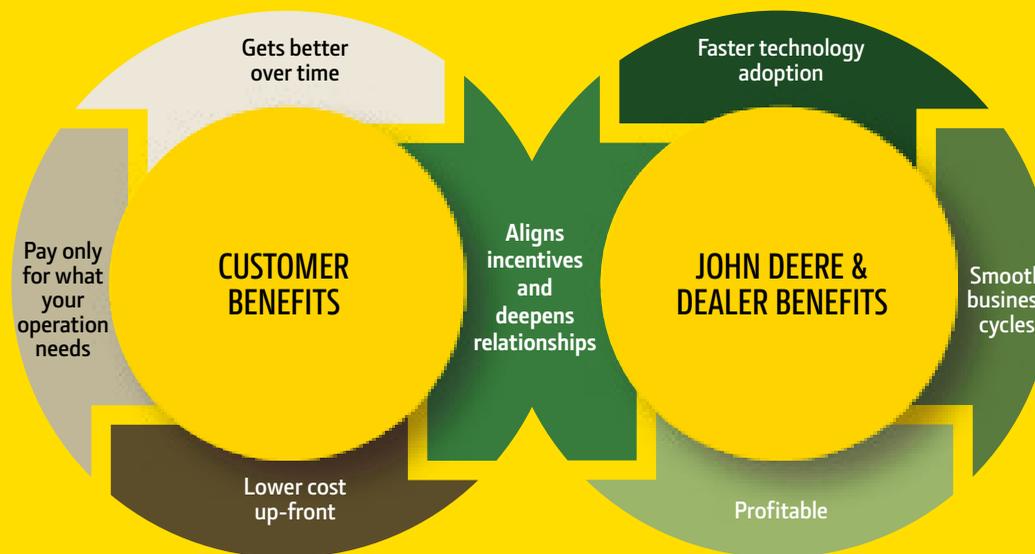
This model will closely align and deepen our relationship with customers, allowing us to scale our technology across more acres, more quickly, while bringing cutting-edge technology not just to new machines, but to the entire installed base via retrofittable options.

A Solutions as a Service business model will deliver more consistent revenue and profit stability, as well as allow us to reinvest in our solutions more consistently, continually improving the value we can create for our customers.

Ultimately, scaling this model will be the key to achieving our goal of 10% recurring revenue by 2030 and delivers on the promise of significant value creation for John Deere shareholders.



## SOLUTIONS AS A SERVICE



**“We are revolutionizing the ways our customers can maximize the capabilities of their equipment, investing only in the technology and services that deliver the greatest value, while at the same time delivering steady revenue streams for our dealers and Deere.”**

**JUSTIN ROSE**

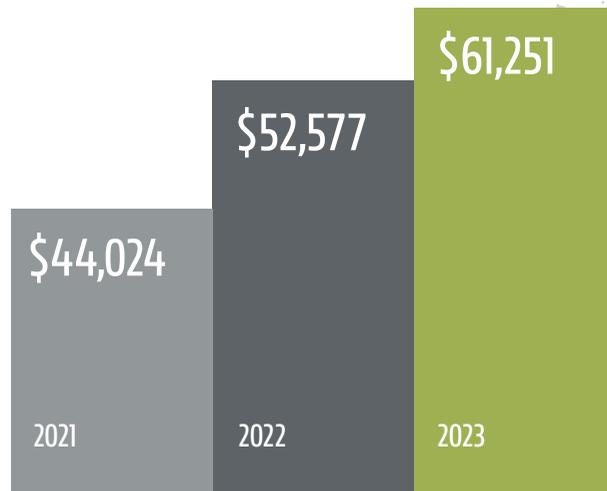
*President, Lifecycle Solutions, Supply Management, and Customer Success*

# FINANCIAL HEALTH & PERFORMANCE

Margin Growth Coupled With Disciplined Asset Management

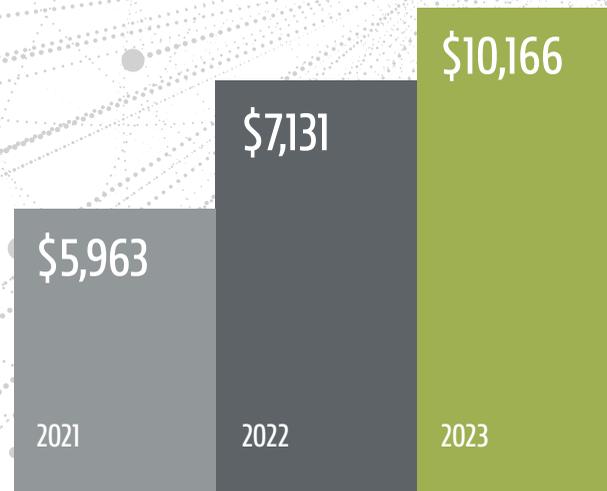
## NET SALES & REVENUES

**\$61.25**  
BILLION



## NET INCOME

**\$10.17**  
BILLION



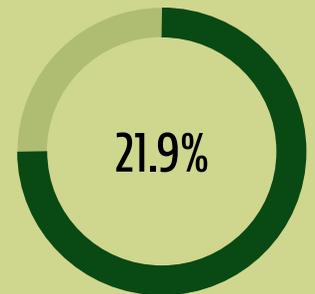
The amounts shown in the charts above represent millions of dollars (USD).

## Exceptional Operating Performance — OROS, OROA, and SVA

Our business strategy emphasizes achieving superior operating and financial performance through aggressive goals for operating margin, asset management, and value creation from disciplined capital allocation. The metrics we use to measure progress towards these goals include OROS (Operating Return on Sales), OROA (Operating Return on Assets), and SVA (Shareholder Value Added).

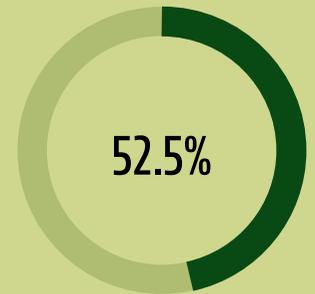
### OROS (Operating Return on Sales)

Our focus on increasing customer value through technological innovation, engineering and manufacturing excellence, and a world-class dealer channel will lead to structurally improved financials for our customers and Deere. OROS (for our equipment operations) demonstrates the commitment to deliver operating margin growth, reflected in our Leap Ambitions to expand equipment operations OROS to 20% at mid-cycle by 2030.



### OROA (Operating Return on Assets)

In support of our continued focus on sound investment of capital and asset utilization, Deere equipment operations are targeting an operating return on operating assets (OROA) of 30% at mid-cycle sales volumes and equally ambitious returns at other points in the cycle.



Operating Return on Operating Assets (OROA), Operating Return on Sales (OROS), and Shareholder Value Added (SVA) are non-GAAP (general accepted accounting principles) measures. For reconciliations of OROA and OROS to the most directly comparable GAAP measure (net income attributable to Deere & Company), and for more information on SVA and reconciliations of SVA, see page 10.

## SVA (SHAREHOLDER VALUE ADDED)

The difference between operating profit and pretax cost of capital, SVA is a metric used by John Deere to evaluate business results and measure sustainable performance. We believe we can realize sustainable improvement in SVA through strong margins delivered in connection with the evolution of the agriculture and construction industries. Through the rapid introduction of new technologies and a disciplined approach to the allocation of capital for research and investment dollars, we believe we can target the most promising and profitable opportunities unlocking value for our customers. The information presented is for the years ended October 29, 2023; October 30, 2022; and October 31, 2021.

### SHAREHOLDER VALUE ADDED



The amounts shown in the charts above represent millions of dollars.

SVA is a non-GAAP measure that management believes is an appropriate measure for the performance of our businesses. SVA is, in effect, the pretax profit left over after subtracting the cost of enterprise capital. We are aiming for a sustained creation of SVA and are using this metric for various performance goals. Certain compensation is also determined on the basis of performance using this measure. For purposes of determining SVA, each of the equipment segments is assessed a pretax cost of assets, which on an annual basis is approximately 12% of the segment's average identifiable operating assets during the applicable period with inventory at standard cost. Management believes that valuing inventories at standard cost more closely approximates the current cost of inventory and our investment in the asset. The Financial Services segment is assessed an annual pretax cost of approximately 13% of the segment's average equity. The cost of assets or equity, as applicable, is deducted from the operating profit or added to the operating loss of each segment to determine the amount of SVA.

Identifiable assets assigned to the operating segments are those the units actively manage, consisting of trade receivables, inventories, property and equipment, intangible assets, and certain other assets.

EQUIPMENT OPERATIONS (Millions of \$)	2023	2022	2021
Net Sales	\$55,565	\$47,917	\$39,737
Average Identifiable Assets			
With Inventories as Reported	\$21,114	\$19,420	\$16,680
With Inventories at Standard Cost	\$23,186	\$20,983	\$18,045
Operating Profit	\$12,163	\$8,349	\$6,868
Percent of Net Sales	21.9%	17.4%	17.3%
Operating Return on Assets			
With Inventories as Reported	57.6%	43.0%	41.2%
With Inventories at Standard Cost	52.5%	39.8%	38.1%
SVA Cost of Assets	\$(2,782)	\$(2,519)	\$(2,165)
SVA	\$9,381	\$5,830	\$4,703

SMALL AGRICULTURE & TURF (Millions of \$)	2023	2022	2021
Net Sales	\$13,980	\$13,381	\$11,860
Average Identifiable Assets			
With Inventories as Reported	\$4,601	\$4,349	\$3,625
With Inventories at Standard Cost	\$5,149	\$4,795	\$4,047
Operating Profit	\$2,472	\$1,949	\$2,045
Percent of Net Sales	17.7%	14.6%	17.2%
Operating Return on Assets			
With Inventories as Reported	53.7%	44.8%	56.4%
With Inventories at Standard Cost	48.0%	40.6%	50.5%
SVA Cost of Assets	\$(618)	\$(576)	\$(486)
SVA	\$1,854	\$1,373	\$1,559

RECONCILIATION OF GAAP NET INCOME TO OPERATING PROFIT:	2023	2022	2021
<b>Net Income Attributable to Deere &amp; Company</b>	<b>\$10,166</b>	<b>\$7,131</b>	<b>\$5,963</b>
Net Income Attributable to Noncontrolling Interests	\$(11)	\$(1)	\$2
Net Income	\$10,155	\$7,130	\$5,965
Income Taxes	\$(2,871)	\$(2,007)	\$(1,658)
Corporate Expenses — Net	\$(252)	\$(255)	\$(241)
Pension and OPEB Benefit (Cost) Excluding Service Cost Component	\$286	\$218	\$183
Foreign Exchange Gain From Equipment Operations Financing Activities	\$(114)	\$(103)	\$(45)
Interest Expense	\$(411)	\$(390)	\$(368)
Interest Income	\$559	\$159	\$82
Total Operating Profit	\$12,958	\$9,508	\$8,012
Less Financial Services Operating Profit	\$795	\$1,159	\$1,144
<b>Operating Profit — Equipment Operations</b>	<b>\$12,163</b>	<b>\$8,349</b>	<b>\$6,868</b>

PRODUCTION & PRECISION AG (Millions of \$)	2023	2022	2021
Net Sales	\$26,790	\$22,002	\$16,509
Average Identifiable Assets			
With Inventories as Reported	\$9,256	\$8,336	\$6,640
With Inventories at Standard Cost	\$10,343	\$9,118	\$7,321
Operating Profit	\$6,996	\$4,386	\$3,334
Percent of Net Sales	26.1%	19.9%	20.2%
Operating Return on Assets			
With Inventories as Reported	75.6%	52.6%	50.2%
With Inventories at Standard Cost	67.6%	48.1%	45.5%
SVA Cost of Assets	\$(1,241)	\$(1,094)	\$(878)
SVA	\$5,755	\$3,292	\$2,456

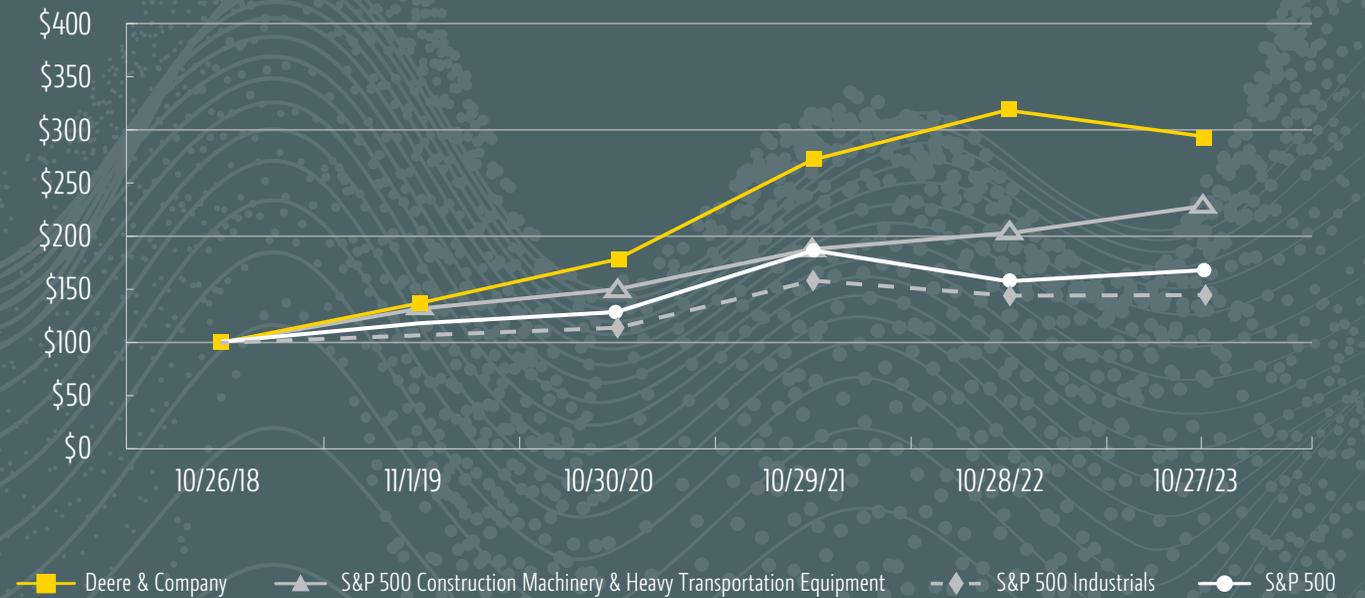
CONSTRUCTION & FORESTRY (Millions of \$)	2023	2022	2021
Net Sales	\$14,795	\$12,534	\$11,368
Average Identifiable Assets			
With Inventories as Reported	\$7,257	\$6,735	\$6,415
With Inventories at Standard Cost	\$7,694	\$7,070	\$6,677
Operating Profit	\$2,695	\$2,014	\$1,489
Percent of Net Sales	18.2%	16.1%	13.1%
Operating Return on Assets			
With Inventories as Reported	37.1%	29.9%	23.2%
With Inventories at Standard Cost	35.0%	28.5%	22.3%
SVA Cost of Assets	\$(923)	\$(849)	\$(801)
SVA	\$1,772	\$1,165	\$688

FINANCIAL SERVICES (Millions of \$)	2023	2022	2021
Net Income Attributable to Deere & Company	\$619	\$880	\$881
Average Equity	\$6,588	\$5,725	\$5,497
Return on Equity	9.4%	15.4%	16.0%
Operating Profit	\$795	\$1,159	\$1,144
Cost of Equity	\$(858)	\$(760)	\$(719)
SVA	\$(63)	\$399	\$425

# STOCK PERFORMANCE

The graph compares the cumulative total returns of Deere & Company, the Standard & Poor's (S&P) Construction Machinery & Heavy Transportation Equipment Index, the S&P 500 Industrials, and the S&P 500 Stock Index over a five-year period. It assumes \$100 was invested on October 26, 2018, and that dividends were reinvested. Our stock price at October 27, 2023, was \$361.15. The S&P 500 Industrials comprises those companies included in the S&P 500's that are classified as members of the GICS industrials sector, and therefore, have many characteristics similar to us, regardless of the specific types of products they offer. The S&P 500 Construction & Farm Machinery Index is made up of four companies Caterpillar (CAT), Cummins (CMI), Paccar (PCAR), and Wabtec (WAB). The stock performance shown in the graph is not intended to forecast and does not necessarily indicate future stock price performance.

## COMPARISON OF 5-YEAR TOTAL CUMULATIVE RETURN\*



\*\$100 invested on 10/26/2018 in stock or index, including reinvestment of dividends.

### DIVIDENDS AND SHARE REPURCHASE

	Dividend Declared per Share	Share Repurchase Spend (\$Bn)*
FY21	\$3.61/share	\$2.538
FY22	\$4.36/share	\$3.597
FY23	\$5.05/share	\$7.216

Deere & Company returned 73% of cash flow from equipment operations to shareholders in FY2023.

Deere & Company has returned 71% of cash flow from equipment operations to shareholders over the past 3 years (FY2021-FY2023).

### TSR PERFORMANCE

	2018	2019	2020	2021	2022	2023
Deere & Company	\$100.00	\$134.98	\$176.31	\$270.06	\$317.07	\$292.18
S&P 500 Construction Machinery & Heavy Transportation Equipment	\$100.00	\$133.71	\$150.24	\$187.78	\$204.10	\$227.67
S&P 500	\$100.00	\$117.76	\$127.95	\$182.86	\$157.30	\$168.81
S&P 500 Industrials	\$100.00	\$118.76	\$114.80	\$160.53	\$147.88	\$153.41

# *Customer Outcomes*





## OUR PRIORITIES

### DEVELOPING SOLUTIONS THAT DELIVER ALIGNED SUSTAINABLE AND FINANCIAL OUTCOMES FOR CUSTOMERS

- 1.5 million connected machines by 2026 is the foundation of Deere’s solutions road map
- Partnering with customers through engaged, highly engaged, and sustainably engaged acres to further unlock innovation opportunities for farmers
- Crop protection and nitrogen use efficiency goals to drive productivity and reduce ag customer CO<sub>2</sub>e emissions
- Smart solution adoption targets to deliver more precision and unlock more productivity and profitability on the jobsite for earthmoving, roadbuilding, and forestry customers

## WHAT WE HAVE DONE

- Surpassed 1 million acres covered using See & Spray™ technology, which helped farmers achieve nearly two-thirds reduction in solution, saving over 8 million gallons<sup>1</sup>
- Launched Milk Sustainability Center through a strategic partnership with DeLaval
- Enabled U.S. customers to easily sign up for programs incentivizing sustainable practices with the launch of Sustainability Section in John Deere Operations Center™
- Expanded smarter-spray offerings with acquisition of Smart Apply Inc.
- Expanded John Deere Operations Center to Construction, Forestry, and Roadbuilding production systems
- Leveraged Precision Ag technologies to unlock efficiencies in Hay and Silage Production
- Announced ExactShot™ in-furrow liquid fertilizer system at CES® 2023. [Click here](#) to learn more about ExactShot

LEAP AMBITION	TARGET YEAR	PROGRESS
1.5 million connected machines	2026	650K connected machines
500 million engaged acres	2026	388M engaged acres
50% engaged acres are highly engaged acres	2026	92M highly engaged acres
75% engaged acres are sustainably engaged acres	2030	160M sustainably engaged acres
50% Grade Management adoption	2026	45% adoption on eligible machines
100% Intelligent Boom Control adoption	2026	86% adoption on eligible machines
85% Precision Roadbuilding Solution adoption	2026	84.8% adoption on eligible machines
20% increase in crop protection efficiency <sup>2</sup>	2030	7% increase
20% improvement in nitrogen use efficiency <sup>2</sup>	2030	5% improvement
15% reduction of customer CO <sub>2</sub> e emissions <sup>2</sup>	2030	9% reduction

<sup>1</sup>See page 20 and 21 for more information.

<sup>2</sup>Crop protection efficiency, nitrogen use efficiency, and customer CO<sub>2</sub>e emissions are based on per unit of output and have progress reported based on 2022 results compared to the 2021 baseline.



[Click here to see our full sustainability metrics.](#)

## SUSTAINABLE DAIRY & LIVESTOCK

We are strategically collaborating with our customers and other stakeholders within the dairy and livestock value chain to unlock opportunities to produce more with less.

Over the past two decades, milk production has grown by 53% while livestock production increased 45%.<sup>1</sup> As the desire for more protein-rich diets spreads throughout the world, those upward trends are not slowing down.

Despite great productivity gains, these increases come with environmental challenges that producers are addressing through partnerships, innovation, and overall stewardship of the land. For example, the European Union (EU)'s Green Deal has set goals for reducing nutrient losses by at least 50% and reducing fertilizer use by at least 20% by 2030.<sup>2</sup>

Our Leap Ambition goals for sustainably engaged acres, nitrogen use efficiency,

and CO<sub>2</sub>e reductions are aimed at helping our customers navigate requirements like those in the EU's Green Deal while also meeting their overall business and sustainability goals. John Deere continues to offer an expanding suite of solutions to customers to achieve their optimal outcomes using advanced technologies integrated with core John Deere products.

