



JOHN DEERE

2020

Sustainability Report

WE RUN

SO LIFE

CAN

LEAP

FORWARD

# 2020 Sustainability Report

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# THE YEAR IN Highlights



## GLOBAL FOOTPRINT

**69,600**  
EMPLOYEES

**16 Countries**  
with Equipment Operations  
Manufacturing Locations

**13 Countries**  
with Parts Distribution Locations

**40** Administrative Offices Globally



## COVID-19

**400K+**

Face Shields  
Manufactured

**85%**

Global Salaried Employees  
Working from Home



## DELIVERING SUSTAINABLE OUTCOMES

**230M+**

Global Engaged Acres

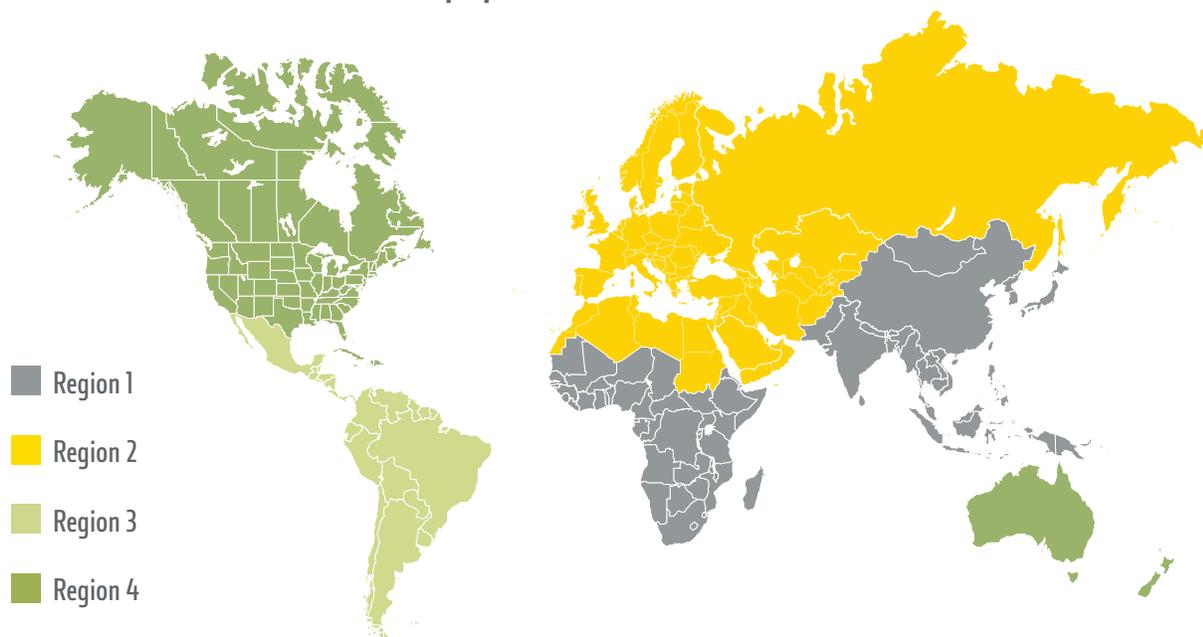
**345K+**

Global Connected Machines

**2X**

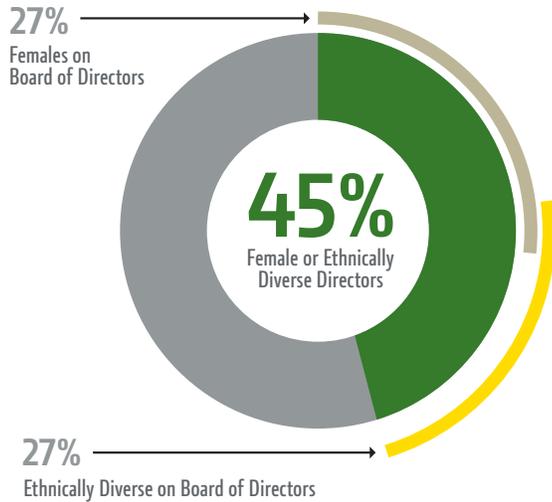
Increase of Incoming Data  
from 2019

John Deere operates nearly **80 MILLION** square feet of facilities throughout the world and our equipment is sold in over **100 COUNTRIES**





## BOARD OF DIRECTORS



**3** Female Directors      **3** Ethnically Diverse Directors  
**2** Board Committees Led by Diverse Directors



## PRODUCT SUSTAINABILITY

**28 MILLION**  
Pounds of Material Recycled  
Through Remanufacturing



## OCCUPATIONAL SAFETY

**86%** Near-Miss Corrective Action Case Closures  
Within 60 Days in the First Year of  
Implementing This New Leading Indicator



## FINANCIALS

Net Sales & Revenue

**\$35.54**  
BILLION

Net Income

**\$2.75**  
BILLION

Shareholder Value Added

**\$1.56** BILLION



## SUSTAINABLE ENERGY USE

**19%**

Reduction in Greenhouse  
Gas Emissions Since 2017

**32%**

of Global Electricity  
Sourced from Renewables



## INCREASE RECYCLING

**78%** of Waste  
Recycled



## PRODUCT INNOVATIONS

**21** New Product Programs  
Rolled Out This Year

**OVER \$4 MILLION**  
Average Daily Research and Development Investment



## COMMUNITY INVESTMENT

**\$36.7 MILLION**  
Invested in Citizenship Efforts

# *We run so life can leap forward.*

While this expression of John Deere's higher purpose is new, its meaning is derived from what we've believed since our very beginning: We must act with urgency today to make the lives of our customers, workforce, and all those we serve better tomorrow.

In 2020, John Deere accelerated our reinvention to focus our future squarely on the futures of our customers. We're directing the power of our enterprise to deliver intelligent, connected machines and applications that will revolutionize our customers' businesses, unlocking economic value across the full lifecycle of our products in ways that are sustainable for all. We're guided by three enablers essential to unlocking greater and more sustainable value for our customers.

- 1** We'll focus our work on understanding every step of our customers' production systems — each input, activity, and output.
- 2** We'll deliver an accessible technology stack, including machinery, hardware, software, connectivity, data platforms, and applications, to improve customer productivity, efficiency, and profitability across their production systems.
- 3** We'll provide our customers with lifecycle solutions in the form of parts, upgrades, and support that not only maintain the value of their investment, but also enhance value throughout their full experience with us.



This year we caught powerful glimpses of our new direction. For instance, John Deere unveiled the X Series Combine – our most advanced combine ever. These marvels average 45 percent more harvesting capacity across all crops, all while using 20 percent less fuel. The X Series stands as a guidepost to what we can accomplish – a richer harvest for our customers and a smaller environmental footprint for us all.

Our work was made more challenging by COVID-19. We persevered by honoring our core values – integrity, quality, commitment, and innovation – and bringing them to life through how we protected our people. We deployed an array of precautions, all because the health and safety of our workforce are our highest priorities. Beyond this, we protected their financial well-being by keeping our operations running. The way we handled COVID-19 stands as another guidepost for what we can accomplish – a more prosperous workforce.

What's more, through our efforts one thing has been made apparent to me – our higher purpose is so bold that to be successful we must welcome everyone to join us in its pursuit. For our customers, this means using our technologies, talents, and resources to eliminate barriers to their livelihoods. For our people, this means creating a culture that embraces courage, accountability, diversity, equity, and the impact that these qualities create. Looking ahead, my personal success in inviting others into our purpose will be my most important contribution to what John Deere can accomplish – a more just society and better world.

While the accomplishments presented in the 2020 Sustainability Report are a source of pride, they don't represent the culmination of our efforts. For us, they are simply markers of what we've accomplished so far. More importantly, they serve as proof of the horizons yet to be reached especially when we remain true to our higher purpose. I am excited to see how far we all can leap.

“WE’RE DIRECTING THE POWER OF OUR ENTERPRISE TO DELIVER INTELLIGENT, CONNECTED MACHINES AND APPLICATIONS THAT WILL REVOLUTIONIZE OUR CUSTOMERS’ BUSINESSES, UNLOCKING ECONOMIC VALUE ACROSS THE FULL LIFECYCLE OF OUR PRODUCTS IN WAYS THAT ARE SUSTAINABLE FOR ALL.”

*John C. May*  
JOHN C. MAY  
Chairman and CEO



To see more of the story,  
visit [news.johndeere.com](https://news.johndeere.com)

## PURPOSE: WHY WE EXIST

# WE RUN SO LIFE CAN LEAP FORWARD

We conduct business essential to life. Running for the people who trust us and the planet that sustains us, we create intelligent connected machines that enable lives to leap forward.