## EUROPEAN UNION GREEN DEAL GOALS

REDUCE NUTRIENT LOSSES BY AT LEAST

**50%**

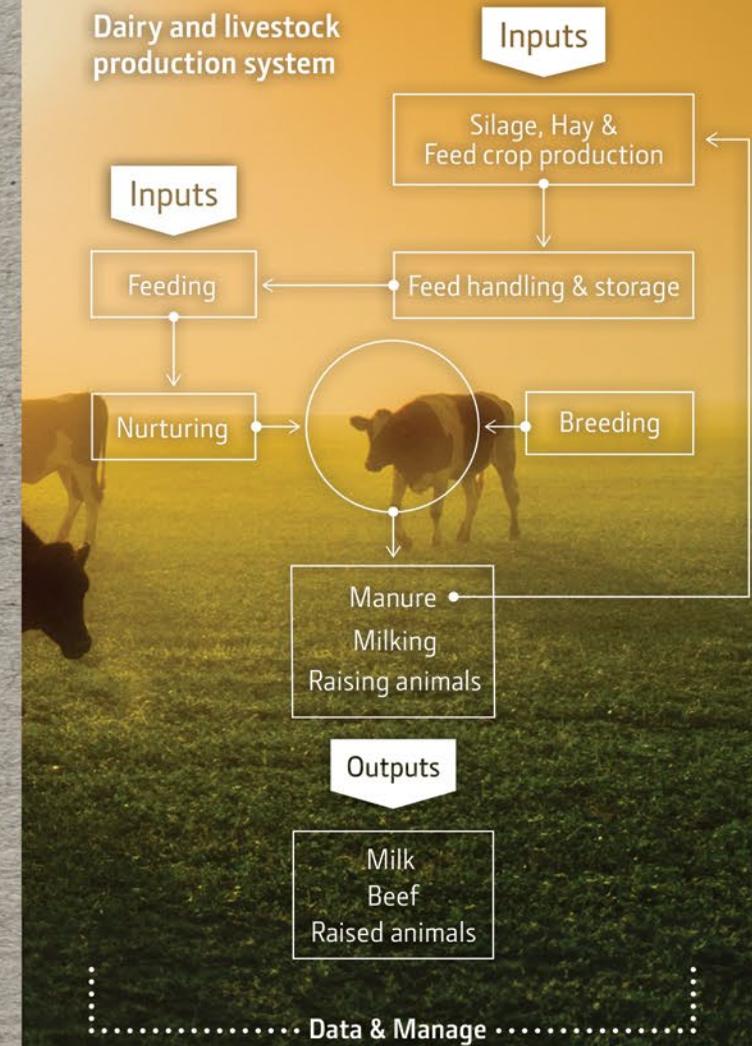
REDUCE FERTILIZER USE BY AT LEAST

**20%<sup>2</sup>**

MILK PRODUCTION HAS GROWN BY

**53%**

WHILE LIVESTOCK PRODUCTION INCREASED 45%<sup>1</sup>





**A HOLISTIC DAIRY FARM MANAGEMENT APPROACH**

Dairy is a unique industry that intertwines crop and animal production, to ultimately create nutrients, milk, cheese, yogurt, and meat. The data and management of dairy products is complicated, involving many steps to manage the welfare of the cows, along with the production of the crops to feed them.

That's why we've formed a strategic partnership with DeLaval to launch the Milk Sustainability Center (MSC) in an effort to create opportunities for dairy farmers to manage data more efficiently while unlocking more sustainable and profitable outcomes. MSC is built and powered by Dairy Data Warehouse BV (DDW), a Dutch company offering data solutions for sustainable dairy.

**“Dairy farming is perhaps the most complex agricultural business today with no system integration between crop and animal performance. Dairy farmers often use five to seven different, non-connected software solutions to run their business. The MSC will enable dairy farmers to calculate, benchmark, simulate, and optimize nutrient use efficiency (NUE) and CO<sub>2</sub>e for sustainable and profitable decision-making.”**

**DAVE CHIPAK**

*Director,  
Dairy & Livestock  
Production Systems  
at John Deere*



MSC is a cloud-based tool for desktop and mobile devices that offers the combination of field and barn data aimed at allowing producers access to comprehensive data to make the best holistic decisions for their operations. MSC is designed to excel in offering the linkage of continuous data flow between the animal and the field. We expect this will provide key insights and opportunities for customers to maximize profit and minimize the environmental milk-production footprint.

Individual herd and field data can be automatically aggregated to minimize manual entry. MSC can provide recommendations, benchmarking, simulation, and economic analysis in real time. MSC will be launched first in the U.S., Canada, and select European countries. MSC relies on a confidence indicator to show how granular and accurate the data input is while providing recommendations to optimize profit and minimize emissions.

Within MSC, data can be aggregated in a carbon footprint and nutrient management dashboard to display a producer's operation. The total carbon footprint of the farm's operations can be displayed based on:

- | Carbon footprint per animal in CO<sub>2</sub>e/head
- | Carbon footprint per area of land in CO<sub>2</sub>e/ha
- | Carbon footprint per milk in kg CO<sub>2</sub>e/kg Energy Corrected Milk (ECM)

The dashboard can also show the results for the most important nutrients (nitrogen, phosphorus, and potassium) on a dairy farm and how efficiently they are being used based on various scales like total farm, total fields, and total barns. Nutrient use efficiency is a great indicator that can help reduce environmental impact and maximize profit.



**“MSC uses the power and insight of data to give dairy farmers an overall view of their operation and then allows them to dig as deep as they want into each aspect of their business. It not only can keep them seamlessly connected to what's happening, but layers information so they can make informed decisions.”**

**ALEXANDER BERGES**

*Production System  
Manager*



**GRASSLAND EFFICIENCY GAINS**

Hay is a primary food source for cattle. Harvesting hay is a multistep process involving multiple passes through the field to mow the grass, spread it out to dry, rake it, and finally to either bale or chop it before it is collected from the field. These steps often take place in smaller fields with complex borders, and each production step requires dedicated equipment with varying track spacing and working widths. These dynamics lead some producers to create individual path plans for these steps or — in most cases — manually steer. However, that can be a time-consuming process, leaving the producer with the likelihood of soil damage and contamination to the crop.

AutoPath™ is an existing John Deere technology that can help farmers be more efficient in their guidance planning and management. This solution can improve efficiencies in the complicated harvest of a key food source for livestock and dairy cows.

By using AutoPath, an operator can create a full-field guidance plan that aligns with a selected field boundary within two minutes and save the plan as a template for reuse or modification in the future. AutoPath technology can efficiently map and connect the path plans of these multiple passes, which may lead to lower input costs, reduced operator fatigue, and potentially improved yield and crop quality.

On top of the benefits of AutoPath, this technology can offer hay producers the opportunity to adopt and apply Controlled Traffic Farming (CTF) strategies in grassland (hay and silage) management. CTF practice reuses the wheel tracks for multiple passes in hay and silage production. CTF may improve yields in grassland up to 15%<sup>3</sup> while reducing forage contamination from soil up to 2%.<sup>4</sup> This means CTF adoption may result in higher forage consumption, increased milk production, and a higher return per cow of more than \$60 (USD).<sup>4</sup>

**POTENTIAL BENEFITS OF AUTOPATH ON GRASSLAND MANAGEMENT <sup>5</sup>:**

- | Reduction of wheel traffic in the field by 10% compared to manual steering.
- | Job efficiencies can increase by 14% from reduction in machine overlap.
- | Total processing time may decrease by 12%.
- | Offboard generation of the path plan can reduce infield setup by up to 90%.
- | Fuel consumption can decrease by up to 10%, potentially reducing CO<sub>2</sub>e emissions by nearly 15%.



**SILAGE SYSTEM EFFICIENCIES**

Precision agriculture technologies also play a key role in corn silage production. Corn silage is created by harvesting a corn crop and preserving it. Corn silage serves as a year-round high-energy feed source for cattle in dairy and livestock operations.

Using Deere technologies such as AutoTrac™, AutoPath, iALG, John Deere Operations Center™, AutoSetup™, HarvestLab™ 3000, and StarFire™ RTK receiver in these steps can unlock key financial and sustainable outcomes within the production of corn silage.

**For example, HarvestLab 3000 can provide efficiencies in the slurry injection phase and during harvest:**

Manure application: Farmers apply manure to the field, providing a natural, organic source of nutrients to enable crop growth. HarvestLab 3000 near-infrared (NIR) sensors allow for more uniform distribution of these nutrients when applying them to a field. A pass to complete slurry injection can be combined with a strip-tillage pass, combining two passes into one on the field. Strip till is a conservation tillage method that leaves more than 60% of the field untilled.<sup>6</sup>

Harvest: HarvestLab 3000 can detect key characteristics of the crop such as moisture and crude protein to better understand the performance of the silage being harvested. This can not only unlock the best quality within the crop but allows for maps to be created to calculate nitrogen removal and use efficiency for future manure-application optimization.

If conservation methods and precision technologies such as HarvestLab 3000 are utilized; we estimate that a producer may unlock the following sustainable outcomes:<sup>7</sup>

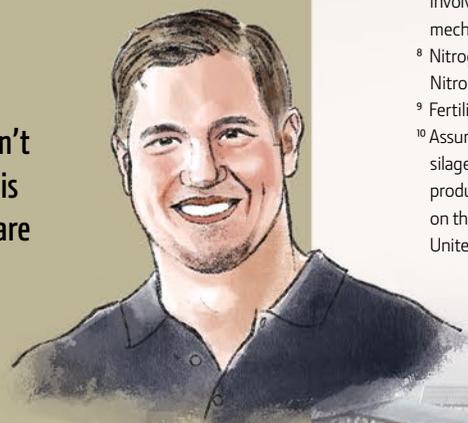
34% improvement in nitrogen use efficiency<sup>8</sup>

77% reduction of nitrogen losses<sup>9</sup>

28% reduction in CO<sub>2</sub>e emission per ton of silage<sup>10</sup>

**“John Deere not only provided solutions, but their technology has helped eliminate a lot of guesswork and headaches. I won’t say the work is easy now, but it is certainly easier and the results are better yields.”**

**STEFAN VOGELSANG**  
John Deere Customer  
and Farmer in Germany



<sup>1</sup> Food and Agriculture Organization of the United Nations, *Statistical Yearbook World Food and Agriculture 2022*, <https://www.fao.org/3/cc221en/cc221en.pdf> (2023).

<sup>2</sup> European Commission, *Sustainable use of nutrients*, [https://agriculture.ec.europa.eu/sustainability/environmental-sustainability/low-input-farming/nutrients\\_en#:~:text=As%20part%20of%20the%20Farm%20to%20Fork%20strategy,reduction%20in%20fertiliser%20use%20of%20at%20least%2020%25](https://agriculture.ec.europa.eu/sustainability/environmental-sustainability/low-input-farming/nutrients_en#:~:text=As%20part%20of%20the%20Farm%20to%20Fork%20strategy,reduction%20in%20fertiliser%20use%20of%20at%20least%2020%25) (2023).

<sup>3</sup> Controlled Traffic Farming: Methods applied to Grassland Silage Management; AHDB Dairy Grasslands, Forage and Soils Research Partnership, Hargreaves, Peets, Chamen, Misiewicz, White, Godwin, 2016.

<sup>4</sup> Feedstuff dirtying of grass-silage – Development of a solution to reduce forage contamination with the assistance of guidance lines on permanent grassland; Alke Hedemann, Christian Albrecht University in Kiel, 03.06.2022.

<sup>5</sup> Potential outcome based on grassland management with the utilization of AutoPath by Stefan Vogelsang on 20 ha. Estimated emissions savings is based on fuel consumption savings for the machine and the savings based on yield increases for the grassland. Results will vary.

<sup>6</sup> This figure is based on planting corn on 10-inch strip on 30-inch centers.

<sup>7</sup> Potential outcome based on corn silage systems field trials with test customer Stefan Vogelsang comparing Deere corn silage system and traditional corn silage system on 20 hectares. Deere corn silage system involves mulching, cover crops, strip-till and slurry injection application at once, band spraying, and mechanical weed control. Results will vary.

<sup>8</sup> Nitrogen use efficiency is defined as nitrogen applied divided by yield of crop. NUE can be calculated as Nitrogen applied/Crop Yield (US) or Nitrogen removed with the Crop/Nitrogen Applied (EU).

<sup>9</sup> Fertilizer formula used was [(1-[(1-0.9)/(1-0.56)])].

<sup>10</sup> Assumption that 100% CO<sub>2</sub> emissions in the traditional system, 28% can be reduced through the Deere corn silage system due to less inorganic fertilizer needing to be used. This assumption considers that in corn production fertilizer can represent an estimated 75% of greenhouse gas emissions. This estimation is based on three-year average results for a model farm covering 6,500 acres producing corn and soybeans in the United States. Results will vary.

# OPERATIONS CENTER OPTIMIZATION

The key to agricultural sustainability lies in improving soil health, as soil is the farmer's most valuable asset.

Sustainable practices, like maintaining cover crops, reducing or eliminating tillage, and reducing synthetic fertilizer, can lead to healthier soil and more resilient yields over time. They can also unlock reductions in carbon emissions and soil erosion while providing improvements to water quality, nitrogen, and crop-protection efficiency. These practices can take three to five years to show benefits and often demand more labor.

To make changes to incorporate sustainable practices it's critical for precision ag technology to do more with less, and for the market to support farmers financially.

To help customers access programs that may unlock value for sustainability, we launched the Sustainability Section in the Operations Center. This is a feature that allows U.S. ag customers to easily understand, compare, and sign up for third-party programs.

For the 2023 growing season, the Operations Center featured two programs: Cargill® RegenConnect and U.S. Cotton Trust Protocol (Trust Protocol). Cargill's

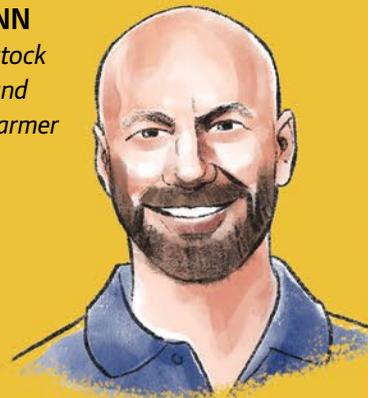
program focuses on U.S. growers of corn, cotton, wheat, soy, sunflowers, flax, and/or sorghum. The one-year program allows customers to get paid for acres with new or expanded sustainable practices such as cover crops and reduced tillage. The Trust Protocol will allow cotton growers to access markets for sustainably grown cotton and leverage field practice data they collected in Operations Center to minimize duplicative data entry.

Customers can also select the "notify me of new programs" option to receive alerts. Future plans for sustainability tools available through the Operations Center include:

- Adding more programs for growers to choose from
- Enabling field-level carbon emissions measurement and soil-health quantification services

**"I joined the program to learn what my field emissions were, capitalize on practices I am currently using, as well as consider adding other practices."**

**JUSTIN ULLMANN**  
Low Carbon Feedstock Pilot Participant and Northwest Iowa Farmer



The Sustainability Section in Operation Center allows U.S. ag customers to easily understand, compare, and sign up for programs that provide an incentive for the use of sustainable practices.



We continue to seek out new scalable opportunities that provide economic benefits to our customers who have adopted, or plan to adopt, more sustainable practices. This year, we announced our participation in Leading Harvest, piloted a Low Carbon Feedstock project, and trialed a carbon market program.

What separates Leading Harvest, a nonprofit organization, is that it provides sustainability certification at scale. The mission of Leading Harvest aligns with our Leap Ambitions, with the scale and scope of the project serving as a potential catalyst to unlock additional value for our customers.

More than 1.5 million acres across 30 U.S. states are enrolled in the program with a similar amount documented in Australia. John Deere, along with Nestlé, Cargill, and Nutrien Ag Solutions™, is a member of the founding supporter council. We see our engagement and support as a means to help shape industry certification and traceability across the food and agriculture value chain to ultimately unlock opportunities for growers.

The Low Carbon Feedstock Pilot investigate the potential for direct payment to farmers for lower carbon intensity corn used for ethanol. The pilot covers nearly 3,800 acres that utilized a conservation practice. These conservation practices include the integration of cover crops or reduced tillage practices like strip tillage or no till. Due to these practices, pilot participants have so far achieved a 14% reduction in carbon intensity compared to the national average.<sup>1</sup> Based on research and data-driven insights like this, we are advocating on behalf of farmers with the USDA, clean fuel markets, and elsewhere about the feasibility and benefits of paying farmers for producing grain with low carbon emissions.

This year we also completed a pilot carbon market program for utilizing more sustainable agriculture practices. Through this program, Nestlé purchased the carbon that was generated by eight Deere customers in five states through the use of their conservation practices on their land. The Operations Center played an important role in this pilot by providing the farm records to support the soil carbon sequestration outcome.

**ROADBUILDING CUSTOMERS GAIN OPERATIONS CENTER BENEFITS**

Expanding the Operations Center to The Wirtgen Group's equipment unlocks valuable insights for our roadbuilding customers.

The Operations Center allows customers to manage site operations when it matters most, at any time, and from anywhere. Connected fleets can minimize jobsite disruption through access to maintenance plans, digital alerts, and maintenance records for each machine. The Operations Center creates jobsites and assigns machines automatically based on their GPS positions. Site managers

and dispatchers can clearly monitor progress on several jobsites in parallel and are always informed on the status of all projects.

Our previous users of WITOS Fleetview and Wirtgen Group Performance Tracker (WPT) Milling can now monitor fleets and performance data all in the Operations Center. Certain parameters for the individual jobsite are summarized, including total machine utilization, total fuel consumption rates, average fuel emissions rates, and several additional performance parameters for cold milling machines equipped with WPT Milling.

**MACHINE ANALYZER UPDATES FOR ALL**

In 2023, Machine Analyzer was updated to capture not just the fuel rate but also the carbon emissions from fuel consumption. Machine Analyzer is a feature available in Operations Center for agriculture, construction, and forestry machinery where users can compare performance, fuel usage, and utilization for machines across their fleet. This updated feature allows customers to easily measure and compare their machines' emissions over time, with the ability to share that data with stakeholders that are requesting emissions information.

<sup>1</sup>Based on Argonne National Laboratory's GREET FD-CIC model for an average corn field in the United States with conventional tillage, no cover crops, and fall nitrogen fertilizer application.



**“Roadbuilding customers can gain key insights on jobsites to increase efficiency and productivity by using the data unlocked from Operations Center.”**

**STEPHAN WELLER**

*Head of Channel & Aftersales/Customer Service Support, Digitalization & Production Systems, Wirtgen Group branch of John Deere GmbH & Co. KG*

## SMARTER SPRAYING TECH EXPANSION COVERS MORE GROUND (AND CROPS)

Protecting crops after emergence is one of the most critical steps growers take on their way to optimizing productivity of every acre. Whether eliminating pests or nutrient-stealing weeds, the inputs of herbicides and pesticides can be an expensive necessity nearly every agriculture production system faces.

That's why our continued expansion of smarter spraying capabilities are designed to not only increase our growers' overall efficiency and profitability, but also link back to key Leap Ambition goals around engaged acres, sustainably engaged acres, connected machines, crop-protection efficiency, and customer CO<sub>2</sub>e emission reductions.

Headlining our expansion this year were both established and emerging technologies in Deere's "sense and act" portfolio.

The foundational innovation in this space is See & Spray™ Ultimate, our computer-vision and machine-learning product that utilizes 36 cameras across a carbon fiber sprayer boom to determine what is a weed and what isn't.<sup>1</sup> See & Spray Ultimate makes that determination within 200 milliseconds<sup>2</sup> through the use of vision-processing units that scan more than 2,100 square feet per second.<sup>1</sup>

By only spraying the weeds and not solely relying on broadcast methods, growers can reduce non-residual herbicide inputs by up to two-thirds with See and Spray Ultimate.<sup>3</sup>

As we work to get these pivotal technologies in the hands of customers faster, part of our final product development phase has involved our customers putting See & Spray to use out in the field. Our See & Spray Customer Success Team provided our customers and dealers with data and insights around their acreage and herbicide use savings with recommendations to further improve utilization and drive even more savings.

And we're working to ensure that not just new machines have access to this technology. Machines sold without the factory-installed version of See & Spray can still access the technology through See & Spray™ Premium, our new Precision Upgrade kit. Once a See & Spray Premium Precision Upgrade kit is installed on a sprayer, farmers can cover more acres than before on a single tank — while using targeted spray — making fewer stops to fill and using less chemical and water.

See & Spray Premium's BoomTrac™ Pro 2.0 technology provides camera stability to capture images of the field. Those images are used by machine-learning models to differentiate weed from crop, and once a weed is detected, ExactApply™ nozzles spray it. Currently, See & Spray Premium is offered for model year 2018 and newer John Deere sprayers in the U.S., and it requires the machine to have a factory-installed ExactApply system or ExactApply Precision Upgrade kit with 15- or 20-inch spacing and a 120-foot steel boom.<sup>4</sup> See & Spray Premium allows us to expand model and model-year compatibility while also introducing the technology to growers around the world.