## CORE VALUES: HOW WE RUN

Integrity | Quality | Commitment | Innovation

## STRATEGY: OUR NEXT LEAP

**Production Systems** unlock customer value by making each step of the system more efficient

**Technology Stack** enables our machines to do things smarter, more precisely, and with more productivity

**Lifecycle Solutions** add value throughout the life of the product, maximizing uptime and minimizing cost

**Dealers** sustainably deliver our value proposition and support customers locally

**Capital Allocation** prioritizes and reinvests in high return activities

**Diverse Talent** leads innovation that makes our company and customers more successful

**Sustainability** furthers our stewardship of people and planet

## PERFORMANCE: HOW WE MEASURE

**Customer Value Creation**  
increase customer profitability

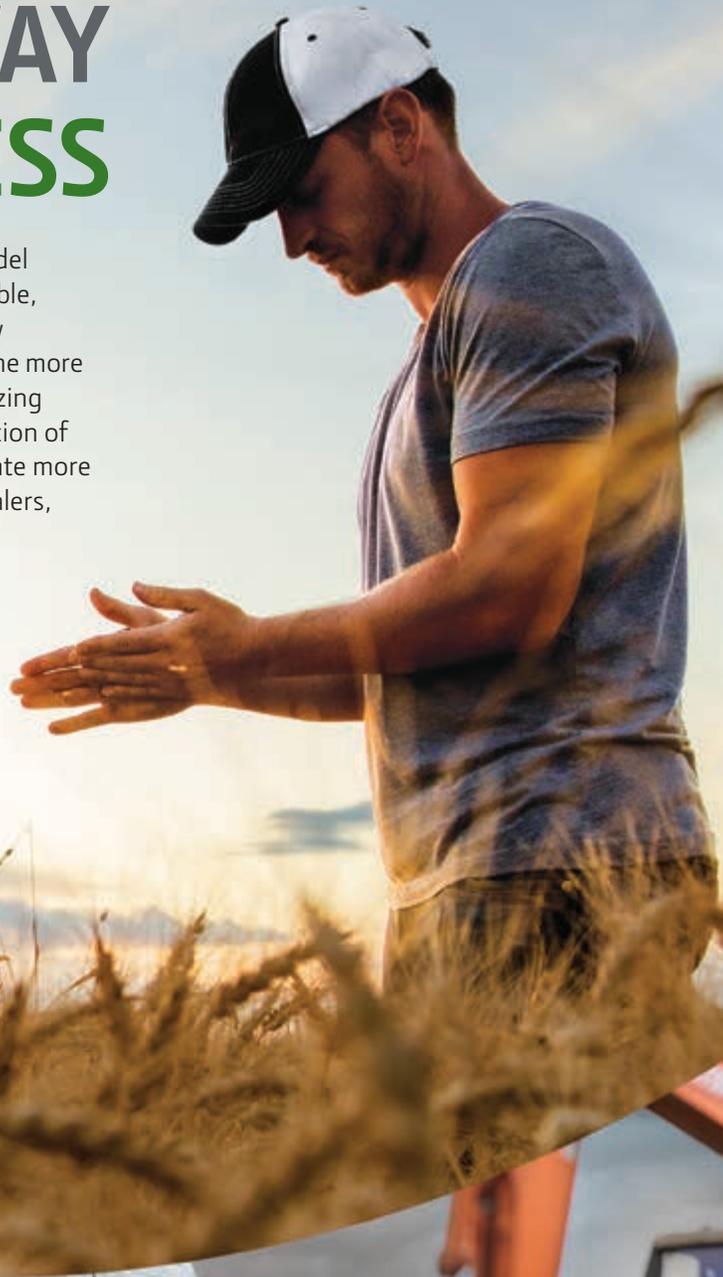
**Customer Preference**  
be the premier choice

**Profitable Growth**  
drive OROS, OROA and SVA

**Employee Engagement**  
inspire and lift up our employees

# A SMARTER WAY TO DO BUSINESS

In 2020, we launched the Smart Industrial Operating Model with the aim of making our company more efficient, nimble, and competitive. Through this model, we will unlock new economic value for our customers so that they can become more profitable and sustainable. We will do this by revolutionizing agriculture and construction through the rapid introduction of new technologies and services. When we do, we will create more sustainable outcomes for our customers, employees, dealers, suppliers, shareholders, and the communities we serve.





## PRODUCTION SYSTEMS

A production system is how our customers get work done. It encompasses the jobs they perform and the decisions they make to grow a crop or complete a project. All of these jobs and decisions form a complete system in which one job or decision influences the next. By dedicating our business to our customers' production systems, we can better identify the greatest opportunities to help them save on expenses, increase productivity, and become more sustainable.

### KEY PRODUCTION SYSTEMS

- Corn & Soy
- Dairy & Livestock
- Roadbuilding
- Small Grains
- High-Value Crops
- Forestry
- Sugar
- Turf & Compact Utility
- Cotton
- Earthmoving



## TECHNOLOGY STACK

Think of our technology stack as the hardware and devices, embedded software, connectivity, data platforms, and applications that build upon our machines to unlock more economic value for our customers. This stack can simplify jobs, strengthen decision-making, and better connect the steps of a production system. Through the stack, our customers will be able to do more with less.



## LIFECYCLE SOLUTIONS

When customers buy from John Deere, they deserve our support for the entire lifecycle of their machine. Our new integrated support strategy will enhance customer value through proactive and reactive support and easy access to parts, value-add services, and performance upgrades, regardless of when a customer purchases our equipment.



## MATERIALITY

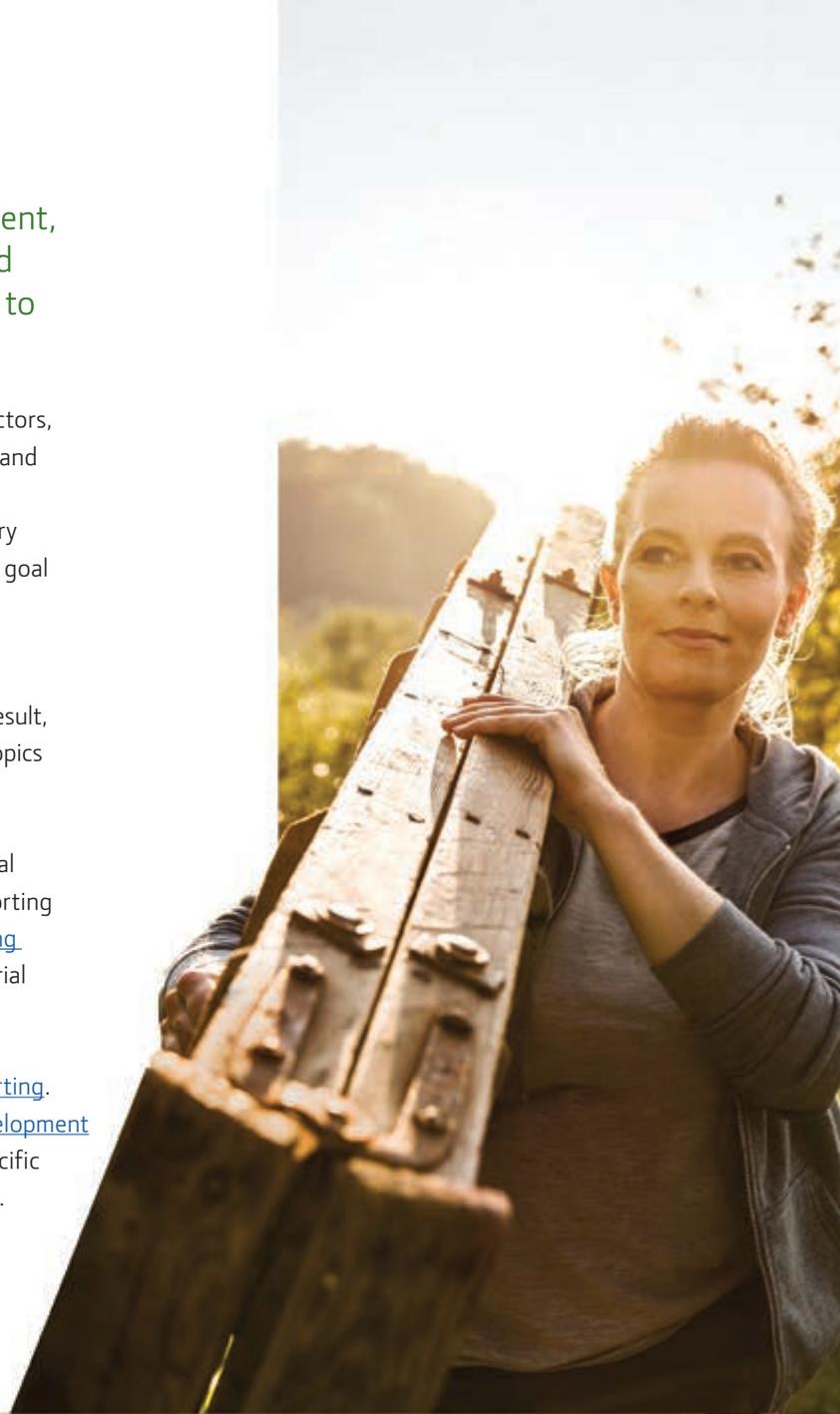
John Deere uses broad stakeholder engagement, internal measurement and accountability, and alignment with existing industry frameworks to inform our sustainability reporting.