See & Spray Premium aligns with our broader strategy of helping our customers benefit from today's newest technology on older machines and model types. Similar to what we've done with ExactEmerge™ Precision Upgrade, we're looking to deliver better performance on our equipment, allowing more customers to unlock the economic and sustainable value of this technology.

Click here to learn more about See & Spray technologies:



[See & Spray Select](#)  
[See & Spray Ultimate](#)  
[See & Spray Premium](#)



### See & Spray Technology Performance

IN 2023, SEE & SPRAY  
TECHNOLOGY WAS USED ON OVER

**1M ACRES**

(LARGER THAN THE STATE OF  
RHODE ISLAND), WHICH  
HELPED FARMERS ACHIEVE  
NEARLY 2/3 REDUCTION IN  
SOLUTION, SAVING OVER

**8M GALLONS<sup>5</sup>**





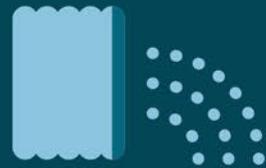
**Smart Apply® Intelligent Spray Control System™<sup>6</sup>**



**UP TO 50% LESS WATER AND CROP PROTECTION CHEMICALS**



**UP TO 87% REDUCTION IN AIRBORNE DRIFT**



**UP TO 93% LESS CHEMICAL RUNOFF**

**MORE VALUE FOR HIGH-VALUE CROPS**

Our smart-spraying capabilities now extend to high-value crops (HVCs) as a result of the company’s acquisition of Smart Apply Inc., a precision spraying equipment company that developed the Smart Apply® Intelligent Spray Control System™.

HVCs generate significantly higher value per acre than grains or oilseeds. The three primary HVC categories include bedded crops (vegetables and melons), vineyards (grapes and other berries), and orchard crops (almonds, citrus, olives, apples, etc.).

Smart Apply’s intelligent spray system is an upgrade kit that improves the precision and performance of any air-blast sprayer used in orchard, vineyard, and tree nursery spraying applications.

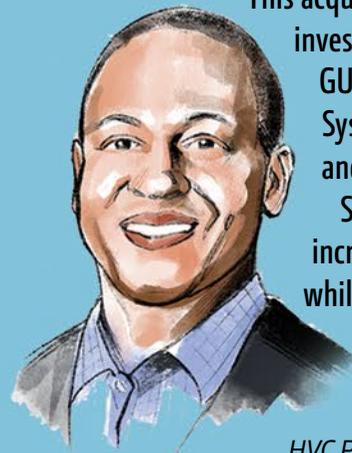
The spray system can also improve productivity since less time is being used to refill tanks. Smart Apply’s precision spraying can help achieve up to 93% less chemical runoff and up to an 87% reduction in airborne drift.<sup>6</sup> Smart Apply can also help reduce the total amount used in blast spraying operations by up to 50%, including water and crop protection chemicals.<sup>6</sup> Smart Apply can deliver all of these benefits while maintaining yields.

“Smart Apply is a continuation of our commitment to high-value crop customers and dealers, further expanding a portfolio of solutions to help growers address their biggest challenges around labor, input costs, and regulatory requirements, and achieve environmental goals,” Bailey said.

The system documents date and time of spraying, overall spray volumes, chemical savings, tree counts, canopy volume, and acres/hectares sprayed. Precision data leads to a deeper understanding of an orchard’s or vineyard’s productivity, profitability, health, and sustainability. Growers can choose to share their Smart Apply data with John Deere Operations Center™ farm management software, unlocking another level of insights and expert support.

Smart Apply’s reduction of chemical and water use can ultimately reduce the impact of weed and pest management on biodiversity while helping meet a Leap Ambition goal to expand sustainably engaged acres and improve crop protection efficiency for our customers.

**“This acquisition complements our 2022 investment in GUSS™ Automation. GUSS (Global Unmanned Spray System) is a pioneer in orchard and vineyard sprayers that uses Select Spray™ technology to increase precision and efficiency while materially lowering costs.”**



**MIKE BAILEY**

Director of the Small Tractor & HVC Production System at John Deere

<sup>1</sup>Deere, *Deere launches See & Spray™ Ultimate: in-season targeted spray technology combined with dual product solution system for corn, soybeans, and cotton*, <https://www.deere.com/en/news/all-news/seespray-ultimate/> (2023).

<sup>2</sup>200 milliseconds is based on the total time for the system to spray the weed, including detection to nozzle command and for the spray to leave the nozzle tip, hitting the weed.

<sup>3</sup>See & Spray Ultimate can reduce non-residual herbicide use by more than two-thirds. Results based on internal John Deere strip trials in corn, soybeans, and cotton in Iowa, Mississippi, Texas, and Illinois, in typical growing conditions, with varying weed size, crop canopy, and field conditions, using targeted spray of non-residual herbicide only, and using current software/algorithm at time of trials. Results vary based on crop; for details see <https://www.deere.com/en/sprayers/see-spray-ultimate/>. Weed-control results based on dual-tank operation, adding an additional herbicide that could not be added to an existing herbicide mix in a single tank. Individual results will vary.

<sup>4</sup>Deere, *John Deere offers new See & Spray™ Premium performance upgrade kit for sprayers*, <https://www.deere.com/en/news/all-news/deere-introduces-new-see-and-spray-kit/> (2023).

<sup>5</sup>Compared to a traditional broadcast sprayer at a target rate of 12 gal per acre.

<sup>6</sup>Deere, *John Deere acquires Smart Apply*, <https://www.deere.com/en/news/all-news/john-deere-acquires-smart-app/>(2023).

# *Sustainable Product Development*





## OUR PRIORITIES

**DEERE PRODUCTS WILL SET THE STANDARD FOR SUSTAINABILITY BY 2030 THROUGH:**

**Integrating circularity principles into product development lifecycle:**

- Incorporating 95% recyclable content into our products
- Ensuring 65% of content going into our products is sustainable
- Growing remanufacturing revenue by 50%

**Reducing upstream and downstream (Scope 3) CO<sub>2</sub>e emissions 30% by:**

- Developing a road map of low/no carbon alternative power solutions
- Investing in engine efficiency, hybridization, electrification, and renewable fuels:
  - Delivering battery-electric turf and compact utility tractor options.
  - Delivering electric and hybrid-electric construction and roadbuilding solutions.

## WHAT WE HAVE DONE

- Launched 4 electric and 2 hybrid-electric turf and compact utility products
- Revealed 2 X-Tier Loaders with E-Drive technology
- Launched new and updated excavator models
- Displayed a concept ethanol-burning 9-liter engine at 2023 AGRITECHNICA
- Participated in pilot programs to grow feedstock sources for renewable diesel production

LEAP AMBITION	TARGET YEAR	PROGRESS
30% reduction in upstream and downstream CO <sub>2</sub> e emissions (Scope 3, Category 1 and 11) <sup>1</sup>	2030	4% reduction
50% growth in remanufacturing revenue <sup>1</sup>	2030	3% growth
65% product content is sustainable material	2030	40% sustainable product content
95% recyclable product content	2030	90% recyclable product content

<sup>1</sup>Progress is based on 2023 results compared to the 2021 baseline.



[Click here to see our full sustainability metrics.](#)

## DIFFERENTIATED POWER SOLUTIONS

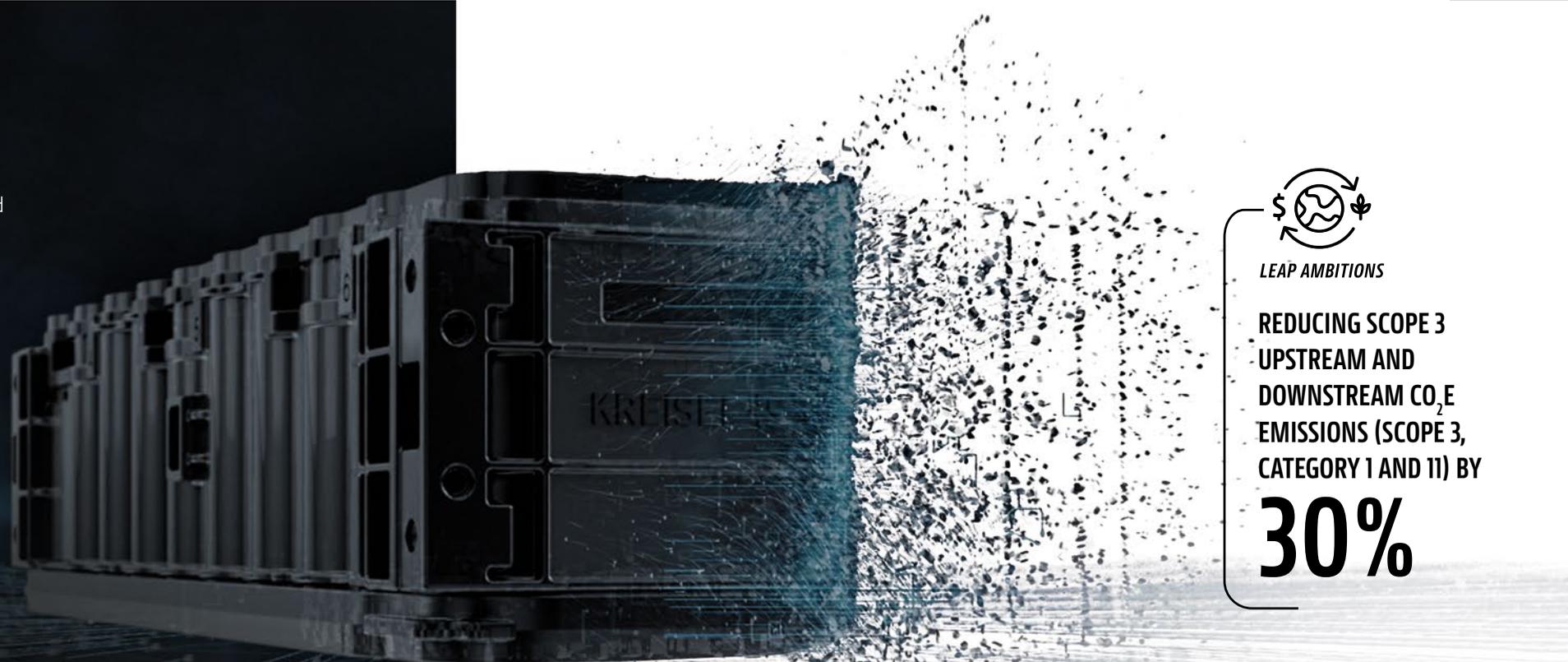
Our customers' success ultimately relies on their — and our — understanding of an often complex interconnected environment or ecosystem. In our effort to deliver products that align with our 2030 Leap Ambition goal of reducing Scope 3 upstream and downstream CO<sub>2</sub>e emissions (Scope 3, Category 1 and 11) by 30%, we remain focused on solutions that will continue to meet the power needs required in those unique ecosystems. We know that a singular technology will not be the solution across our entire portfolio of products, so ensuring that each product line has the optimal solution is our goal.

Our internal research and development efforts around alternative propulsion are focused both on advancing our best-in-class engine technology to deliver more sustainable performance, while also now investing in battery technology through our investment in Kreisel Electric. Both of these will be critical on our journey to delivering on our Leap Ambitions.

For engines, our John Deere Power Systems (JDPS) teams continue to target the most fundamental part of engine development — efficiency — to drive a key part of CO<sub>2</sub>e reduction in our products in the near term. Innovations in combustion, friction, and heat transfer within engine operation can improve our best-in-class fuel efficiency and deliver emissions reductions.

When it comes to batteries, we are leveraging our expertise in propulsion innovation and production from decades of leadership in the engine business to build an efficient global battery business.

We are also pursuing stationary and mobile-charging solutions for our dealers and customers. We are currently working to bring the level 3 battery-integrated charger from Kreisel to customers in the U.S.



LEAP AMBITIONS

REDUCING SCOPE 3  
UPSTREAM AND  
DOWNSTREAM CO<sub>2</sub>E  
EMISSIONS (SCOPE 3,  
CATEGORY 1 AND 11) BY

**30%**



“Together with Kreisel, John Deere is expanding our electrification portfolio to include more scalable solutions to meet a wider range of our customers’ application needs. This investment is a great step forward as we work toward our goal of demonstrating viable low- and no-carbon power solutions by 2026.”

**JENNIFER PRESTON**

*Vice President of John Deere Electric Powertrain and CEO of Kreisel*

**HYBRID AND BATTERY ELECTRIC IN TURF CARE**

The Small Ag & Turf Division has committed to delivering a fully-electric option in each Turf and Compact Utility tractor product family. New turf care machines launched this year are tailored to our golf course customers, including electric Gator™ utility vehicles, E-Cut Electric walk-behind greens mowers, and hybrid fairway mowers. Hybrid and battery-electric technology delivers numerous benefits for this segment of our customer base. Compared to non-hybrid mowers, 7700A E-Cut Fairway Mower has 90% reduction of hydraulic leak points, reduced fuel consumption and less engine noise.<sup>1</sup> Additionally, the E-Cut Electric walk-behind greens mowers can cover 50,000 square feet on a single charge, all while using no fuel or oil and running virtually silent.<sup>2</sup>

What makes these products attractive to our customers is their precision and ease of use, efficiency gains associated with hybridization, fuel savings, noise reduction, and charging ease.

This equipment also delivers access to OnLink golf management software, a solution that integrates with the John Deere Operations Center™, helping customers improve communication between managers and employees, enhance their facility’s organization, and harness data to enable better decision-making. OnLink also provides integrated labor and fleet management tools enhanced with machine connectivity.

Away from the golf course, our residential customers are benefiting from electrification as well. This year customers received first deliveries of Deere’s fully-electric lithium-ion-powered Z370R Electric Zero Turn Mower, which delivers a quieter experience, with no exhaust and all the performance.

Further, we’ve expanded our battery-electric residential lineup through our new partnership with EGO™. As part of this new agreement, EGO-branded battery products will be available through our dealer network, bringing additional flexibility and compatibility to our customers. EGO batteries are portable and can be used across 70 compatible products, allowing customers to complete a multitude of projects all on the same battery system.<sup>3</sup>



**185 AND 225 E-CUT™ ELECTRIC WALK BEHIND GREENS MOWERS:**

- Estimated product lifetime emissions savings<sup>4</sup> of up to 4 metric tons CO<sub>2</sub>e

**E-CUT™ HYBRID FAIRWAY MOWERS:**

- 7700A has an estimated product lifetime emissions savings<sup>4</sup> of up to 11 metric tons CO<sub>2</sub>e
- 6700A has an estimated product lifetime emissions savings<sup>4</sup> of up to 10 metric tons CO<sub>2</sub>e



**MOVING THE EARTH, EFFICIENTLY**

In our Construction & Forestry Division, we revealed multiple new excavators through updates to current generation and future generation models. These updates showcase our ability to leverage enterprise technologies to deliver solutions to our customers that will help them work smarter, safer, and more sustainably.

One example is our new 75 P-Tier and 85 P-Tier Excavators that were launched in 2023. Compared to the previous G-Series models, the P-Tier models have a redesigned larger cab, new machine options, and performance enhancements that improve fuel efficiency by 10%.<sup>5</sup> This allows customers to do more work while using less fuel.

Additional machines released in 2023 include the 210 P-Tier, 250 P-Tier, and 300 P-Tier. These updated current generation models use electronic on-demand cooling fans that reduce fuel consumption by 7% compared to their G-Series predecessors.<sup>6</sup> In addition, these models include durability enhancements to maximize customer uptime and provide improved user experience with our OEM exclusive bucket camera system.



**“Our future-generation excavator models not only leverage what we’ve learned from our customers, but also utilize John Deere’s decades of global excavator experience to bring the most innovative and game-changing machines to market.”**

**AARON KLAUER**  
Global Product Manager,  
Mid-and-Large Size  
Excavators, John Deere



**EXCAVATORS TO LOADERS AND ROLLERS**

But we didn't just stop at excavators. Our 744 X-Tier and 824 X-Tier loaders with E-Drive Technology are expected to deliver fuel savings, emission reductions and productivity gains for our customers when they hit the market in 2024.

An electric-variable transmission (EVT), similar to what is already available on MY23 8 Series Tractors with 410 horsepower, is being introduced for the first time on these loader models. Two electric motors and an inverter housed on the EVT allow the system to manage torque and power more efficiently to the ground.

By delivering near-instant response to the operator, we are bringing a simplified operation with a single pedal, which helps eliminate complexity and fatigue while providing the next evolution in controllability. The 744 X-Tier and 824 X-Tier loaders with E-Drive technology can deliver more power and better torque performance, with less cost, fuel, emissions, and stress on operators.

**744 X-TIER LOADER WITH E-DRIVE TECHNOLOGY:**

• Estimated product lifetime emissions savings<sup>7</sup> of up to **132** metric tons CO<sub>2</sub>e

**824 X-TIER LOADER WITH E-DRIVE TECHNOLOGY:**

• Estimated product lifetime emissions savings<sup>7</sup> of up to **138** metric tons CO<sub>2</sub>e



Wirtgen's Hamm electric battery-driven tandem rollers, introduced in 2022, are a prime example of customers seeing benefits in our new models.

**“The machine works extremely quietly yet still has a high compaction force – I didn’t notice any difference. It is also good that the machine is operated in exactly the same way as the diesel machine, meaning that I could get started as usual, right from the outset. I also liked the driving and steering behavior.” said Vincent van Tiul, roller driver, company Gebr. Van Kessel, Netherlands, HD 10e VV**

Based on customer and operator needs, we aim to deliver 20+ electric and hybrid-electric product models by 2026. The 744 X-Tier and 824 X-Tier loaders with E-Drive technology and the HD 10e VV Tandem Rollers are examples of product models that will deliver on this Leap Ambition, but most importantly, will unlock opportunities for customers to do more with less.

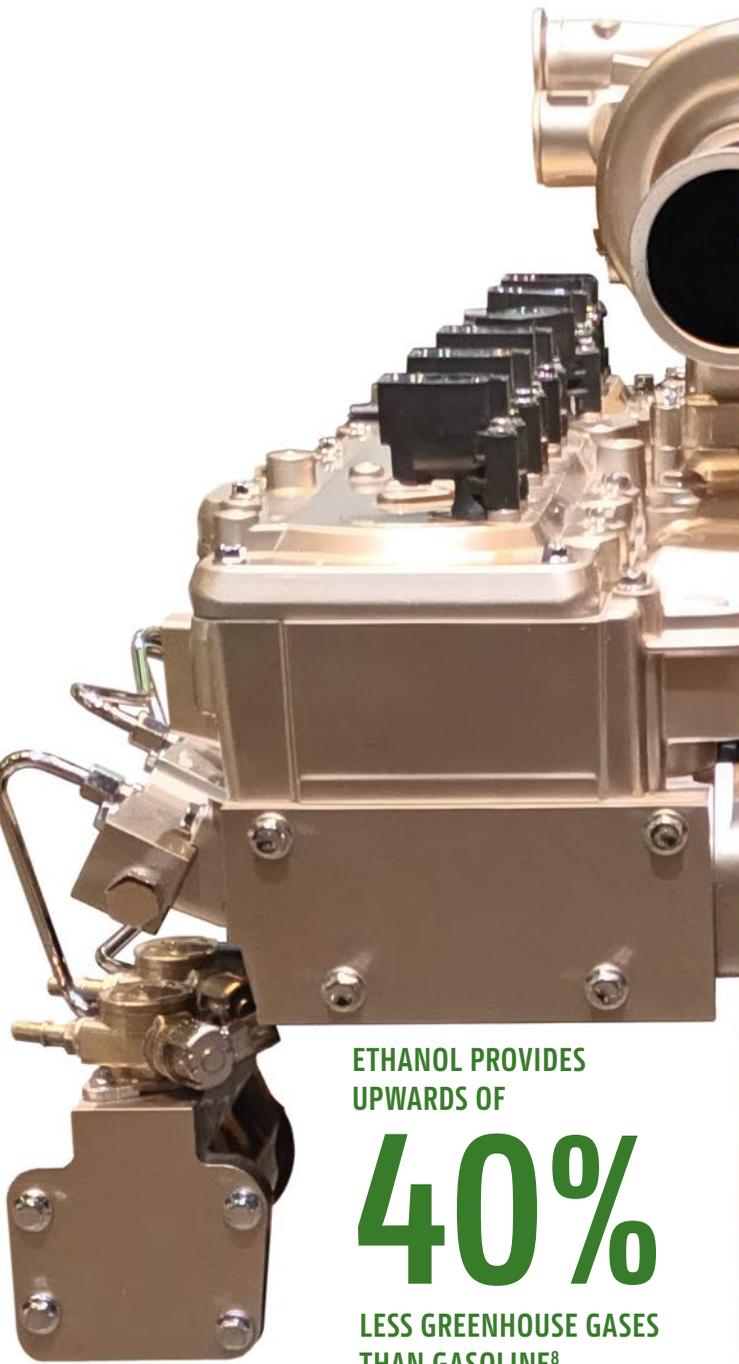


**CONTINUED FOCUS ON RENEWABLE FUELS**

Beyond the design of the propulsion technology itself, another critical element is the power source or fuel it utilizes. To deliver sustainable solutions to our customers, we must not only consider the environmental potential of a solution, but the conditions and demands of the production system in which our customers operate.