With guidance from John Deere's leadership and Board of Directors, we engage our stakeholders on sustainability topics to understand their priorities and earn their trust. We regularly interact with customers, employees, dealers, suppliers, shareholders, industry experts, nonprofit organizations, and many others, all with the goal of delivering more sustainable outcomes for all.

As we launched our Smart Industrial Operating Model in 2020, we also reevaluated our sustainability priorities and goals. As a result, this year's sustainability reporting includes new and expanded topics relevant to our new operating model and its key outcomes.

John Deere aligned our sustainability reporting with our internal Enterprise Risk Management process. We also aligned our reporting to the material issues identified by the [Sustainability Accounting Standards Board \(SASB\)](#), including those specific to the Industrial Goods and Machinery industry.

In addition, our 2020 report continues to incorporate [GRI reporting](#). John Deere supports the [United Nations \(UN\) Sustainable Development Goals \(SDGs\)](#), a set of 17 interconnected goals that provide specific targets to drive the 2030 Agenda for Sustainable Development.



# A MODEL FOR *Sustainability*



For generations, farmers have cared for their land in ways that preserve it. They strive to make the most of every seed and kernel, every drop of nutrient and fuel, and every hour of work to ensure their business remains productive and profitable. They wish to protect their watersheds, preserve the health of their soil, and steward the other environmental resources needed to sustain their crops and their livelihoods.

John Deere's solutions empower farmers to achieve these aspirations. They allow farmers to both do their jobs more precisely and productively through advanced technology as well as make better decisions based on data. We work relentlessly to help them optimize inputs and maximize output.

Our vision is to ensure our customers are the most profitable and sustainable in the world. John Deere precision technologies are delivering the ultimate sustainable outcome — farming operations that are both more profitable as well as less intensive on the soil, water, and air.

For nearly two decades, we've been developing advanced tools and technologies that help farmers achieve this ultimate outcome. And we're just getting started.

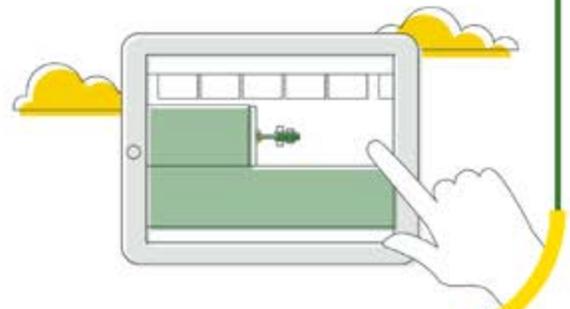
# SUSTAINABILITY THROUGHOUT THE PRODUCTION SYSTEM

The five key steps of the corn and soy crop production systems include Manage, Prepare, Plant, Protect, and Harvest. Throughout this cycle, farmers must adjust to constantly varying conditions to optimize their inputs, investments, and operations, all while mitigating the impact on land, water, and air. With increasingly variable weather, a farmer has extremely narrow windows in which to complete jobs like planting and harvesting — every job is a race against time. John Deere's products help make adjustments in real-time to ensure the most precise, least-intensive application with each pass.

We've highlighted the sustainable outcomes our farmers are experiencing today with six key John Deere technologies. The outcomes reflected here are based on a model farm analysis, which is built to represent a Midwest farming operation with 6,500 acres of row crops, split evenly between corn and soybeans.

## Manage

There is no "off season" for a farmer. Throughout the production cycle, John Deere's connectivity technology and digital tools enable our farmers to monitor their operations, make tactical decisions and devise strategic plans for the following season. John Deere's connectivity solutions and digital tools enable the collection and analysis of data throughout the production cycle.



## Prepare

Data has been analyzed and decisions have been made to enable the crop production cycle to begin. Our farmer must first prepare the field for the new growing season. Weeds steal water and nutrients from growing crops, so starting with a weed-free field is critical. It's also important to ensure that the soil provides optimal growing conditions for the new seeds.

**AUTOTRAC™** technology incorporated on the farmer's John Deere tractor optimizes each pass through the field as the soil is prepared, reducing overlap and ensuring that every inch of ground is only touched as much as needed.

**Outcomes:** Time savings, fuel savings, reduced operator fatigue, reduced herbicide and fertilizer usage, reduced carbon footprint, reduced soil compaction.

**SECTION CONTROL** utilizes GPS technology to turn sections of a John Deere sprayer on and off, enables even application of herbicides and avoids double application, particularly when the machine is making tight turns. When covering areas not requiring nutrients, sections can be completely turned off.

**Outcomes:** Reduced herbicide and fertilizer usage, reduced carbon footprint.

**TRUSET™** tillage technology allows the producer to make automated, precise depth adjustments to tillage implement to respond to the varying residue levels, moisture levels, and soil compaction throughout the field, creating a more consistent and healthy seedbed for crops.

**Outcomes:** Increased yield, fuel savings, reduced carbon footprint.

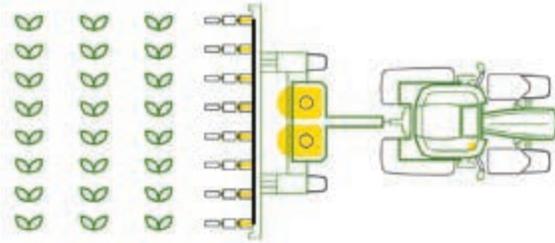
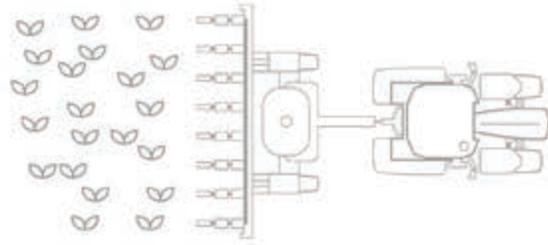
▲  
**AutoTrac™ ensures that every inch of ground is only touched as much as needed.**

## Plant

Once the soil is prepared and weather is optimal, our farmer will begin planting. The farmer must optimize placement of seeds and nutrients, minimize the number of passes through the field, and complete this step within a narrow window of time.

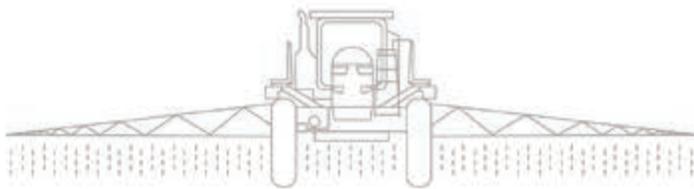
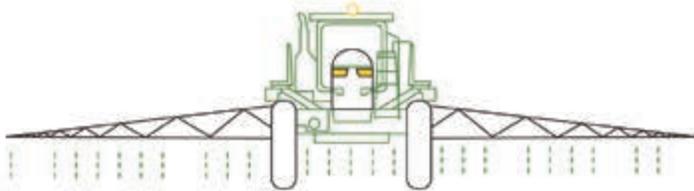
**EXACTEMERGE™** planter technology provides accurate and consistent seed placement, ensuring every single seed has its ideal space, and precise placement into the ground — all while allowing the operator to execute the job at nearly double the speed of other planters. ExactEmerge™ enables faster execution of the job, without sacrificing precise placement and population of seeds to deliver optimal growth conditions. With AutoTrac™ enabled, each planting pass is optimized to further reduce overlap. And the addition of Section Control provides independent control of each planter row, enabling each row to be paused to avoid overlap, double planting, and planting in non-productive ground.

**Outcomes:** Increased yield, time savings, fuel savings, seed savings.



**ExactEmerge™ provides accurate and consistent seed placement at double the speed.**

**ExactApply™ gives producers industry-leading control over protecting their crops with reduced inputs, while still achieving optimal outputs.**



## Protect

As the seeds start to grow and mature, our farmer must continue to monitor and care for their health to ensure they reach their full potential. Ideal outcomes are achieved by minimizing passes through the field and disruption to the soil, while applying nutrients only when and where needed.

**EXACTAPPLY™** spraying technology allows for individual nozzles on a John Deere sprayer to be turned on and off to eliminate overapplication and double application, and completely avoid waterways or non-productive ground. Turn compensation technology varies the application rate across the machine as it turns to minimize over and under-application. When combined with AutoTrac™ and Section Control, ExactApply™ gives producers industry-leading control over protecting their crops, applying less total nutrients to the crops and soil while driving optimal outputs.

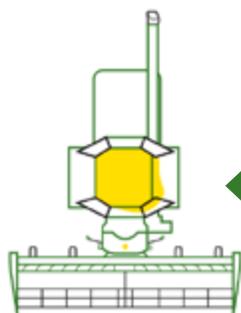
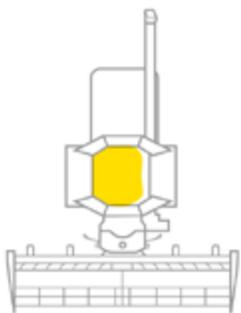
**Outcomes:** Reduced herbicide usage, avoidance of application in waterways, reduced carbon footprint.