For this reason, we continue to invest in and advocate for the development and expansion of renewable fuel options for industries like ours, and we believe biofuels (including ethanol, renewable diesel, and biodiesel) are promising solutions for our larger products. With current technology, a full battery-electric version of these products would not deliver the outcomes desired by our customers. Take the 9R Tractor at 620 horsepower, for example. The 9R's fuel capacity is 400 gallons at an additional weight of nearly 2,800 pounds. Changing that to full electrification would mean almost 60 batteries at a weight of nearly 67,000 pounds — more than 20,000 pounds heavier than the tractor itself.<sup>8</sup> The 9R currently sells for about \$430,000.<sup>8</sup> The price of almost 60 batteries to power the tractor would exceed nearly \$1.3 million today.<sup>8</sup> Beyond the additional cost and weight to the equipment, access to charging infrastructure and length of machine operation continue to be significant challenges with electrification, given current technology.

For these reasons, through partnerships with universities, companies in adjacent industries, and governmental agencies, we are investigating and developing renewable fuel solutions that will work for our customers and their operating conditions and demands.



ETHANOL PROVIDES  
UPWARDS OF  
**40%**  
LESS GREENHOUSE GASES  
THAN GASOLINE<sup>8</sup>



To this end, we are working toward developing an ethanol burning 9-liter engine. Ethanol provides upwards of 40% less CO<sub>2</sub>e emissions than gasoline, and the production and distribution network for ethanol is already mature in many geographies around the world.<sup>8</sup> We displayed a concept 9-liter engine that is compatible with ethanol at the 2023 AGRITECHNICA show. The concept engine illustrates the company's ongoing commitment to developing a diversified portfolio of solutions that can meet power needs across equipment sizes and applications, while delivering lower greenhouse gas emissions. We are most excited about what a biofuels answer for low carbon transportation fuels means for the business of our customers, particularly in the United States and Brazil, that grow the primary feedstocks contributing to ethanol production.

While we continue development work in ethanol technology, our available engines can run on renewable diesel, a 50–80% less carbon intensive alternative to petroleum-based fuels.<sup>10</sup>

Due to the limited capacity and infrastructure for renewable diesel production, we continue to participate in pilot programs tied to the growing of winter oilseed cover crops that can serve as an incremental source of feedstocks for renewable diesel production. This includes partnerships that employ camelina (also being explored for jet fuel) across Minnesota, Iowa, and Texas.



The potential for winter oilseed cover crops to serve as a new source of feedstock for biofuels production has numerous benefits. Winter oilseed cover crop integration helps promote soil health through the establishment of strong root structures in the ground. This also has the potential to convert a cost into a second source of revenue for the farmer, all while expanding the available feedstocks for biofuel production.

While growing and harvesting camelina, we gained insight on optimal settings and configurations for our equipment to allow for better planting, spraying, and harvesting of the crop. We also learned about the impact various crop rotations can have on camelina's yield as well as the main crop yield and how the oilseed itself can shatter easily once mature, making harvest timing critical.

We will continue to explore the opportunities for oil seeds to increase the production of renewable diesel and provide new revenue streams for customers.



To read more about Deere's journey to partner and investigate hydrogen and biomethane as fuels sources, [click here to see our 2022 Sustainability Report.](#)

<sup>1</sup> Deere, 7700A E-Cut™ Hybrid Fairway Mower, <https://www.deere.com/en/mowers/fairway-mowers/7700a-e-cut-hybrid-fairway-mower/> (2023).

<sup>2</sup> Deere, 225 E-Cut™ Electric Walk Greens Mower, <https://www.deere.com/en/mowers/walk-greens-mowers/225-e-cut-mower/> (2023).

<sup>3</sup> Deere, John Deere announces new partnership with EGO, <https://www.deere.com/en/news/all-news/john-deere-announces-new-partnership-with-ego/> (2023).

<sup>4</sup> Estimated emission savings are calculated based on a comparison of the lifetime emissions of the diesel or gasoline alternative and the lifetime emissions of the battery-electric version operating on electric grid that has the U.S. average emission factor. Results will vary.

<sup>5</sup> Estimated fuel consumption savings is based on internal studies conducted and calculated based on a comparison of the fuel consumption of the G-Series models and the P-Tier models. Results will vary.

<sup>6</sup> Estimated fuel efficiency savings is based on internal studies conducted and calculated based on a comparison of productivity and fuel consumption of the G-Series models and the P-Tier models. Results will vary.

<sup>7</sup> Estimated emission savings are calculated based on a comparison of the lifetime emissions of the fuel efficiency of the diesel P-tier model and the fuel efficiency of the X-tier model with E-Drive technology. Results will vary.

<sup>8</sup> Analysis estimations based on equipment specifications and battery specifications. Results will vary.

<sup>9</sup> Energy.Gov, Ethanol vs. Petroleum-Based Fuel Carbon Emissions, <https://www.energy.gov/eere/bioenergy/articles/ethanol-vs-petroleum-based-fuel-carbon-emissions> (2023).

<sup>10</sup> CA.gov, Renewable diesel is increasingly used to meet California's Low Carbon Fuel Standard, <https://www.eia.gov/todayinenergy/detail.php?id=37472> (2023).

## EXTENDING THE PRODUCT LIFECYCLE THROUGH RELIFE

Our focus on product circularity revolves around implementing economic and sustainable solutions to extend a machine's life. It's this balance that drives our Leap Ambition goals of achieving 95% recyclable product content, ensuring 65% product content is sustainable material, and growing our John Deere Reman business by 50%.

Our remanufacturing business focuses on core parts and components that are designed to add value to the life of the product while reducing environmental impacts. These core components include complete engines, engine components and accessories (starters, alternators, and AC compressors), electronics (display monitors, control units, and moisture sensors), drivetrains, and hydraulic components.

Ready-to-go remanufactured components — backed by John Deere quality — give our customers the flexibility of replacing a failed part on an older machine with minimal downtime and the ability to get the most out of the equipment by maximizing its usefulness. One example of how our dealer channel is utilizing these remanufactured parts is through our certified Powertrain ReLife Plus program.

The ReLife program begins with a machine that is approaching an hour level where the major powertrain components are beginning to wear out. Based on detailed inspection by our certified dealer and collaboration with the customer on desired changes, the ReLife often includes replacement of powertrain components and repair or replacement of many other auxiliary components, including some new components. The program is supported by Deere and executed by

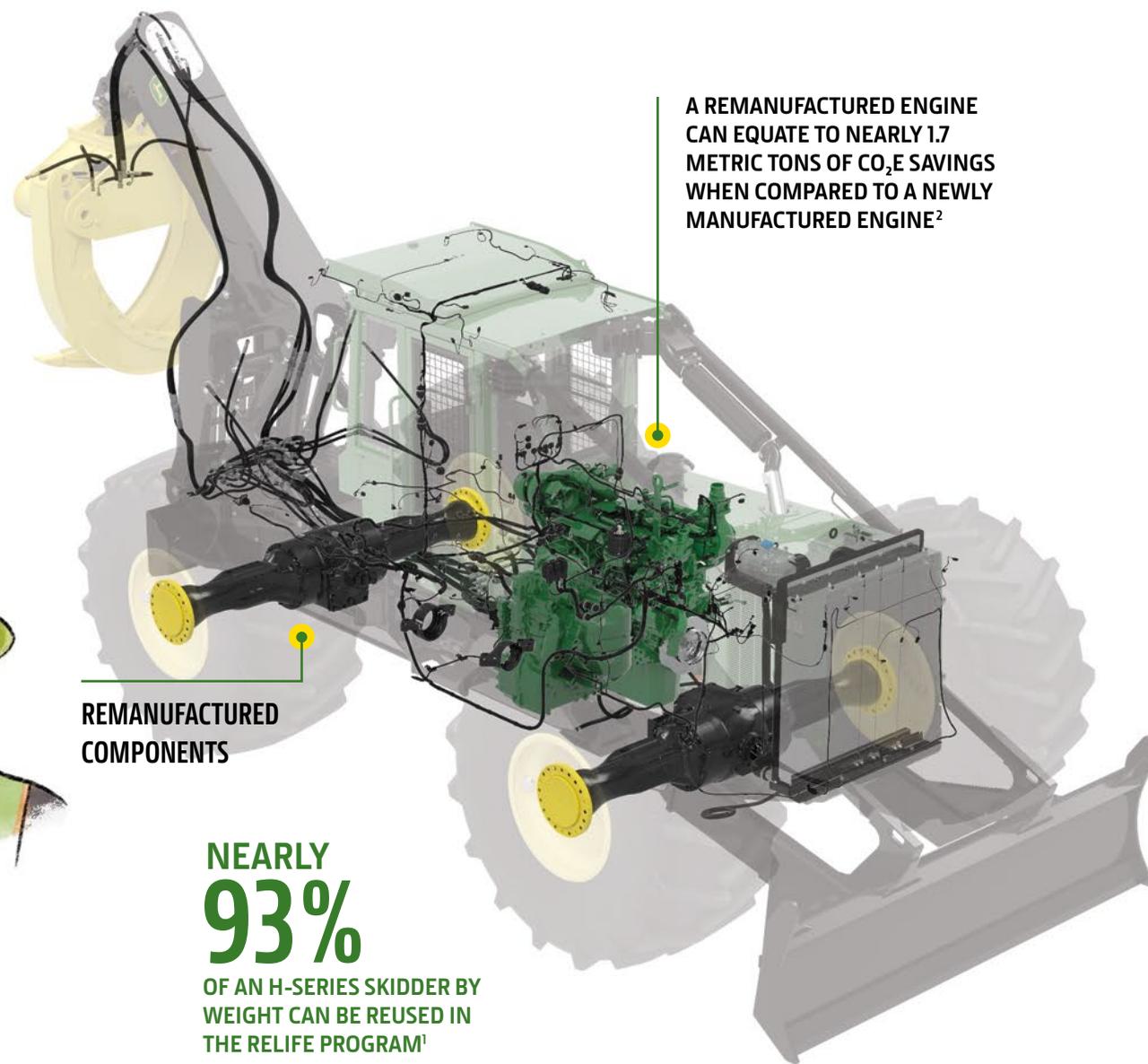
our dealers, providing a unique cost-savings service to our customers, with an extended warranty option available. ReLife provides a flexible solution that can match customers' fleet management needs and desire for optimized cost of ownership

This ReLife program strengthens our environmental commitments while allowing customers to extend the usage of their machines with a lower total cost of ownership. For example, 93% of a 19-ton H-Series Skidder can be reused in the ReLife program.<sup>1</sup>

ReLife enables additional connection points from dealer to customer by providing another option to help customers manage their owning and operating costs.

**“The ReLife machines have performed up to our expectations or even outperformed our expectations. We’ve had very little to no downtime with them.”**

**ANDREW MILLER**  
*President of A.M. Logging  
in Millheim, Pennsylvania*



**A REMANUFACTURED ENGINE CAN EQUATE TO NEARLY 1.7 METRIC TONS OF CO<sub>2</sub>E SAVINGS WHEN COMPARED TO A NEWLY MANUFACTURED ENGINE<sup>2</sup>**

**REMANUFACTURED COMPONENTS**

**NEARLY 93%**  
**OF AN H-SERIES SKIDDER BY WEIGHT CAN BE REUSED IN THE RELIFE PROGRAM<sup>1</sup>**

“The ReLife machines help owners manage their daily operating costs because it’s something they’re familiar with,” said Ron Horton, product support manager at Foster F. Wineland Inc. in Martinsburg, Pennsylvania. “When ReLifing their machine, they can understand that, based on their past experiences, they know what it’s going to cost them, and they can expect the same after ReLife as well.”



**RON HORTON**

*Product Support Manager at Foster F. Wineland Inc.  
John Deere Dealer in Pennsylvania*



**FROM 2021 TO 2022, THE RELIFE BUSINESS NEARLY DOUBLED ACROSS OUR DEALERSHIPS, AND GREW ANOTHER 21% IN 2023.**

The use of John Deere Reman components in this process also drives emissions reductions. Not having to make a new engine or axle from scratch, for example, means natural resources are preserved, melting furnaces aren’t fired up, and carbon footprints can be smaller.

As our product road map shifts and we continue to advance our innovations, we understand that product circularity doesn’t end with hard iron. Our ambitions around electrifying more machines means we also are applying many of these similar approaches to the batteries that power them. That’s why we continue to explore repairing and refurbishing batteries as well as what will be needed to recycle them or provide them a second life.





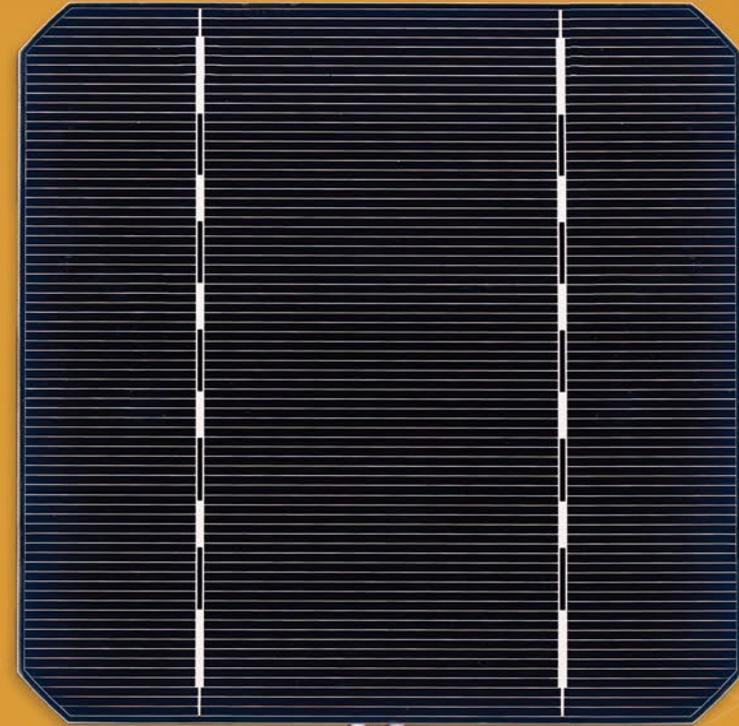
**LEAP AMBITIONS**

**95%**  
RECYCLABLE  
PRODUCT CONTENT

**ENSURING 65%**  
PRODUCT CONTENT IS  
SUSTAINABLE MATERIAL,  
AND GROWING OUR  
REMANUFACTURING  
REVENUE BY **50%**

<sup>1</sup>Results will vary.  
<sup>2</sup>Estimated emission savings are calculated based on a 6.8L engine with an assumed core reuse rate of 80% and represents the avoided material extraction emissions for the reused components. Results may vary.

# *Operational Sustainability*





## OUR PRIORITIES

### MAKING DEERE'S OPERATIONS MORE SUSTAINABLE BY 2030:

- Reducing upstream and downstream (Scope 3) CO<sub>2</sub>e emissions by 30%
- Reducing Scope 1 and 2 CO<sub>2</sub>e emissions by 50%
- Reducing waste intensity by 15%
- Reducing freshwater consumption intensity by 10% at water-stressed manufacturing locations

## WHAT WE HAVE DONE

- Implemented projects to reduce Scope 1 and 2 GHG emissions by nearly 1,200 metric tons of CO<sub>2</sub>e annually
- 65% of our key suppliers by spend are measuring and publicly reporting certain categories of their emissions
- Reused over 2 million pounds of wood
- Reduced nearly 30,000 cubic meters in water consumption at Dewas and Pune Works compared to 2021

LEAP AMBITION	TARGET YEAR	PROGRESS <sup>1</sup>
30% Reduction in upstream and downstream CO <sub>2</sub> e emissions (Scope 3, Category 1 and 11)	2030	4% reduction
50% Reduction in operational CO <sub>2</sub> e emissions (Scope 1 and 2)	2030	15% reduction
15% Reduction in waste intensity <sup>2</sup>	2030	11% increase
10% Reduction in water intensity at water-stressed manufacturing locations <sup>2</sup>	2030	11% increase

<sup>1</sup>Progress is based on 2023 results compared to the 2021 baseline.

<sup>2</sup>These metrics increased in 2023 compared to their 2021 baseline.



[Click here to see our full sustainability metrics.](#)

# OPERATIONAL GHG EMISSIONS—SCOPE 1 & 2

We have validated Science Based Targets to reduce our Scope 1 and 2 greenhouse gas (GHG) emissions by an additional 50% by 2030, with fiscal year 2021 serving as the baseline. In 2023, we are making progress, with a 15% reduction in Scope 1 and 2 GHG emissions from our 2021 baseline. To continue to deliver Scope 1 and 2 GHG emission reductions, we'll aim to implement additional efficiency gains in operations and facilities processes, and use even more renewable electricity and fuels.

We're also engaging our global teams in this endeavor to identify opportunities for efficiency. Our engineering and technology teams have identified energy efficiencies throughout 10 manufacturing sites in India, Brazil, and the U.S.

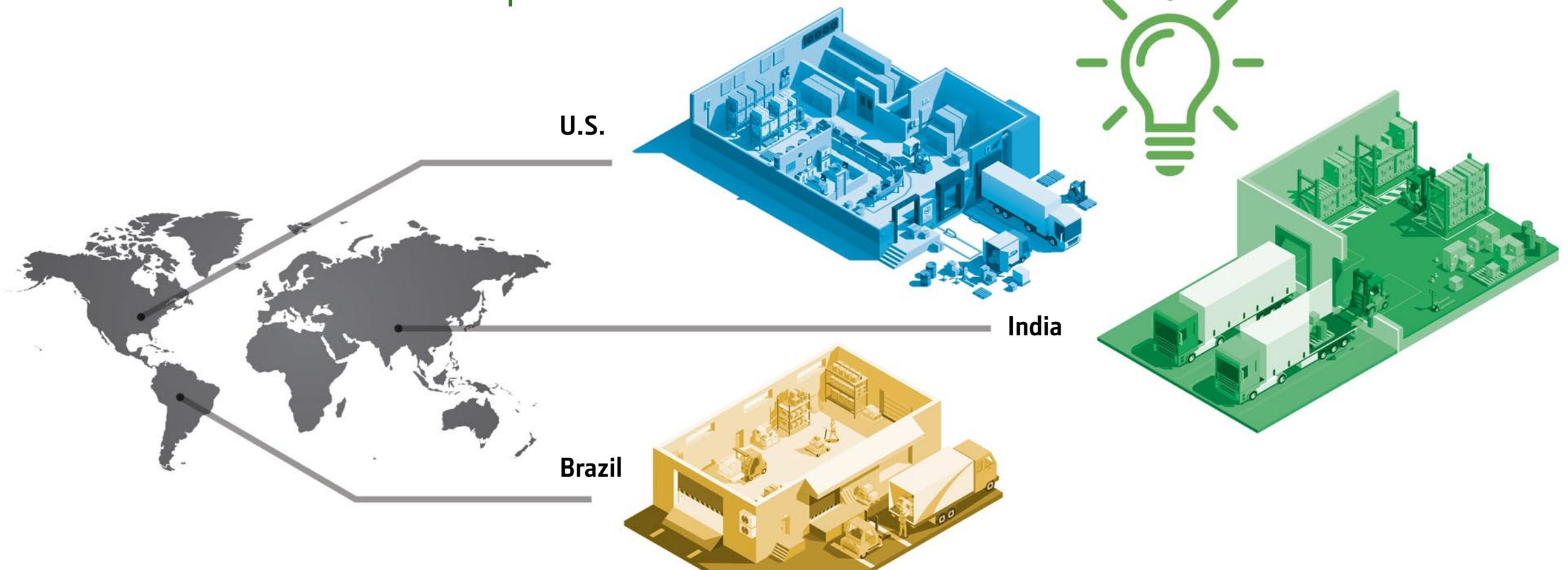
**The teams identified nearly 400 OPPORTUNITIES to realize a reduction in nearly 13,000 METRIC TONS of CO<sub>2</sub>e, equating to almost \$2.4 MILLION (USD) in savings.<sup>1</sup>**

**From these identified opportunities, our global facilities completed several projects on lighting, compressor efficiencies, and updates to condensers, chillers, and cooling towers, equating to nearly 248 METRIC TONS of CO<sub>2</sub>e savings and \$147,000 (USD) cost avoidance per year.<sup>1</sup>**

As we continue to invest in renewable energy, several sites are using solar photovoltaics as an important strategy lever for reducing emissions and managing cost. For example, a Wirtgen Group production site in Pune, India, completed a new solar photovoltaic project in 2023, with a 25-year lifetime, that is expected to help us avoid about **1,000 mt-CO<sub>2</sub>e emissions per year.<sup>2</sup>**

<sup>1</sup>Emissions calculations are estimated with site-specific Scope 2 market-based emission factors, and cost savings are estimated based on the site's utilities costs.

<sup>2</sup>Emission calculations are estimated with site-specific Scope 2 market-based emission factors.





## UPSTREAM GHG EMISSIONS— SCOPE 3, CATEGORY 1

Engaging our supply base is crucial to our success in reducing upstream greenhouse gas (GHG) emissions. From strategically analyzing product materials and supplier data, we have identified the opportunities in partnering with our supply chain that can have the most significant impact on GHG emissions.

Many of these priority areas have a significant overlap with the materials that will be critical to achieving the company’s Leap Ambitions around product circularity. For fiscal years 2022 and 2023, we focused on collaborating with suppliers in energy-intensive industries such as steel, castings, tires, hydraulics, electronics, batteries, engines and power systems.



Currently, we are estimating Scope 3, Category 1 GHG Emissions based on spend and industry average emissions data. However, the ideal future state is for supplier-specific emissions data to inform these calculations. We are encouraged that approximately 65% of our key suppliers by spend are measuring and publicly reporting certain categories of their emissions. Engagement with our supply base to continue working on measuring and reporting their emissions and setting goals to reduce those emissions is a key initial part of our strategy to improve Scope 3 measurements and our sourcing decisions. We continue to take steps to work with suppliers so that they can grow with us to achieve our Leap Ambitions.

De Jong Manufacturing Inc. is an example of a supplier relationship that is supporting our sustainability journey. De Jong Manufacturing Inc. is a woman-owned small business that supplies metal fabrications to us. In order to continue to be eligible for our Supplier Achieving Excellence program, they began calculating and estimating additional CO<sub>2</sub>e emissions like Scope 2 and some Scope 3 categories in 2023. The company also completed our sustainability assessments.



## WASTE INTENSITY

With the launch of the Leap Ambitions, we transitioned our focus from recycling waste to intentionally working to generate less waste relative to our operations. Global teams are focusing on process management and partnering with logistics and supply management to achieve our 2030 Leap Ambition of reducing waste intensity by 15%.

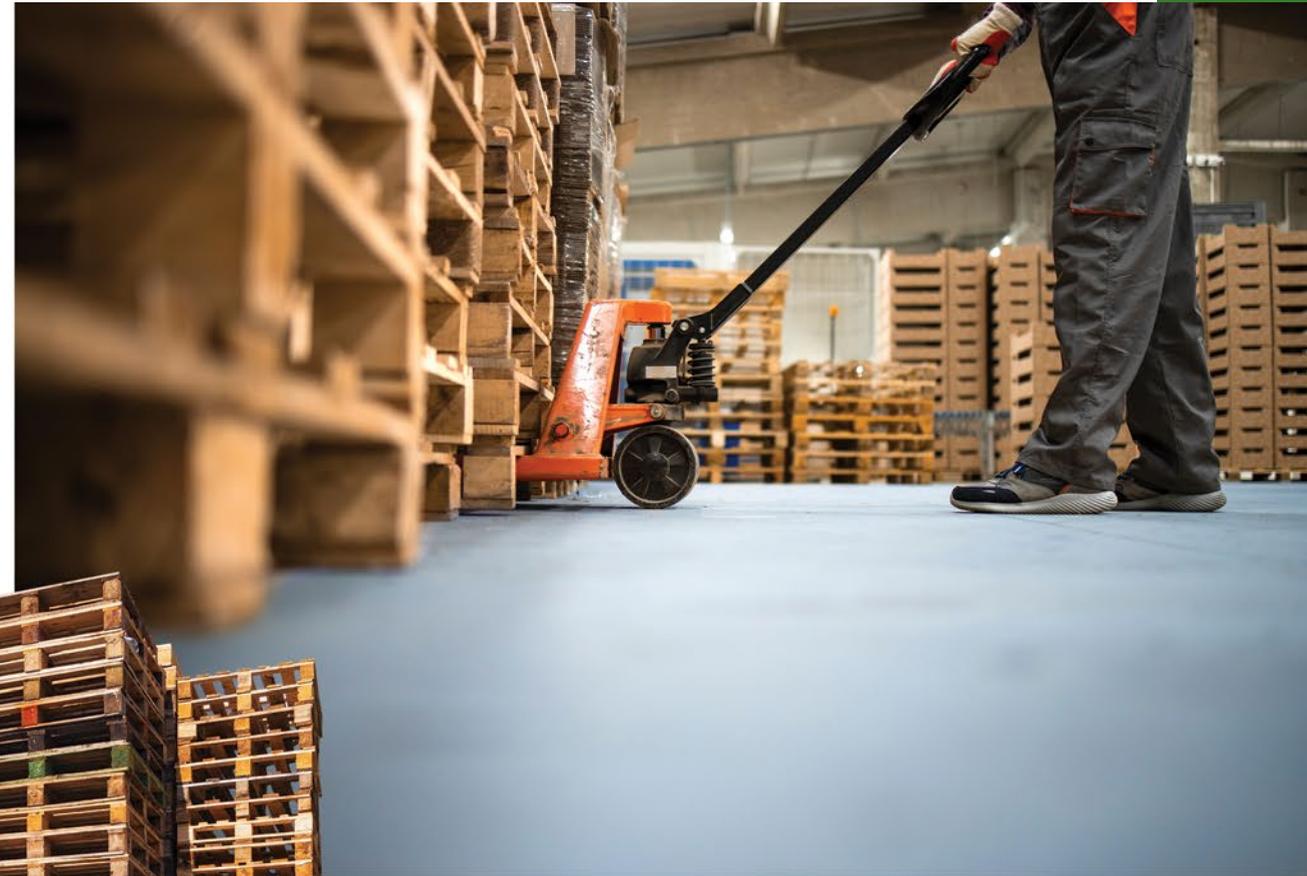
For 2023, we started to identify more opportunities throughout our facilities to reuse wood instead of shredding or discarding it. Several manufacturing and warehouse sites were able to start implementing projects to design out waste and improve reuse and recycling:

Working with a wood-recovery supplier, John Deere Augusta Works in Georgia was able to **reuse nearly 600,000 pounds of wood.**

Our North American Parts Distribution Center (NA-PDC) in Milan, Illinois, also deployed a similar Wood Waste Reduction Project with astounding results. **Nearly 1.4 million pounds of wood was diverted for reuse as opposed to shredding or sending it to the landfill.**

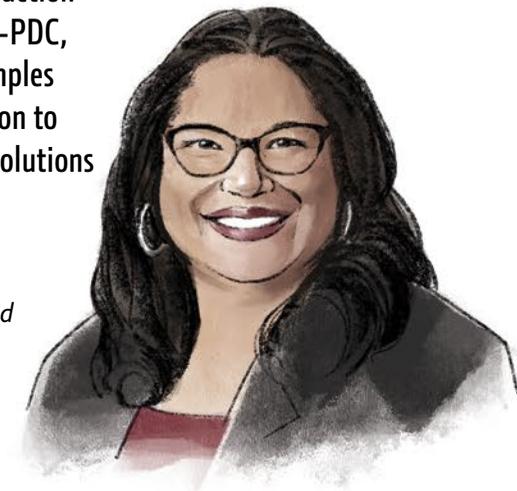
John Deere Beit Hashia Works Ltd. (JDBH), in Israel reduced **nearly 40,000 pounds of wood waste by updating suppliers and implementing returnable packing metal racks.**

Reused Over  
**2M**  
Pounds of Wood



“The wood reuse and reduction projects at Augusta, NA-PDC, and JDBH are early examples of successful collaboration to implement sustainable solutions within our operations.”

**MONICA RIOS**  
Global Director for EHS and  
Assistant General Counsel



# WATER INTENSITY

Water is a key input not only for our customers but also for our global manufacturing operations.

By using the World Resources Institute Aqueduct Water Risk Atlas tool, certain John Deere manufacturing sites were determined to be in water-stressed areas, mainly in Mexico, India, and China. By 2030, we aim to reduce freshwater consumption intensity by 10% at these water-stressed manufacturing locations. We plan to achieve this goal by optimizing water reuse, developing more process efficiencies, improving infrastructure maintenance, and increasing gray-water use.

**NEARLY  
30,000 CUBIC METERS**

reduction in water consumption at Dewas and Pune Works compared to 2021



In India alone, multiple projects have been implemented to reduce water consumption at Dewas Works and Pune Works:

## JOHN DEERE DEWAS WORKS

Water consumption was reduced by eliminating the use of water in the paint booth by transitioning to a dry booth.

The project involved replacing the water scrubber with a filtering mechanism that is dry in nature and collects paint dust and contaminants from the booth.

Other Dewas projects worked on in 2022 and 2023 include:

Deployed electronic submetering to track the exact consumption of different water uses.

Installed sensors in bathroom and kitchen faucets to control water flow.

Switched to treated/gray-water use for toilet flushing in the administration building washrooms.

## JOHN DEERE PUNE WORKS

The facility added a second treatment plant to gain efficiency in water recycling and reuse for industrial wastewater and sewage treatment. This also allowed more gray water to be reused in the bathrooms on additional floors at the facility.

## Non-Water-Stressed Sites Find Savings Too

Work also is underway at other facilities to decrease water use, even if those operations are not water-stressed sites. For example, at John Deere Harvester Works in East Moline, Illinois, we implemented improvements to reduce overflow from 6.5 to 4 gallons per minute in the front-end equipment paint booth. These updates can save nearly 2,700 gallons per day in rinse-water waste.

# *People and Communities*





## OUR PRIORITIES

- Attracting and retaining the best talent to solve some of the world’s biggest challenges
- Delivering an unmatched employee experience
- Embedding Diversity, Equity, and Inclusion (DEI) principles into all aspects of how we run
- Maintaining a safety focused mindset by improving total recordable incident rate 20% by 2026
- Uplifting smallholder and resource-constrained farmers, home communities, and our workforce

## WHAT WE HAVE DONE

- Introduced multiyear people-focused strategy
- Continued to build our global talent pipeline through upskilling, apprenticeship programs, leadership accelerator programs, and development events
- Created a DEI Global Advisory Board to drive impact and accountability
- Held an Employee Resource Group (ERG) Leadership summit
- Introduced innovative new employee safety programs
- Strengthened our support of global food systems with three of the largest grants in the John Deere Foundation’s history, totaling \$19M USD
- Celebrated 75<sup>th</sup> anniversary of the Foundation
- Supported STEM education for youth in our communities nearly four million hours of volunteering
- Collaborated on two documentaries supporting our customers and communities

LEAP AMBITION	TARGET YEAR	PROGRESS
20% improvement in Total Recordable Incident rate	2026	5% increase <sup>1</sup>

<sup>1</sup>Progress is based on 2023 results compared to the 2021 baseline. The Total Recordable Incident Rate increased in 2023 compared to the 2021 baseline.



[Click here to see our full sustainability metrics.](#)



## PEOPLE STRATEGY

In 2023, we launched our multiyear people-focused strategy — a move that allows us to lead in the pursuit of excellence.

Our strategy is comprised of four components:

- Inspire and engage our people
- Build our global talent pipeline
- Lead with data, insights, and technology
- Refresh our culture

Our focus on Diversity, Equity, and Inclusion flows throughout each component, with the aim of elevating our people’s ability to pioneer new solutions and ultimately unlock value.

We know that it is our people who generate the energy, expertise, and focus that separates us from our competitors, and will deliver on our Leap Ambitions.

**“At the heart of our Company’s success lies our unwavering commitment to our people. In creating the multiyear people-focused strategy, we have taken a decisive step towards delivering an unmatched employee experience. As we continue to evolve and grow, we remain steadfast in our commitment to our people and to the pursuit of excellence in all that we do.”**

**FELECIA PRYOR**  
Chief People Officer and Senior Vice President



# BUILDING OUR GLOBAL TALENT PIPELINE

At every Deere location around the world, we focus our efforts and strategies on both finding the best talent and building a pipeline of candidates prepared to support our future.

This approach is firmly linked to our mission for employees to choose their own path and build their own capabilities by gaining the necessary experience, skill-building opportunities, career planning, and leadership development necessary to map out a successful future at Deere.

Whether an employee's goal is to grow in their field, within their current role, or as a team, we believe we offer the tools and solutions needed to fuel the individual's learning journey while unlocking career opportunities. And most importantly, these opportunities touch nearly every corner of our enterprise.



## DEI GLOBAL ADVISORY BOARD

We know how important it is for prospective and current employees to experience a welcoming work environment. Our commitment to Diversity, Equity & Inclusion is built on our strong foundation of integrity and treating each other with fairness and respect. This commitment is stated in our Code of Business Conduct. As we prepare our people to meet tomorrow's food, housing, infrastructure, and energy challenges, we will need everyone's perspectives and ideas to drive progress and fuel creative problem-solving. By valuing both our differences and our shared humanity, we can succeed in delivering an unmatched employee experience.

Grounded in the connection between our Smart Industrial strategy and DEI, we founded a new DEI Global Advisory Board to provide strategic oversight and leadership-driven progress on inclusion. Other teams include:

- Regional councils to drive accountability.
- Partnership with local business units to support our culture.
- A global DEI team to set our winning strategy.
- Leadership councils to drive impact.
- ERGs and professional organizations to support our strategy activations.

**“By maximizing the full value of our ERGs, we will enable their unique ability to provide valuable insights to our people, business, and product strategies in the diverse global markets where we operate.”**

**ALISIA ATWATER**  
Global DEI Lead



## ERGS GLOBAL DEVELOPMENT

Employee Resource Groups (ERGs) are an essential component of our people-focused strategy. This year, to provide a meaningful way to connect and expand the impact of our ERGs, we held a two-day ERG Leadership Summit at our global headquarters in Moline, Illinois.

The summit included representation from all 13 ERGs from across the globe. The summit provided a collaborative environment to learn more about the growing importance of ERG roles and strategize on further opportunities to support our People Strategy.

By working together, we believe we can attract, develop, engage, and retain top talent globally while continuing to champion policies, practices, and behaviors that amplify our innovations on behalf of people, communities, and the planet.

*(Story continues on page 40)*





## NORTH AMERICA

### Strategic upskilling

Strategic workforce planning is proactively aligning an organization’s workforce with strategic objectives. It involves forecasting future workforce needs, identifying high priority skill gaps, and developing targeted strategies to address them. As we grow our global talent pipeline, the initial focus is on three areas for upskilling — Electrification, Data and Analytics, and Embedded Software.

In alignment with our Leap Ambition goals around developing a fleet of battery-electric powered machines, we have launched the first pilot to upskill our engineers in the critical field of electrification. By expanding their abilities and documenting their expertise, we are investing in our existing talent to help build our talent pipeline.

This pilot focuses on closing skill and position gaps in electrification. The first wave includes ten engineers from various disciplines who will give feedback on the quality and applicability of the program while enhancing their skills.

The next phase of the pilot in 2024 will include identifying additional engineers seeking to enter the electrification field and scale the program to close our future gaps.

Additionally, in our learning experience platform, Compass, pilots for Data and Analytics and Embedded Software were initiated.



To learn more about Compass, see the [2022 Sustainability Report](#).

### New Technology and Engineering Talent

At Deere, we continually expand our recruiting efforts to cultivate new technology and engineering talent.

In 2023, we expanded our recruiting reach through partnerships with several organizations to increase brand awareness to attract prospective technology and engineering talent, including:

- [Completed a brand-awareness campaign at AFROTECH™, which reached over 20,000 subscribers to the AfroTechInnovators database.](#)
- Sponsored a booth and networking event at the 10th annual Lesbians Who Tech & Allies global virtual pride summit, allowing us to reach over 10,000 technology professionals.
- Created an environment for prospective engineers to have personal opportunities to interact with multiple Deere team members at the Society of Hispanic Professional Engineers (SHPE) National Convention. For instance, this year we mentored students as they worked together to solve the annual Xtreme Engineering Challenge.



To learn more about the Company’s recruitment and hiring practices, see the [2022 Sustainability Report](#) and [Careers at John Deere](#).



### Apprenticeships

We continue to reach into our home communities and identify future colleagues. Since 2019, we’ve participated in the U.S. Department of Labor’s high school Registered Apprentice program by providing work-based learning opportunities for students after they have completed their junior year of high school. By connecting with local high schools, we’ve had success in hiring 72% of program graduates.

**“We continue to invest in high-potential, diverse talent early in their career journey. By doing this we’re creating a clear path for exceptional talent to join and stay with John Deere.”**



**HEATHER ARTHOFER**  
Principal Engineer

**Currently offered at 15 Deere locations, we’ve expanded the apprenticeship program to include five occupations — information technology (IT) software engineer, computer numerical control (CNC) machinist, welder, assembler technician, and customer service representative.**

Our IT apprenticeships recently expanded to additional high schools in Illinois. The program will provide a minimum of 2,000 hours of hands-on experience and an industry-accredited certification that may be accepted in place of a two- or four-year degree for an entry-level position. Two of our IT software engineer apprentices are students at Chicago High School for Agriculture Sciences, a magnet institution for students pursuing interests in agriculture.

*(Story continues on page 41)*



**Chicago High School for Agricultural Sciences**

We continue to support prospective and emerging talent from the Chicago High School for Agriculture Sciences (CHSAS) to build a pipeline focused on STEM and agriculture career paths in our home communities. This year we:

- Expanded support through job shadow events, speaking engagements, and mentoring programs.
- Hired two students as IT software engineer apprentices.
- Awarded a total of \$30,000 USD to graduating seniors.
- Awarded a total of \$40,000 USD to rising college sophomores who graduated from CHSAS.



To see more on our support of CHSAS, see the [2022 Sustainability Report](#).



**LEADERSHIP ACCELERATION PROGRAM**

**52%** OF GRADUATES RECEIVED EITHER A PROMOTION OR TOOK A LATERAL POSITION

**LATIN AMERICA**

**Early Leadership Acceleration Program**

In Latin America, we have focused on continuing to develop early talent via our Early Leadership Acceleration Program. This program includes self-assessments, behavior case presentations, leaders teaching leaders, and a hackathon with challenge-solution methodology. The program has been successful due to the diversity of the participants networking together in pitches, future-driven leadership in self-directed studies, and discussions for developing leadership skills. 52% of the program graduates from the 2022 class have either received promotions or taken new lateral positions. There have been early indicators of success for the 2023 program as well, with 30% of recent graduates having received promotions or taken lateral positions.

**Apprenticeships in Brazil**

While companies in Brazil are required by government regulation to provide apprenticeship opportunities, our program has flourished with apprenticeship training that highlights career development, community engagement, and diversifying our workforce.

For example, several former apprentices now are factory managers, the top position at our global manufacturing facilities in Horizontina and Catalão.

“Our program has high relevance for our community and our company because of these examples.”

**CARMEN FRANK**

*Human Resources Manager in Horizontina*



Since an apprenticeship is considered the first employment contract a worker will have, Frank said John Deere works very hard at introducing opportunities to the community and then transitioning apprentices into the company. Frank added that for every apprentice job opening, there are two to three times the number of applicants, underlining the community’s desire for employment at Deere.

There are several examples of our programs flourishing and helping to build a diverse and inclusive workforce at Horizontina. This year, our manufacturing and assembly class increased female participation to 75%, our highest female participation compared to recent years. In 2023 we also hired five apprentices from our program that focuses on providing employment opportunities for people with intellectual disabilities.

In the last three fiscal years, Brazil has welcomed, and trained approximately 600 apprentices from local communities.



**DEVELOPMENT DAYS TOUR**

**1,300**

**EMPLOYEES**

**1,500**

**HOURS OF**

**DEVELOPMENT TIME**

**EUROPE**

**Development Days Tour**

Based on employee feedback, our German team created and launched a development tour at six of their business locations. They conducted two-day onsite-development events in each location to enhance employee-growth opportunities and transformation to a future-oriented learning culture while also strengthening relationships and networking. Nearly 1,300 employees participated in roughly 1,500 hours of development time across 163 sessions.

Our employees were able to learn about new tools, receive individual career counseling, network with industry peers, and attend leadership training and classes on “change-and-design” thinking.