## Harvest

The plants have reached their potential, and our farmer must efficiently harvest millions of kernels of corn and soybeans in a short window of time before early winter weather sets in, while mitigating crop losses, efficiently running operations, and protecting the land. Harvesting is a complex job, and many factors — such as hilly terrain and foreign materials getting mixed in with the grain — can impact the ability to collect and derive value from every kernel.

**COMBINE ADVISOR™**, groundbreaking technology available on John Deere combines, incorporates vision technology and machine learning to automatically adjust to changing crop conditions such as varying moisture levels and the presence of foreign materials to mitigate any losses. Active terrain adjustment helps reduce losses while maintaining efficiency on hilly terrain. When combined with AutoTrac, Combine Advisor keeps the combine accurately operating on the row at all times.

**Outcomes:** Increased yields, reduced operator fatigue, fuel savings, time savings, reduced carbon footprint.



**Combine Advisor helps reduce losses while maintaining efficiency on hilly terrain.**

Together, these technologies allow our farmer to optimize the complete production cycle and to do it better next time, ensuring that every drop, every seed, every hour, and every pass counts.

## Repeat Cycle

## DELIVERING SUSTAINABLE OUTCOMES

Over the course of each production cycle, a single John Deere customer farming 6,500 acres utilizing the six technologies highlighted here could realize the following sustainable outcomes:\*



**over 1,600 gallons** of diesel fuel saved



**over 70 bags** of seed corn saved



**over 160 bags** of soybeans saved



**over 1,000 less gallons** of herbicide applied



**over 250,000 less lbs** of fertilizer applied



**over 400,000 kg CO<sub>2</sub>** equivalent emissions avoided\*\*

the equivalent of over 992,000 passenger car miles driven per year\*\*\*

**over \$180,000** of input costs saved — an almost 10 percent reduction of typical input costs

**over \$260,000** of total value delivered to the producer through input savings and increased yield outcome

**\$40 per acre in value add to John Deere customers**

\* Results may vary.

\*\* Majority of savings derived from corn acres.

\*\*\*Source: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>



# THE POWER OF

A RICHER HARVEST WITH A SMALLER FOOTPRINT



We innovate on behalf of humanity and planet. The most powerful combine we've ever made — the X9 — exemplifies how our innovative solutions help bring farmers more precision, efficiency, and profitability to their work. And when farmers can make more with less, the entire world benefits.

The X9 was introduced after years of input by farmers who identified their most important needs in a combine, including what does and doesn't work in their operation. Large-acre farmers have short harvest windows and tight profit margins. They need maximum productivity with minimal losses.

Built for increased harvesting capacity, with more efficient power, better residue management, and loaded with integrated technology, X9 Combines offer large-acre farmers a giant leap forward in harvesting efficiency. It delivers 45 percent more harvesting capacity across all crop types, with no shortage of grain quality — while using 20 percent less fuel per bushel (or ton) harvested. Farmers benefit from greater productivity and profitability while losing less grain and improving fuel efficiency. With less grain lost, everyone gains from greater food supply and food security.

Belts, transmission, residue system, and dual rotors contribute to lower fuel costs. To deliver 45 percent more capacity, the X9 Combine needs only 11 percent more horsepower than an S790. The ProDrive XL transmission delivers 30 percent more torque. The simplified belt-drive system uses larger pulleys and belts to improve hand-off power. And a new residue system consumes less power.

Critical to unlocking the most value for our customers is taking advantage of the technology stack from across our product lines. Thousands of innovations build upon each other to deliver groundbreaking solutions. To give just one example, the high-performance premium chopper has 24 knives operating at 3,000 rpm to ensure residue is quickly incorporated into the ground, releasing valuable nutrients for the next planting season.

Our innovation is driven by our customers, who strive to be more productive and profitable. This innovation effort begins on the factory floor of our world-class manufacturing facilities, including the Harvester Works where our harvesters are built. A Smart Connected Factory strategy is being implemented that will revolutionize manufacturing at more than 60 John Deere factories around the world. It will establish digital threads of product and process information, while seamlessly connecting people, supplies, equipment, and technology. Analytics improve decision making and optimize outcomes.

These capabilities create more dynamic logistics and production planning, improve the visibility and accuracy of materials throughout the global supply chain, and allow real-time customization of assembler instructions. The Smart Connected Factory strategy is an important aspect of sustainability, as our innovations not only allow our customers to leap forward, but our employees as well.



To see more of the story, visit [deere.com/en/harvesting/x-series-combines/](https://www.deere.com/en/harvesting/x-series-combines/)