*(Story continues on page 42)*

**Apprenticeships**

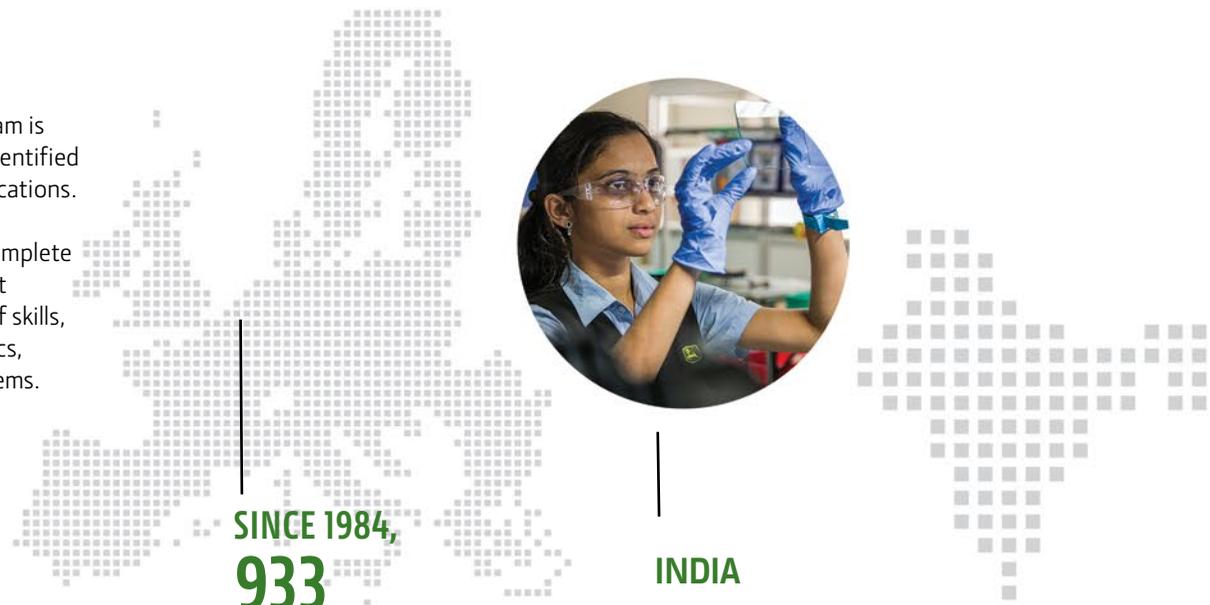
John Deere’s German apprenticeship program is about 100 years old and began due to an identified shortage of skilled labor and worker qualifications.

In Mannheim, more than 40 apprentices complete training annually in our 24,000-square-foot facility. The program teaches a wide range of skills, including milling, CNC technology, electronics, mechatronics, and multiple production systems.



**“As a company, we started this at a time when apprentices were only getting unskilled training. We understood that to better connect our workforce to the community we had to provide a more meaningful training opportunity.”**

**LINUS BAUMHAUER**  
Factory Manager at John Deere Mannheim Works



**SINCE 1984,  
933  
APPRENTICES HAVE COME  
THROUGH MANNHEIM'S  
PROGRAM WITH  
477  
STILL ACTIVE TODAY**

For the Wirtgen Group, similar training exists through its vocational program. Wirtgen and the other German brands of the company have employed 340 trainees. With a mission of “training tomorrow’s workforce,” Wirtgen offers its apprentices permanent employment at one of its 45 subsidiaries around the globe, including facilities in Brazil, China, and India. A highlight of the program involves the second year of training in which enrollees of the German production locations gather once a year at the AZUBI (German for “trainee”) Tech Days to take part in their own roadbuilding project. About 80 trainees from all five Wirtgen brands participated in the three-day event in 2023.



**INDIA**

**Development Road map**

India’s Diversity Development Road map program is focused on helping women prepare for leadership opportunities within our company. Since it began in 2017, nearly 700 women at Deere have taken part in the program.

The road map includes training for all levels of leadership, categorized by:

- Women leaders poised for the next big leap: providing connections to academic immersion with leading business schools and action learning projects.
- Emerging leaders at mid-career: recognizing the objective of overcoming barriers for continued development.
- Entry level trainees: “Taking Flight” — an innovative program — helps outline potential challenges for working women in India and how to address them.

This layered and focused approach towards development of female talent has helped retain and increase diverse representation across all levels in the country.





## EARLY DEVELOPMENT OF STEM TALENT

John Deere’s commitment to development extends far beyond the talent in our ranks and also includes youth within our home communities. Why? We know the power of education to expand opportunities, generate wealth, and affirm human dignity, and we believe everyone deserves a high-quality education. That’s why in 2021 the John Deere Foundation made a public commitment to ensure equitable access to education to at least one million marginalized youth in our home communities by 2030.

In 2023, the Foundation served more than 113,000 youth across 35 company locations in eight countries through John Deere Inspire. Through this Science Technology Engineering and Mathematics (STEM) initiative, we have built and expanded a stack of offerings, including *FIRST*, Project Lead The Way, and MIND Research’s ST Math, to provide all youth in our communities with the skills and experiences needed for the careers of the future. Since the launch of John Deere Inspire more than 10 years ago, the Foundation has invested nearly \$14 million in its key programs.

To advance the development of youth in our communities, hundreds of our employees serve as mentors, coaches, and volunteers to provide youth with the expertise, guidance, and a sense of belonging that are vital for them to explore and pursue education and careers in STEM. In 2023, company employees recorded nearly 70,000 hours of volunteerism through John Deere Inspire and other educational programs.

And the Foundation’s commitment to *FIRST* continues to grow with our new support for the *FIRST* LEGO League Challenge qualifiers in Germany and France.

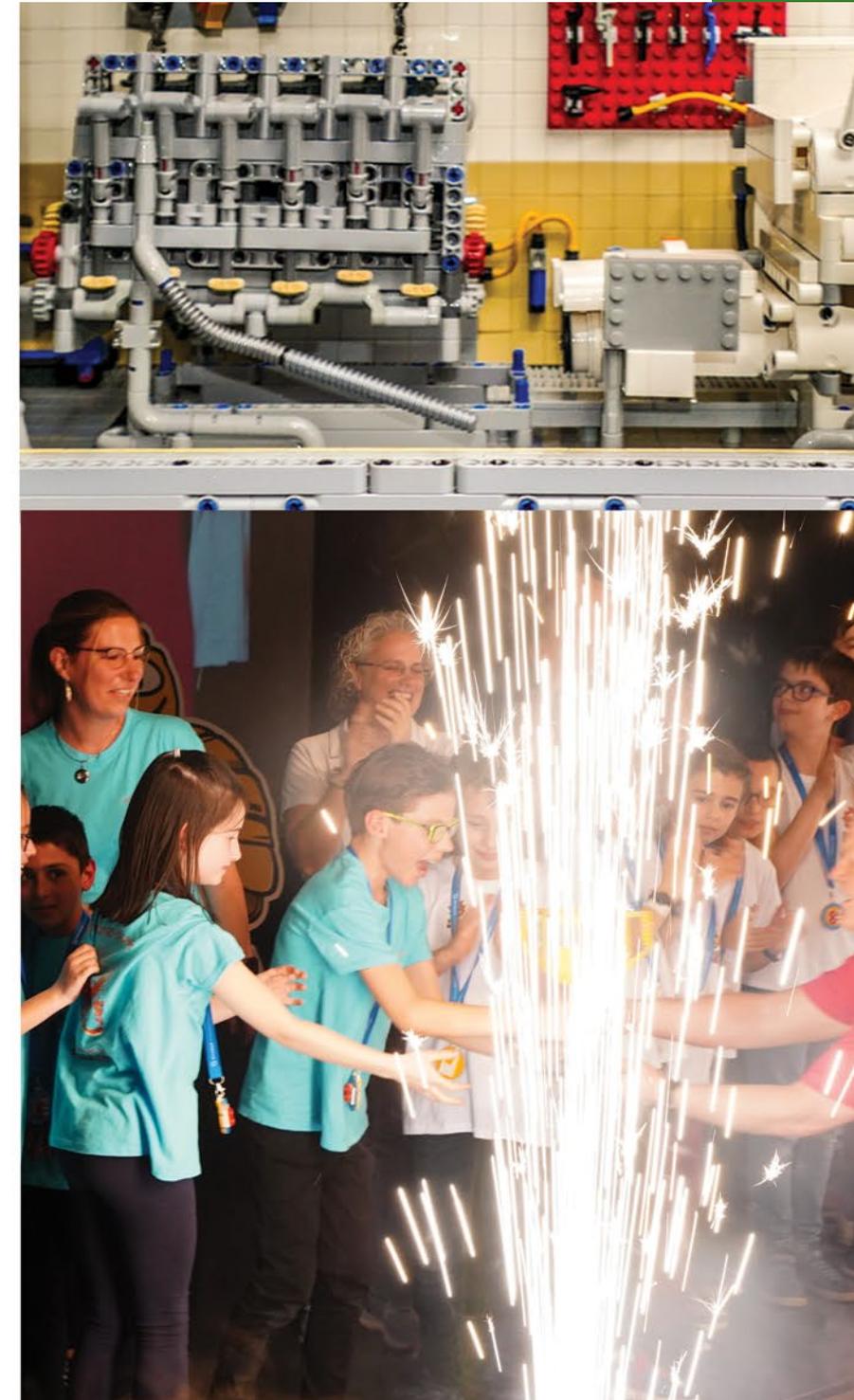
*FIRST* LEGO League is one of three *FIRST* programs the John Deere Foundation sponsors. The Challenge division is designed for youth ages 9–16 globally and 9–14 in North America. For the 2022–23 season, we were a global program sponsor for *FIRST* LEGO League Challenge, supporting 280,000 youth in over 100 countries. Our involvement makes us one of the top three team sponsors for *FIRST* LEGO League Challenge and second for total *FIRST* teams supported.

This past season’s challenge was themed “Superpowered,” which provided students the opportunity to explore where energy comes from and aligns with our work in sustainability.

**“The number of youths reached, the dollars invested, and the number of volunteer hours achieved don’t do justice to the true impact of John Deere Inspire. Last year alone, the Foundation’s investments meant nearly four million hours of top-tier STEM education for youth in our local communities.”**

**PAT BARNES**

*Global Social Responsibility Lead for equity and education at John Deere*



## OUR HIGHER PURPOSE IN ACTION

At John Deere, we take great pride in our work because we know the solutions we create and the products we manufacture genuinely enhance the lives of those who rely on us. We strive to enhance the lives of our customers every day. But we are also driven to make a meaningful difference in the lives of our neighbors near and far. As a company, we take on the world's toughest challenges with compassion, innovation, and an unwavering commitment to improving the world we live in.

In 2023, our employees volunteered a record 261,214 hours to support nearly 5,000 nonprofit organizations around the world. For their volunteerism and personal giving, John Deere employees also earned nearly \$9 million in rewards from the John Deere Foundation, another record.

In addition, we work to amplify the voices of our customers. In 2023, we collaborated with Al Roker Entertainment to create a documentary titled "Gaining Ground: The Fight for Black Land" as part of our LEAP (legislation, education, advocacy, and production systems) Coalition.

In collaboration with the National Black Growers Council and the Thurgood Marshall College Fund, our [LEAP Coalition](#) was established in 2020 to help eliminate barriers created by heirs' property and provide resources to advance the lives and livelihoods of Black farmers. In November 2022, the Center for Heirs' Property Preservation (CHPP) joined LEAP as its newest member. The Leap Coalition, along with the CHPP have seen great success this year with **27 titles cleared** and **354 wills drafted**.

**261,214**  
VOLUNTEER HOURS  
NEARLY  
**\$9M**  
DONATED TO  
LOCAL NONPROFITS

**GAINING GROUND**  
THE FIGHT FOR BLACK LAND

The documentary, "Gaining Ground", spread awareness on the injustice in Black farming in America and the devastating impact of heirs' property – property passed to family members by inheritance, usually without a will or proper estate planning. Highlights since the documentary's release in June 2023 include:

- Private screening at the Smithsonian's National Museum of African American History & Culture in Washington, D.C.
- Screened at 12 film festivals
- Won four "best documentary" awards



For additional awards, recognition, and information, please visit the film's website.





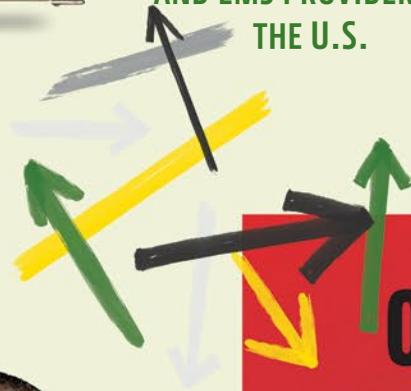
NEARLY  
**700,000**  
VOLUNTEER FIREFIGHTERS  
AND EMS PROVIDERS IN  
THE U.S.



“If there weren’t volunteer firefighters or volunteer EMS, you could be waiting 30 or 40 minutes before an ambulance or fire truck could get to you. Recruiting is a nationwide struggle right now.”

**JACOB SMITH**

*Product Development Specialist at John Deere Davenport Works and Third-Generation Volunteer Firefighter*



**ODD HOURS  
NO PAY  
COOL HAT**



BEHIND THE LINES OF AMERICA'S  
VOLUNTEER FIRE SERVICE

**THE HEART OF VOLUNTEERISM**

Through our other documentary of the year — [“Odd Hours, No Pay, Cool Hat”](#) — John Deere and the National Volunteer Fire Council (NVFC) shine a spotlight on the critical role volunteer firefighters and emergency responders play while also calling upon others to replenish their shrinking ranks.

Inspired by an original story by Peter Yoakum, “Odd Hours” reveals that nearly 700,000 Americans, or two-thirds of the nation’s firefighters, volunteer to provide most of the country with fire and emergency services. From Monsey, New York, to Exeter, Nebraska, to Graton, California, volunteer firefighters from all walks of life leave their homes, workplaces, and places of worship to help others when they need help the most.

John Deere, the company’s founder, was himself a volunteer firefighter and community servant. His legacy lives on through the hundreds of Deere employees, dealer personnel, and customers who provide their communities with this vital service.



**HIGHLIGHTS SINCE THE DOCUMENTARY’S RELEASE  
IN APRIL 2023 INCLUDE:**

- More than 240 film screenings across 28 U.S. states, as well as Canada and New Zealand
- Scheduled to air on public television stations in 2024
- NVFC saw a 40% increase in applications through Make Me a Firefighter campaign — nearly 1,000 new prospective volunteers

# CREATING OPPORTUNITY FROM THE GROUND UP

For farmers to have an opportunity to leap forward economically, socially, and environmentally, they must first have their feet planted firmly in rich, healthy soil. Farmers' land is their most important asset in every respect. Soil can provide them with the nutrients, water, organic material, microbes, chemistry, and other resources critical to the successful growth of their crops. Healthy soil produces healthy crops, which feed healthy people, who create livelihoods, enrich food systems, and protect ecosystems.

Because of the fundamental importance of soil health, particularly in sustaining and uplifting millions of the world's most vulnerable smallholder farmers, the John Deere Foundation supports the work of One Acre Fund and The Nature Conservancy®. Through soil health, agroforestry, and conservation efforts, these organizations work to ensure the land will provide for farmers and all of us today and into the future.

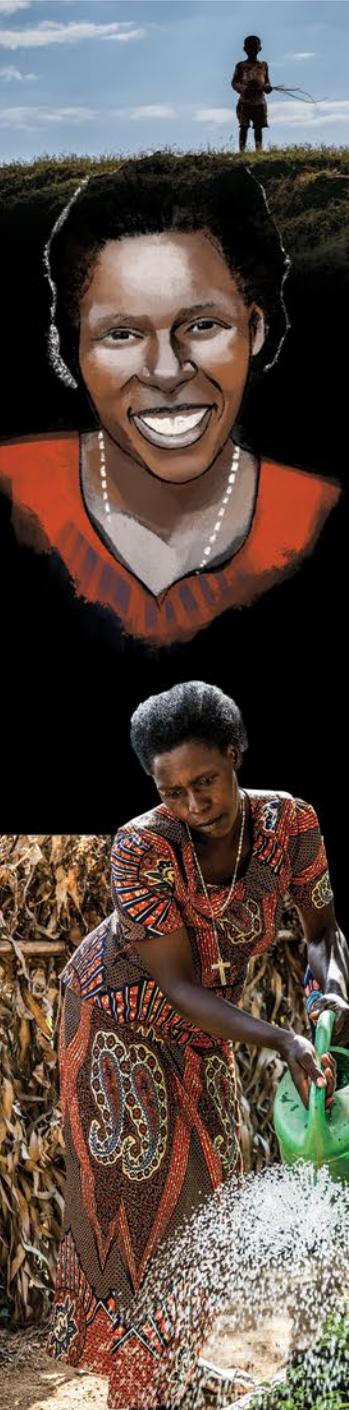
## FARMERS FIRST MEANS SOIL FIRST

One Acre Fund's "farmer-first model" is as simple as it is brilliant — One Acre Fund provides farmers with everything they need to grow more food and earn more money. Since its founding in 2006 and by staying true to its model, One Acre Fund has grown across sub-Saharan Africa to reach more than four million farm households in 2022.<sup>1</sup>

To its impressive array of programs, One Acre Fund has added a variety of resources intended to support farmers in maintaining and improving the productivity of their soil.

**SOIL STEWARDSHIP:** In 2023, One Acre Fund expanded its promotion of soil health-improving practices, such as intercropping, crop diversification, composting, mulching, and lime application, as well as detailed agronomic guidance on input choice, planting timing, and farming techniques. In Tanzania, One Acre Fund promoted the expansion of soil testing, reaching 2,000 farm households.





While One Acre Fund's reach has grown, its success continues to be measured one farm family at a time. "I have experienced a better life since I started working with One Acre Fund," Consilee Dusabimana, an agroforestry farmer in Rwanda, said. "Trees are important to the community, to the country, and to everyone. Personally, the trees are very important because when I produce them, I earn money that helps me to pay the health insurance for my family and also buy the fertilizers that I get from One Acre Fund, buy school materials for the children, and so forth."

**CONSOLEE DUSABIMANA**  
*Agroforestry Farmer in Rwanda*



**750K**  
farmers unlock  
upwards of

**\$64.8**  
million in  
economic value

**AGROFORESTRY:** In 2022, One Acre Fund supported more than 2.8 million farmers in planting 62 million trees covering 45 species.<sup>2</sup> The benefits of agroforestry to farmers include carbon sequestration, slowing deforestation, soil protection, biodiversity, and providing a valuable long-term crop (wood) asset that can be used or sold in time of need. One Acre Fund has a goal of planting one billion trees cumulatively by 2030.

Because of the impact of One Acre Fund's work on the lives of farmers like Dusabimana, the John Deere Foundation awarded the organization a five-year grant totaling \$7.5 million to support its operations. This is the largest grant in the Foundation's history. Through this grant, the Foundation will help 750,000 farmers unlock upwards of \$64.8 million in economic value.



**FROM FARMS TO FOODSCAPES**

The health of a farm depends not only on its soil but also on the health of the larger geography that surrounds it. The Nature Conservancy refers to these geographies as “foodscapes,” which are the geographical components of the global food system, combining both production systems as well as location. Through a foodscape lens, we can gain a greater appreciation for how food production depends upon a healthy environment.

To protect and strengthen some of the world’s most vulnerable foodscapes and the farmers who depend upon them, the John Deere Foundation has joined with The Nature Conservancy to conduct forest restoration, agroforestry, and conservation on a global scale. Specifically, we will work together in Gran Chaco in Argentina, Araguaia in Brazil, Kalimantan in Indonesia, Chiapas in Mexico, and the United States to restore degraded and deforested areas with native plants; combine where possible native tree species, fruit trees, and crops; and conserve old-growth forests and other ecologically important biodiverse natural habitats.

**“With TNC, they embraced my purpose, and as a result, we were able to diversify our consulting work, focusing mainly on high productivity. The work goes beyond just the crops and livestock. When we work the land it’s like building a gold mine, implementing good practices to achieve sustainability and production, and maintaining this balance for future generations.”**



**ANDRÉ SHINKAI**  
*Farmer in Cerrado region of Brazil*



In addition, Shinkai stated, “When we talk about conservation, we’re already thinking in the medium to long term. It’s not about the next crop season, but about five or ten years ahead. These practices don’t yield short-term results; results are built over time. If you take care and implement these practices, you will see lasting results.”

To support this work, the John Deere Foundation awarded The Nature Conservancy a five-year grant totaling \$6.5 million. This is the second largest grant in the Foundation’s history. Through this grant the Foundation will assist in the planting and protection of 12 million trees, with the aim of generating income for marginalized farmers, enhancing biodiversity, and strengthening vital ecosystems.

<sup>1</sup>One Acre Fund, *Our model*, <https://oneacrefund.org/about-us/our-model> (2023).

<sup>2</sup>One Acre Fund, *2022 Annual Report*, <https://oneacrefund.org/about-us/reports/annual-report> (2023).



**NATE CLARK**  
*Global Director of Corporate Social Responsibility and President of the John Deere Foundation*

**OUR FOUNDATION OVER TIME**



Since its founding in 1948, the Foundation has awarded over \$400 million, with more than \$100 million granted in the last five years alone.

Over its 75 years, the John Deere Foundation has been a vital source of support for families who live, work, and learn in the communities in which the company operates, particularly during the most challenging times. From donations made to further the Civil Rights Movement, to recover from the Farm Crisis of the 1980s, and to eliminate the inequity revealed by the COVID-19 pandemic, the Foundation responds to the ever-changing needs of those close to us.

But what separates the John Deere Foundation from others is its drive to do more than simply respond, but instead act in ways that may prevent harm from occurring in the first place. For instance, as a pioneer in trust-based philanthropy, the Foundation has transitioned largely to unrestricted, capacity-building, and long-term grantmaking to nonprofit organizations. These types of grants provide the nonprofit organizations essential to the health of a community, including food banks, with the consistency and flexibility they need not only to respond more effectively, but also innovate new solutions to the root causes of the challenges our neighbors face.

Our commitment remains evident in our most recent series of grants, totaling \$19 million, to eliminate hunger by increasing access to food, uplifting resource-constrained farmers, and supporting the global food system. Awarded to World Food Program USA, One Acre Fund, and The Nature Conservancy, these are the three largest grants in the Foundation’s history and strengthen John Deere’s commitment to creating a world in which food is a moral right for all.

It’s this type of consistent commitment and vision that helped us earn the Civic 50 award from Points of Light two years in a row. The award recognizes the top 50 most community-minded companies in the U.S.

**“To honor the legacies of John Deere and the John Deere Foundation, we must constantly challenge ourselves to find new ways to give more, and give more effectively, to the communities we proudly serve. As a matter of principle, we have always believed that all our neighbors deserve both the opportunity to make a better life as well as the dignity of having the help of others. This principle will guide us far into the future.”**

# HUMAN RIGHTS

At John Deere, we are committed to honoring human rights and respect the individual dignity of all people. Our commitment to human rights requires that we understand and carry out our responsibilities consistent with company values and practices upheld for all employees and workers in our value chain. Deere works to analyze its human rights impacts in line with the UN Guiding Principles on Businesses and Human Rights and other frameworks as appropriate.

We strive to ensure that human rights are upheld for our employees and all workers in our value chain. Our commitment to respecting human rights is defined in our Code of Business Conduct, Supplier Code of Conduct, Dealer Code of Conduct, and John Deere's Support of Human Rights in Our Business Practices. These codes establish clear guidelines for our employees, dealers, and suppliers, while helping to inform our business decisions. Deere closely monitors and assesses global human rights-related risks and developments as appropriate. Deere develops region- or location-specific guidance and processes as appropriate to address human rights risks in those areas.

John Deere employees have a responsibility to uphold the standards of honor and integrity in the Code of Business Conduct. All employees are required to review the Code and incorporate it into their work and behavior. To foster an inclusive workplace, the Code provides guidance on creating an environment that promotes mutual respect and acceptance. It also discusses how to maintain a high level of integrity when working with customers and suppliers.

When choosing suppliers, we seek to engage with those who comply with laws and uphold values aligned with our own. Our employees regularly discuss the Supplier Code of Conduct with suppliers, and most supplier contracts require adherence to the Supplier Code of Conduct. The Supplier Code addresses the following key areas: labor and human rights, health and safety, environment, and ethics. See the Supply Management section for more information on how we manage supply chain human rights risks.

As the face of the brand to our customers, our dealers, distributors, and their sub-dealers (collectively, dealers) commit to conducting business ethically and in compliance with all applicable laws. Like the other Codes, the Dealer Code covers many topics, including labor, human rights, health and safety, environment, and ethics.



# SAFETY

**THE SAFETY AND WELL-BEING OF OUR PEOPLE IS A TOP PRIORITY. WITH THAT COMES OUR COMMITMENT TO IMPROVE OUR TOTAL RECORDABLE INCIDENT RATE (TRIR) 20% BY 2026, USING 2021 AS THE BASELINE.**

We made progress on implementing best practices and leading indicators for enhancing employee safety over recent years with our Deere Health and Safety Management System. Third-party safety audits are conducted at locations based on level of risk. Conducted at least every four years, these audits review the effectiveness of the Health and Safety Management System, adherence to applicable John Deere health and safety standards, and compliance with regulatory requirements.

To improve our TRIR, we continue to prioritize risk-and injury-reduction strategies, improved ergonomic programs, and additional focus on prevention through design.



Production employees new to a job are statistically more likely to be injured. Several of our facilities have instituted safety-focused projects aimed at helping to develop our new employee workforce:

### WATERLOO (IOWA) WORKS FACTORY'S NEW EMPLOYEE TRAINING LAB:

With the increase in new hires, we updated the tractor and cab assembly operations training lab and curriculum to enhance manufacturing skills for our new workforce to mitigate risks related to safety and ergonomics:

- Introduced six new assembly stations and one proficiency station, impacting IT infrastructure, hand tooling, fixturing, jib, and Below the Hook Lifting Devices.
- Updated training messaging with safety and ergonomic emphasis (biomechanics).
- All training stations have recorded videos explaining the station and emphasizing important safety points.

### DUBUQUE (IOWA) WORKS FACTORY'S NEW EMPLOYEE INTERACTIONS:

By proactively engaging with operators new to the job through an updated operator safety interaction, we aim to prevent injuries. The operator safety interaction includes:

- Regular engagement between the new operator and a cross-functional team consisting of a UAW safety representative, a safety professional, a nontraditional assignment employee, and an ergonomics professional.
- Specific meetings to review personal protective equipment work instructions, lifting-devices usage, stop-work authority, tooling, and out-of-process work.

### MOTORES JOHN DEERE (TORREON, MEXICO) FACTORY'S NEW EMPLOYEE ONBOARDING PROCESS:

- New employees wear a vest of a different color each week to demonstrate each step in the onboarding process.
- A four-week onboarding process of new hires allows everyone to help pay special attention to risks until the new employee is proficient in their operations.

# WE



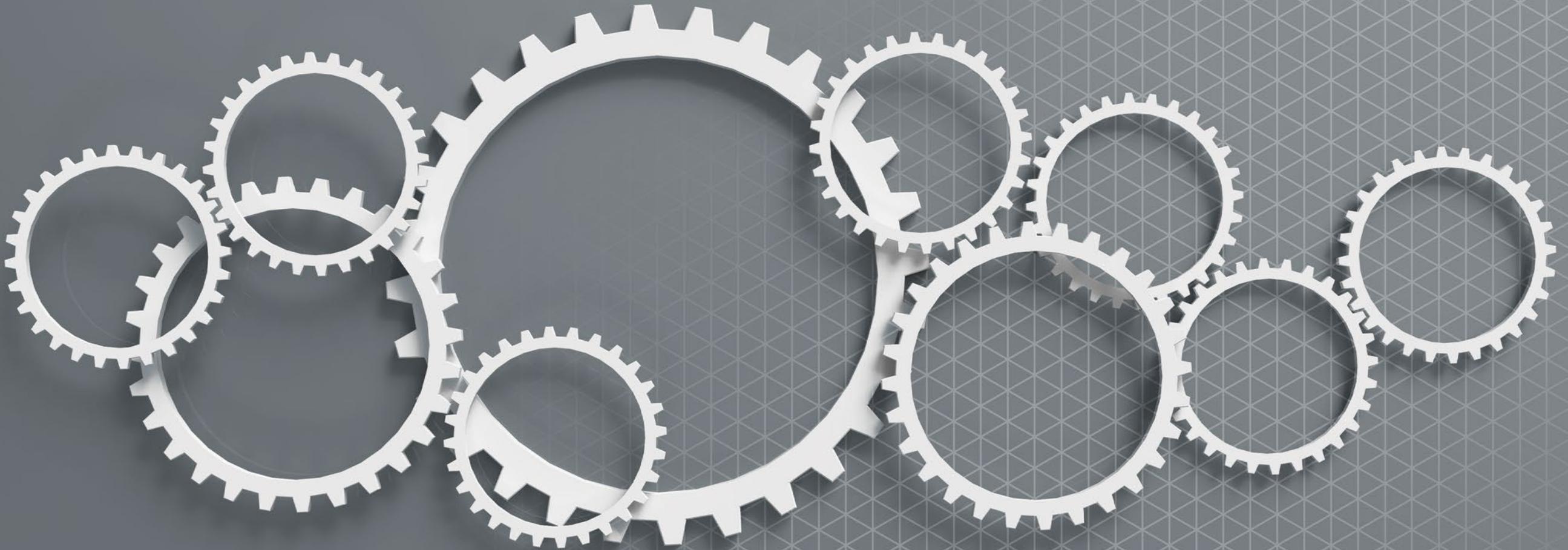
# RUN



# FOR ALL



# *Governance*





## OUR PRIORITIES

Engraining sustainability principles into our business with our Leap Ambitions as the guide:

- Maintaining robust sustainability governance
- Engaging with our value chain and policies as a critical tool for achieving outcomes

## WHAT WE HAVE DONE

- Recognized as one of the World’s Most Ethical Companies for the 16th time
- Matured compliance disclosures with hotline report metrics
- Advocated in the E.U., U.S. and Brazil to highlight benefits of precision ag and sustainable practices for renewable fuels
- Announced the election of Neil Hunn to Board of Directors
- Expanded suppliers completing sustainability assessments

## REPORTING PRIORITIES & STRATEGY

To proactively monitor and assess our reporting topics on a continual basis, we engage with stakeholders that rely on Deere to deliver economic and sustainable outcomes, including our shareholders. During 2023, we invited shareholders representing more than 40% of outstanding share ownership to engage in conversations on a variety of topics. Of those we contacted, shareholders representing approximately 30% of outstanding share ownership participated in meetings and offered us valuable insights. A key focal point of our sustainability focused outreach this year was Deere’s Leap Ambitions.

### IN RESPONSE TO SHAREHOLDER FEEDBACK AND THE EVOLVING REGULATORY LANDSCAPE, WE TOOK CERTAIN ACTIONS:

- Incorporated progress charts on the Leap Ambitions.
- Integrated 2023 business results and Sustainability Report.
- Expanded detail on our path to achieve Scope 3 Category 11 downstream greenhouse gas emission target.
- Highlighted our engagement with our supply chain on sustainability and human rights risk assessments.
- Incorporated details around our strategy for building our talent pipeline.
- Expanded strategy disclosure within Task Force on Climate-Related Financial Disclosures (TCFD) in preparation for our FY24 Climate disclosures in the form of a Climate Transition Plan.



[Click here to view more on Sustainability Reporting Priorities and Strategy.](#)

[Click here to see our full sustainability metrics, frameworks, standards, and reports.](#)

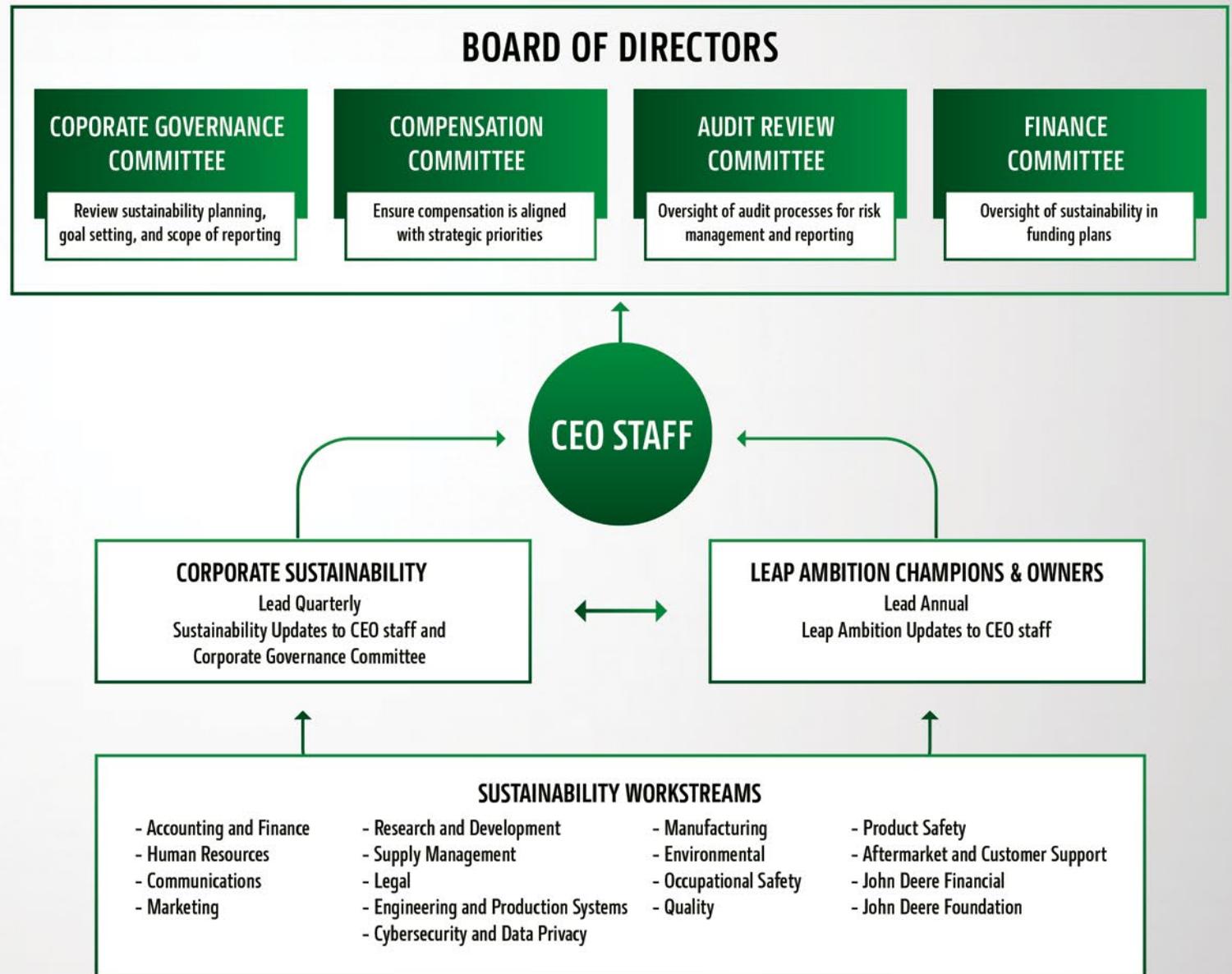
# SUSTAINABILITY GOVERNANCE

The Deere & Company Board of Directors has oversight of sustainability and is responsible for aligning strategic priorities and ensuring, environmental, social, and governance principles are integrated throughout the enterprise.

The Corporate Governance Committee of the Board reviews sustainability topics with management on a quarterly basis. During 2023, the committee was briefed on strategic sustainability initiatives, the evolving U.S. and global regulatory environment for sustainability reporting, new sustainability reporting standards and frameworks, the company’s transition to integrated business and sustainability reporting, the company’s climate reporting road map, feedback from stakeholder engagement, and the landscape of shifting sustainability expectations and practices. Through regular engagement, the committee guides and directs strategic sustainability planning, sustainability goal setting, and the scope of sustainability reporting.

The Compensation Committee of the Board is responsible for ensuring compensation is aligned with the strategic priorities, performance, and opportunities of the company. In 2023, we broadened our inclusion of sustainability components through qualitative assessments in executive compensation programs. For more information see the [2024 Proxy Statement](#).

The full Board of Directors has oversight of the risks and opportunities associated with climate change, and updates are provided to the board in alignment with our Enterprise Risk Management processes. This year, the full Board of Directors received an overview of the current status of sustainability initiatives from across the enterprise, with a primary focus on initiatives that are driving progress on the Leap Ambitions. Additional detail about the Board’s and the company’s governance of climate change can be found in our [Task Force on Climate-related Financial Disclosures \(TCFD\) Report](#).



The chart above depicts the various ways in which the Board committees have sustainability related topics in their activities.

**CEO STAFF**

The CEO Staff team provides direction for and ultimately owns the execution of the company's sustainability initiatives. Oversight and ownership at this level help ensure the company's sustainability initiatives are aligned with and are a core component of the overall business strategy. The CEO Staff team receives sustainability updates at least quarterly. During 2023, updates included strategic priorities and progress updates on our Leap Ambitions, progress toward embedding sustainability into company core processes, the evolving U.S. and global regulatory environment for sustainability reporting, new sustainability reporting standards and frameworks, the company's transition to integrated business and sustainability reporting, the company's climate reporting road map, and stakeholder feedback.

**CORPORATE SUSTAINABILITY**

John Deere's Corporate Sustainability function is part of the Accounting & Finance organization and serves to drive the enterprise's sustainability strategy and governance. This centralized team is responsible for driving, measuring, and reporting sustainability strategies and initiatives at Deere. The team coordinates across the enterprise to measure and report progress on Leap Ambitions and other sustainability metrics, evolve core processes, and engage with external stakeholders to communicate the Smart Industrial Operating Model and Leap Ambitions. This team also partners with the company's technical accounting and internal audit experts to build robust processes and rigor related to sustainability reporting, and oversees the company's external assurance of its sustainability metrics. In addition, the team relies on a broad group of subject matter experts throughout the organization to execute Leap Ambitions through the development and implementation of road maps that align delivery of products and solutions with Leap Ambition outcomes.

**LEAP AMBITION STRATEGY CHAMPIONS AND OWNERS**

Each Leap Ambition has a goal champion and owner. Each goal champion owns the delivery of a goal and is responsible for aligning priorities and resources throughout the organization, reviewing progress and challenges, and driving execution of initiatives to meet the goals. Goal owners have specific ownership of the actions driving the steps needed to achieve the Leap Ambitions. Goal owners guide the efforts of the sustainability workstreams.

**SUSTAINABILITY WORKSTREAMS**

A global, cross-functional team of subject matter experts is critical to the execution of John Deere's strategic priorities. Working together on execution workstreams, they develop the implementation plans for achieving our sustainability initiatives and engage progress to ensure the delivery of action plans. These teams also serve a key role in keeping the organization informed relative to progress and roadblocks as they track and report metrics on a regular basis. Sustainability Workstreams are comprised of individuals with deep technical knowledge in their respective areas of expertise who are helping us solve the most difficult challenges in order to achieve our Leap Ambitions.



# SENIOR LEADERSHIP



From left: Joshua A. Jepsen, Jahmy J. Hindman, Deanna M. Kovar, Cory J. Reed, John C. May, Mary K.W. Jones, Felecia J. Pryor, Justin R. Rose, Ryan D. Campbell, and Rajesh Kalathur.

**John C. May (26)**  
Chairman and Chief Executive Officer

**Ryan D. Campbell (16)**  
President, Worldwide Construction & Forestry and Power Systems

**Jahmy J. Hindman (27)**  
Senior Vice President and Chief Technology Officer

**Joshua A. Jepsen (24)**  
Senior Vice President and Chief Financial Officer

**Mary K.W. Jones (26)**  
Senior Vice President, General Counsel and Worldwide Public Affairs

**Rajesh Kalathur (27)**  
President, John Deere Financial, and Chief Information Officer

**Deanna M. Kovar (23)**  
President, Worldwide Agriculture & Turf Division, Small Ag & Turf, Sales & Marketing Regions of Europe, CIS, Asia, and Africa

**Felecia J. Pryor (1)**  
Senior Vice President and Chief People Officer

**Cory J. Reed (25)**  
President, Worldwide Agriculture & Turf Division, Production & Precision Ag, Sales & Marketing Regions of the Americas and Australia

**Justin R. Rose (1)**  
President, Lifecycle Solutions, Supply Management, and Customer Success

*Titles and years of service (in parentheses) as of January 1, 2024*

# BOARD OF DIRECTORS

Titles and years of service (in parentheses)  
as of January 1, 2024



**John C. May (4)**  
Chairman and Chief Executive Officer, Deere & Company



**Michael O. Johanns (8)**  
Retired U.S. Senator from Nebraska and former U.S. Secretary of Agriculture



**Sheila G. Talton (8)**  
President and Chief Executive Officer, Gray Matter Analytics



**Sherry M. Smith (12)**  
Former Executive Vice President and Chief Financial Officer, Supervalu Inc.



**Tamra A. Erwin (3)**  
Retired Senior Advisor, Verizon Communications, Inc. and Former Executive Vice President and Group Chief Executive Officer, Verizon Business Group



**Dmitri L. Stockton (8)**  
Retired Special Advisor to Chairman and Senior Vice President, General Electric Company  
Former Chairman, President, and Chief Executive Officer, GE Asset Management Incorporated



**Charles O. Holliday, Jr. (15)**  
Retired Chairman and Chief Executive Officer, DuPont and Former Chairman, Royal Dutch Shell plc



**Leanne G. Caret (2)**  
Retired Executive Vice President and Senior Advisor, The Boeing Company and Former President and Chief Executive Officer, Boeing Defense, Space & Security



**Gregory R. Page (10)**  
Chairman, Corteva, Inc.



**Clayton M. Jones (16)**  
Retired Chairman and Chief Executive Officer, Rockwell Collins, Inc.



**Alan C. Heuberger (7)**  
Senior Investment Manager, Cascade Asset Management Company



**L. Neil Hunn**  
President and Chief Executive Officer, Roper Technologies, Inc.

## MEET NEIL HUNN, OUR NEWEST BOARD MEMBER

**YOU HAVE A ROBUST BACKGROUND IN TECHNOLOGY STRATEGY. HOW DOES YOUR EXPERTISE TIE INTO THE WORK DEERE IS DOING?**

Part of what we do at Roper Technologies is help the businesses in our portfolio develop strategies that clearly define where to play and how to win. With the work Deere is doing with innovative technologies and technology-enabled products, they're thinking generations ahead with big solutions to some of the world's largest challenges. So there's a lot of synergies there. We help our great businesses get even better over a long arc of time. I especially appreciate that about John Deere – they're focused on how they can consistently create customer value by helping them do their jobs better and more efficiently. And that's a solid recipe for long-term success.