**We innovate on behalf of humanity and planet.**

# BUILDING A BETTER INFRASTRUCTURE — *and Future*



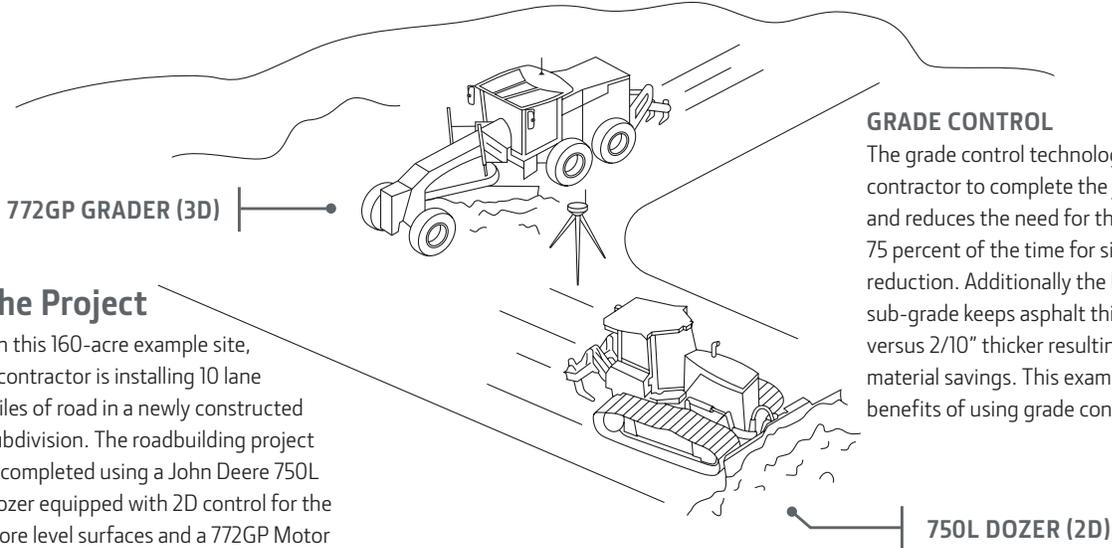
A robust infrastructure is essential to a thriving economy and a more sustainable world. New roads and bridges can cut delivery time for goods, lowering costs for consumers and reducing environmental impact. New airports and seaports connect an economy to the world, making a country's markets more competitive while raising standards of living. Globally, we face a \$15 trillion gap between projected infrastructure investment and what is needed by 2040 for us to prosper. For instance, today the U.S. lags behind other developed countries, ranking 13th in the world in infrastructure quality. Inadequately maintained roads, bridges, and waterways cost billions every year in the U.S. in lost productivity. Delays due to traffic congestion alone cost the U.S. over \$120 billion annually. Twenty percent of all airport delays are due to inadequate infrastructure, costing the economy another \$35 billion a year.\*

Rebuilding our global infrastructure represents an enormous opportunity. John Deere's innovative solutions allow contractors to unlock economic value from earthmoving, roadbuilding, and other large projects because they can do more with limited resources. Through our production system focus and technology stack, we're delivering solutions that increase productivity and efficiency faster than ever. The examples of earthmoving and roadbuilding sites depicted here provide verified examples based on an actual customer's experience of what is possible today.

\*Sources: Council on Foreign Relations, [www.cfr.org](http://www.cfr.org);  
World Economic Forum, [www.weforum.org](http://www.weforum.org)

# EXAMPLE EARTHMOVING SITE

Grade management can provide a huge advantage in the earthmoving business. John Deere's grade control technology controls the cutting edge of the dozer blade, so the operator doesn't have to do all the finesse work when grading a job site. This increases efficiency and accuracy for novices and experienced operators alike, so they can achieve excellent results.



## The Project

On this 160-acre example site, a contractor is installing 10 lane miles of road in a newly constructed subdivision. The roadbuilding project is completed using a John Deere 750L Dozer equipped with 2D control for the more level surfaces and a 772GP Motor Grader equipped with 3D control for contoured surfaces.

## GRADE CONTROL

The grade control technology enables the contractor to complete the job more quickly and reduces the need for the grade checker 75 percent of the time for significant labor reduction. Additionally the higher accuracy sub-grade keeps asphalt thickness on spec versus 2/10" thicker resulting in significant material savings. This example illustrates the benefits of using grade control technology.

## EXTRAORDINARY VALUE OF GRADE CONTROL

When you compare this project to a similar job site using machines without grade control, the savings in money and materials are significant. Operators spend less time so less fuel is burned. Fewer hours are needed to complete the job, saving the contractor quite a bit of time and allowing them to get to the next job sooner. And less asphalt is used because grading is more precise. This not only saves money, it reduces the amount of petroleum and natural gas needed to produce asphalt and bedding material, making the operation overall more sustainable. Plus, less fuel is needed to quarry aggregate and transport materials to the job site.

	750L AND 772GP W/O GRADE CONTROL	750L (2D) & 772GP (3D) WITH GRADE CONTROL	PERCENTAGE CHANGE	1 SITE (10 LANE MILES)	20 SITES/ ANNUALLY
<b>EQUIPMENT &amp; LABOR COST (PER LANE MILE)</b>	\$1,002	\$714	29% Lower		
<b>LABOR COST SAVINGS</b>				\$2,874	\$57,481
<b>ASPHALT COST SAVINGS</b>				\$57,420	\$1.15M
<b>ASPHALT SAVINGS</b>				95 TONS	1900 TONS

\*Results may vary based on job site, material conditions, weather, etc.

**362** METRIC TONS CO<sub>2</sub> EQUIVALENT  
EMISSIONS SAVED = **900,000**  
MILES IN AVERAGE PASSENGER VEHICLE\*\*

\*\*Results based on asphalt savings associated with 20 job sites.

Source: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

# EXAMPLE COLD-RECYCLING ROADBUILDING SITE

Our innovations in cost-effective, environmentally friendly construction methods help ensure the sustainability of global road infrastructure over the long term. The high-performance Wirtgen W 240 CRi and W 380 CRi cold recyclers rehabilitate extra-wide road surfaces in a single pass, efficiently and effectively.