**WHAT ARE YOU MOST LOOKING FORWARD TO WHILE WORKING WITH DEERE?**

I'd highlight two things here. First, as I mentioned, Deere is focused on helping solve some big challenges – like combating hunger and providing the infrastructure the world needs to flourish and thrive – and I'm excited to be a part of that innovation. Second, I'm a big fan of the work Deere is doing with their team and talent. People are the key to a sustainable competitive advantage – they are the composers of ideas and the architects of innovation. Any time a company authentically focuses so well on its culture and its people, I'm all in.





## CYBERSECURITY AND DATA PRIVACY

Data and connectivity are a critical part of our work at John Deere and in our customers' operations. We have dedicated cybersecurity teams around the globe that are committed to helping protect our customers, dealers, products, and infrastructure.

Our approach to digital security can be found [here](#).

The Board of Directors' Audit Review Committee and Corporate Governance Committee provide oversight of our cybersecurity and data privacy programs. The Chief Information Security Officer (CISO) oversees our global cybersecurity strategy and manages teams around the globe that are committed to protecting

our customers, dealers, products, and infrastructure. Information on the latest cybersecurity trends, strategic initiatives, and metrics are presented quarterly to the board by our CISO. Subject matter experts in areas such as risk management, identity and access management, product security, and information technology (IT) may present at these quarterly updates as well. Our digital risk governance council and executive business conduct council provide senior leadership oversight on information security governance, data governance, digital risk management, and privacy.

We leverage the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF) as the foundational building

block of our global information security program. In addition to internal audits that include information security policies, standards, and guidelines, we work with third parties to assess the maturity of our program within the NIST CSF and develop strategic areas of focus from those assessments.

Building a companywide culture of cybersecurity starts with education. Our goal is to teach employees about key security concepts, trends, and the role each employee plays in helping to prevent cyberattacks. Deere's digital security organization has worked to engage employees in its efforts through multiple forms of regular training and education to include mandatory onboarding training,

phishing simulations, newsletters, and educational events.

Another key part of our cybersecurity culture is the Security by Design program. It combines people, processes, and technologies to integrate security concepts throughout the product development lifecycle. Our cybersecurity professionals partner with software engineers in the development process and use technologies, such as code scanning, to enhance security.

We also take care to respect people's privacy in handling personal data. Our data privacy program is structured to monitor and adapt to comply with changes in

global privacy laws and regulations. Our privacy practices can be found [here](#).

While the European General Data Protection Regulation and other laws have brought increased requirements and general awareness to privacy, we have long focused on ensuring the responsible use of personal data. We maintain our European Binding Corporate Rules, often considered the global gold standard for the transfer and processing of personal data in Europe. Reflecting our commitment to privacy, we routinely submit significant parts of our global privacy program to European regulators for review, as appropriate.

# SUPPLY MANAGEMENT

Our Supply Management and Logistics teams remain committed to applying the foundational importance of compliance in meeting customer needs. This is done through promoting sustainability and further developments in technology and supplier relationships.

This governance aligns with our Leap Ambitions and our strategic sourcing approach, which considers sustainability a key action area, balanced with ongoing expectations for quality, cost, and delivery.

This strategy guides our search for supplier opportunities that further our 2030 goals — those relating to greenhouse gas (GHG) emissions reduction, increased use of sustainable materials, and recyclable materials. To help our suppliers achieve sustainability success, we encourage alignment with EcoVadis. John Deere utilizes EcoVadis to assess suppliers in an objective and independent way. The assessment looks at corporate social responsibility and sustainability management systems.

**Over 1,650 supplier locations have completed sustainability scorecards, equating to 65% of our Tier 1 supplier spend engaging with sustainability assessments.**

These assessments have allowed us to develop a deeper understanding of a supplier’s current state, aspirations, and progress toward sustainable outcomes.

With regards to human rights, we use multiple tools to complete a risk analysis on our supply base and utilize Everstream Analytics, EcoVadis IQ, EcoVadis scorecards, and internal audit results as well as commercial information to establish a risk profile index (RPI) related to human rights. Based on the RPI, suppliers are added to our Supply Chain Risk Management process, and additional verification or audits are completed as appropriate to help reduce the overall risk rating. Key factors of the risk analysis include country and industry risk ratings, specific environmental and labor and human rights risk evaluations, environmental audits, quality audits, sustainability scorecards, and spend level.

We also have sustainability and human rights ingrained within our Supplier Code of Conduct. Our enhanced sustainability expectations cover multiple areas, including the environment, labor and human rights, ethics, and sustainable procurement. Click here to view the [Supplier Code of Conduct](#).

Finally, we continue to assess and work to advance supplier performance in areas like compliance and financial health, using our corrective action process to provide suppliers with opportunities for continuous improvement. We manage the risks associated with critical materials as well. For more information, refer to the [Sustainability Accounting Standards Board \(SASB\)](#).

## DIVERSE SUPPLIER SOURCING

We remain committed to enhancing diversity within our supply base. We believe our strategy increases competition and resiliency in our supply chain, fosters innovation through diversity of thought, and can generate economic value and create jobs in the communities in which we live and work.

In 2023, Deere team members attended multiple conferences to connect with minority-, women-, and veteran-owned businesses and suppliers that are in historically underutilized business zones. These conferences include the Women Business Enterprise National Council Conference (WBENC), National Minority Supplier Development Council Conference (NMSDC), Michigan Minority Procurement Conference (MMPC), National Defense Industrial Association Iowa-Illinois Regional Conference, and HUBZone Conference.

Advantage Capital’s Empower the Change Fund, in which Deere is a lead investor, made its first two investments in 2023. The Empower the Change Fund seeks to invest in minority business enterprises (MBEs) that have demonstrated a proven ability to scale, generate return for investors, and create wealth opportunities for entrepreneurs and employees. We are pleased to see these first two investments close, look forward to the company’s continued growth, and are confident this fund will continue to support scalable MBEs.



Diverse Supplier Sourcing Spend <sup>1</sup>	2023
Women-owned business sourcing	\$747M USD
Minority-owned business sourcing	\$366M USD

<sup>1</sup>Diverse Supplier Sourcing Spend includes all Tier 1 U.S.-based suppliers for indirect, direct, logistics, and aftermarket.

# COMPLIANCE

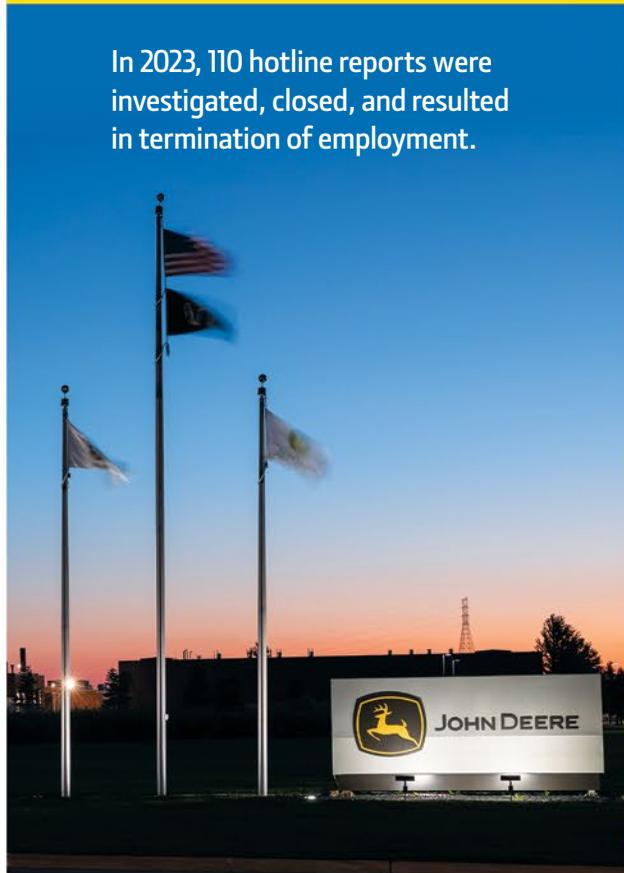
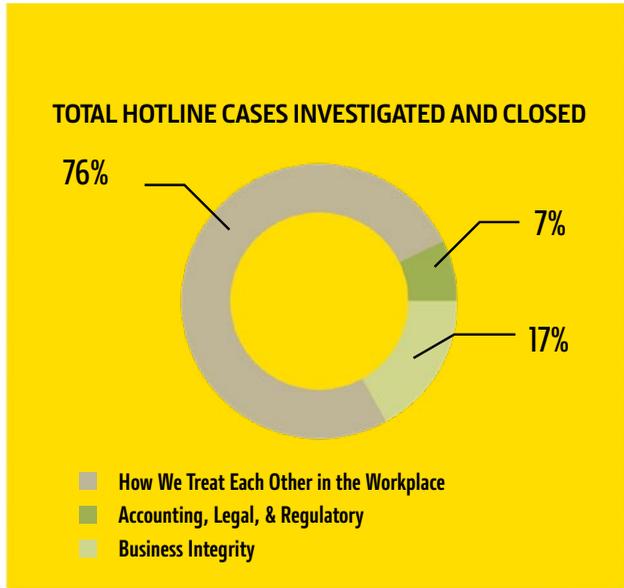
The Center for Global Business Conduct provides continuous training, communications, and best practices throughout our operations, allowing us to sustain our strong ethical culture and help ensure compliance with laws and regulations.

The Code of Business Conduct and our framework of global ethics and compliance policies serve as the foundation for our compliance program and culture. The Supplier Code of Conduct and the Dealer Code of Conduct clarify the expectations we have for suppliers and dealers to conduct business in an ethical, compliant manner.

Deere's compliance training program includes a robust curriculum for newly hired employees, as well as regular, periodic training on a rotating list of topics for all employees. Training topics are defined by balancing data from our compliance program and enterprise risk management with legal and regulatory requirements.

For 2023, compliance training included, but was not limited to, the following topics: Code of Business Conduct, anti-bribery/corruption, cybersecurity and phishing, data privacy and protection, and workplace and sexual harassment. Training material is translated into as many as 20 languages and delivered and tracked through an online learning management system. We require all employees to complete training on our Code and, where permitted by law, also require that employees regularly certify compliance with the Code.

Providing our employees with a safe, secure reporting outlet remains a priority, and our compliance hotline is integral to that. Operated by an independent company, the hotline is available to receive confidential reports from anyone within or outside the company. To access country-specific hotline information, employees can



view the posters on display at each company location or visit the John Deere intranet. The John Deere Compliance Hotline website is listed in the Code of Business Conduct, the Dealer Code of Conduct, and the Supplier Code of Conduct.

Looking at the total of investigated and closed reports in 2023, we see that 76% were in the category of how we treat each other in the workplace. This includes concerns of harassment or discrimination, threats or physical violence, employment law or policy violations, and retaliation. 7% of the investigated and closed reports involved allegations of accounting or financial misconduct or legal/regulatory violations. The remaining 17% of investigated and closed reports fall into the general business integrity category, including concerns of the following: theft or misuse of company resources; conflicts of interest; and bribery, corruption, or improper gifts or entertainment.

While we have a mature compliance program, we are always focused on continuous improvement, by making compliance guidance more relevant, risk based, timely, easy to use, and employee focused. Examples include:

- | Training materials and resources, with helpful reminders delivered ahead of trade shows and major events.
- | A podcast featuring real-life cases from the hotline or examples of ethical business in action.
- | Enhancements to our hotline process and communications to increase trust and transparency.
- | Code of Business Conduct newly available in an engaging, interactive electronic format.

To expand our reach, Compliance collaborated with Labor Relations to expand the use of email by production employees to deliver additional compliance training to that audience. In countries where email accounts have been set up for all production employees, those employees have completed training on the Code of Business Conduct and on cybersecurity and phishing.



# POLITICAL ENGAGEMENT



At John Deere, we believe that participating in political processes around the world and advocating for public policies that permit us and our customers to compete fairly and freely in the marketplace are vitally important to all our stakeholders. In whatever form it might take, our engagement in the political process is grounded in and guided by our firm commitment to strong corporate governance and global corporate citizenship.

John Deere advocates for good public policy to underscore its responsibility as a corporate citizen to participate in our communities. We engage in public policies such as trade, agricultural and infrastructure development, and regulations that impact how John Deere operates around the world. We seek to promote policies that provide solutions for food security, rural connectivity, technology innovation, ag mechanization, infrastructure development, renewable fuels and alternative power, and tax and financing access that impacts our customers. As a part of these efforts, we engage with like-minded companies, non-governmental organizations (NGOs), and associations as well as participate in public-private partnerships, to reach global audiences and policymakers.

Examples of recent U.S. advocacy to highlight the benefits of precision agriculture and climate-smart practices associated with renewable fuels include engagement in California’s Low Carbon Fuel Standard, the U.S. Federal Renewable Fuel Standard, the Inflation Reduction Act, and the U.S. Farm Bill. On a global level, recent examples of advocacy include sustainable agricultural mechanization, expanding rural connectivity in Brazil, carbon farming and alternative fuels in the EU, and engagement in geospatial data discussions in India.

# JOHN DEERE POLICIES

Because we believe corporate governance is integral to creating long-term shareholder value, our board of directors has adopted companywide corporate governance policies that are periodically reviewed and revised to ensure that they reflect the board’s corporate governance objectives. These policies, along with the company’s Code of Business Conduct and other work-specific policies, establish the framework by which we seek to conduct ourselves and our global business in compliance with the law and by which we affirm our commitment to integrity in everything we do.

## CORPORATE GOVERNANCE POLICIES

These policies establish the guiding principles for John Deere corporate governance, including board composition and functions, meetings, committees, compensation, management evaluation, and succession planning.

## CODE OF ETHICS

This code establishes ethical standards applicable to directors, employees, and officers in satisfaction of applicable laws and regulations and the New York Stock Exchange.

## CODE OF BUSINESS CONDUCT

This code provides specific guidance to employees and outlines how we can and must uphold and strengthen the standards of honor and integrity that have defined our company since our founding.

## DEALER CODE OF CONDUCT

This code expects that dealers conduct business with a high degree of integrity and in a socially and environmentally responsible manner.

## ENVIRONMENT, HEALTH, AND SAFETY POLICY

With a focus on continuous improvement, this policy provides that we conduct our business in a manner that protects our customers, employees, communities, suppliers, and the environment.

## GLOBAL CONFLICT MINERALS POLICY

This policy sets forth our commitment to conducting worldwide business operations in a manner that complies with applicable laws and regulations regarding conflict minerals.

## SUPPLIER CODE OF CONDUCT

This code requires that all our suppliers conduct business with a high degree of integrity and in a socially and environmentally responsible manner.

## SUPPORT OF HUMAN RIGHTS IN OUR BUSINESS PRACTICES

This guidance outlines how John Deere strives to ensure that human rights are upheld for our employees and all workers in our value chain.



[Click here](#) to view more on U.S. political contributions.

## REPORTING SCOPE AND ISSUANCE

Except where specifically noted otherwise, the reporting period of the John Deere 2023 Business Impact Report, including the supplemental information, covers subject matter and data for Deere & Company's fiscal year 2023 (November 2022–October 2023) and is limited to the operations owned and/or operated by Deere & Company. References to John Deere, our, we, or the Company mean Deere & Company and its subsidiaries, unless the content indicates otherwise. Incorporation of acquisitions in Sustainability Metrics is at the discretion of the business and is dependent on level of materiality. Materiality, in this regard, is not being used as that term is used under the securities or other laws of the U.S. or any other jurisdiction, or as they are used in the context of financial statements and financial reporting. This report including the supplemental information was published on January 17, 2024.

## FORWARD-LOOKING STATEMENTS

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995: Statements in this report that relate to future events, expectations, and trends involve factors that are subject to change and risks and uncertainties that could cause actual results to differ materially. These risks and uncertainties are difficult to predict and often are outside of the control of the company.

When used in this report, including the supplemental information, the words "may," "could," "anticipate," "target," "plan," "continue," "goal," "commit," "achieve," "project," "intend," "estimate," "believe," "expect," and similar

expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such words. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our present expectations or anticipated results. Forward-looking statements are neither historical facts nor assurances of future performance.

Instead, they are based only on the company's current beliefs, expectations, and assumptions regarding the future of its business, strategic objectives, projections, anticipated economic changes and trends, and other conditions. Forward-looking statements in this report may include, but are not limited to, financial projections, estimates of addressable market size; statements regarding the company's operational strategies; equipment designs that optimize performance outcomes for customers; efforts regarding energy, water, and emissions; and the development of mechanisms for tracking sustainability metrics. Important factors that could cause the company's actual results to differ materially from those indicated in the forward-looking statements include, among others, the following: (i) compliance with and changes to global and regional environmental, health, safety, and human rights laws, including emissions and noise regulations, and other ethical business practices; (ii) compliance with and changes to greenhouse gas emissions and other standards related to climate change; (iii) production, design, and technological innovations and difficulties, including capacity and supply constraints and prices; (iv) availability and price of raw materials, components, and whole goods; (v) attracting, developing, engaging, and retaining qualified employees; (vi) weather conditions and natural calamities; (vii) availability of enabling technologies, including GPS and radio-frequency spectrums; (viii) network security breaches and disruptions; (ix) compliance with privacy and data-protection laws and regulations; (x) global and regional trade laws, regulations, and policies; (xi) governmental banking, monetary, and fiscal policies; (xii) global tax laws; (xiii) demand for food and bioenergy impacting farm commodity pricing and demand for the

company's products; (xiv) global political, economic, and social events and uncertainty; (xv) competitors' actions and competitive pressures; (xvi) adapting products to customer preferences around the world; (xvii) infringement of the company's intellectual property; (xviii) economic conditions weakening demand and/or limiting access to funding and higher funding costs; (xix) ability to realize the anticipated benefits of our business strategies including acquisitions, joint ventures, divestitures, or new product or efficiency initiatives; and (xx) general global macroeconomic conditions, including but not limited to inflation, slower growth or recession, higher interest rates, and currency fluctuations. The company, except as required by law, undertakes no obligation to update or revise any forward-looking statements, whether as a result of new developments or otherwise. The forward-looking statements speak only as of the date of this report, and undue reliance should not be placed on these statements. Goals, targets, intentions, ambitions, or expectations described in this report, including the Leap Ambitions, are aspirational and subject to change and are not guarantees or promises that all goals, targets, intentions, ambitions, or expectations will be met. The United Nations Sustainable Development Goals (UNSDGs) are also aspirational in nature. The analysis involved in determining whether and how certain initiatives may contribute to the UNSDGs is inherently subjective and dependent on a number of factors. There can be no assurance that reasonable parties will agree on a decision as to whether certain projects, initiatives, investments, or other aspects of our business contribute to a particular UNSDG. Accordingly, investors should not place undue reliance on Deere's application of the UNSDGs, as such application is subject to change at any time and in Deere's sole discretion. Similarly, there can be no assurance that our sustainability or ESG policies and procedures as described in this report will continue; such policies and procedures could change, even materially. We are permitted to determine in our discretion that it is not feasible or practical to implement or complete certain of our sustainability or ESG initiatives, policies, and procedures based on cost, timing, or other considerations. Further, the receipt of any awards by Deere is no assurance

that Deere's business objectives, including its LEAP Ambitions or other sustainability objectives, have been achieved or successful.

Certain information contained herein has been obtained from third parties, and in certain cases has not been updated through the date hereof. We have not independently verified the data from these third-party sources in every instance and make no representation with regard to the verification of third-party data, unless explicitly otherwise indicated. While these third-party sources are believed to be reliable, we make no representation or warranty, express or implied, with respect to the accuracy, fairness, reasonableness, or completeness of any of the information contained herein, and we expressly disclaim any responsibility or liability therefor. The information contained herein is only as current as the date indicated and may be superseded by subsequent market events or for other reasons. Deere is not under any obligation to update or keep current the information contained herein. Statistics and metrics relating to ESG matters are estimates and may be based on assumptions (which may prove inaccurate) or developing standards (including internal Deere standards and policies). This report may contain links and references to other Internet sites. Such links or references are not endorsements of any products or services in such sites, and no information in such site has been endorsed or approved by the company. The inclusion of information in this report should not be construed as a characterization regarding the materiality or financial impact of that information. Further information concerning the company and its businesses, including factors that could materially affect the company's financial results, is included in the company's filings with the Securities and Exchange Commission (SEC) (including, but not limited to, the factors discussed in Item 1A, Risk Factors of the company's most recent Annual Report on Form 10-K, and quarterly reports on Form 10-Q).

# 2023 AWARDS

**Fortune's**  
*Most Admired*

**Ethisphere**  
*World's Most Ethical Companies*

**Points of Light**  
*Civic 50*

**Axios Harris Poll**  
*Ranked #3 for Brand Reputation*

**Fortune ReturnOnLeadership (ROL100)**  
*Ranked #6 out of the top 100 Fortune 500 companies*

**TIME100**  
*Most Influential Companies*

**Barron's**  
*Top CEO*

**TIME**  
*World's Best Companies*

**National Association of Software Services & Companies (NASSCOM)**

**John Deere Operations Center™ Named CES® 2024 Innovation Awards**  
*Honoree in Sustainability, Eco-Design, and Smart-Energy*