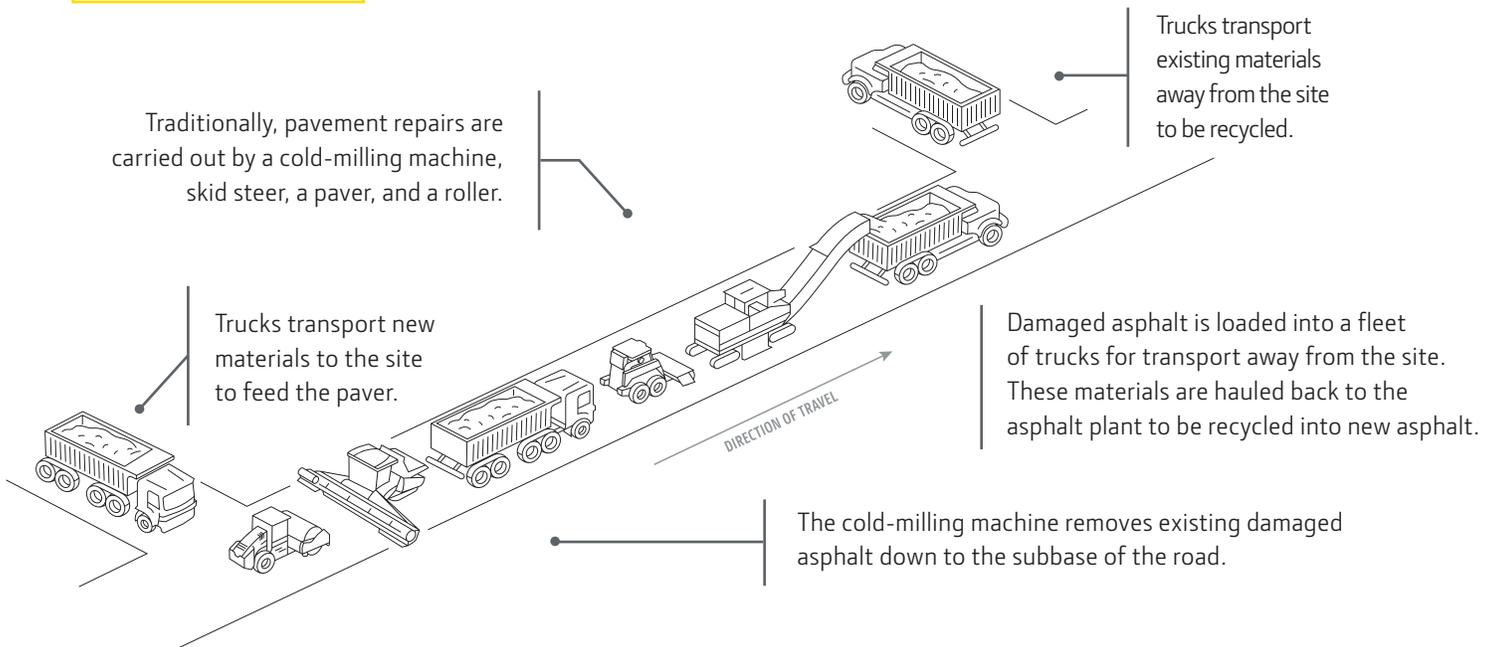
## The Project

On this job site the contractor is rebuilding **40 lane miles** of road.

On this example site, a contractor employs highly efficient cold recycling methods instead of traditional mill and fill methods in place. Cold recycling reutilizes materials that are already in place and paid for, while minimizing the cost and environmental impact of hauling millings to the asphalt plant and new materials from a quarry.

### TRADITIONAL RE-PAVING PROCESS

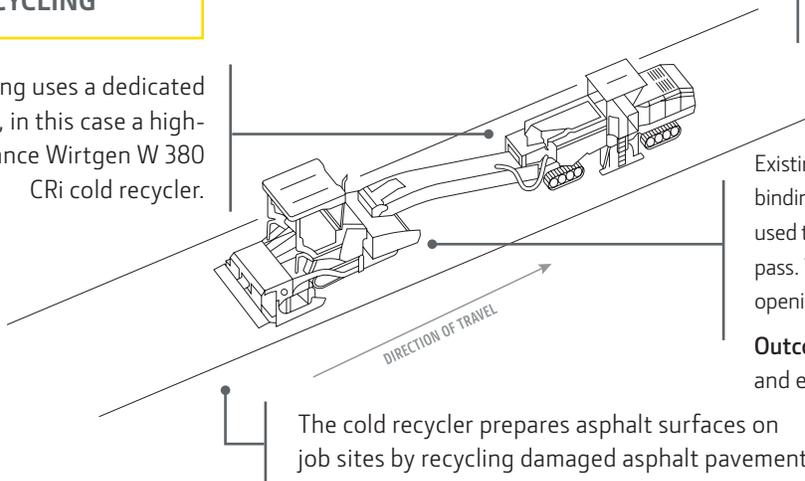
MILLING ▶ TRANSPORT ▶ BATCH MAKING ▶ TRANSPORT ▶ PAVING ▶ COMPACTION



### COLD-IN-PLACE RECYCLING

RECYCLING ▶ PAVING ▶ COMPACTION

Cold recycling uses a dedicated machine, in this case a high-performance Wirtgen W 380 CRi cold recycler.



Damaged asphalt does not need to be hauled away. New material does not need to be quarried and hauled back to the job site.

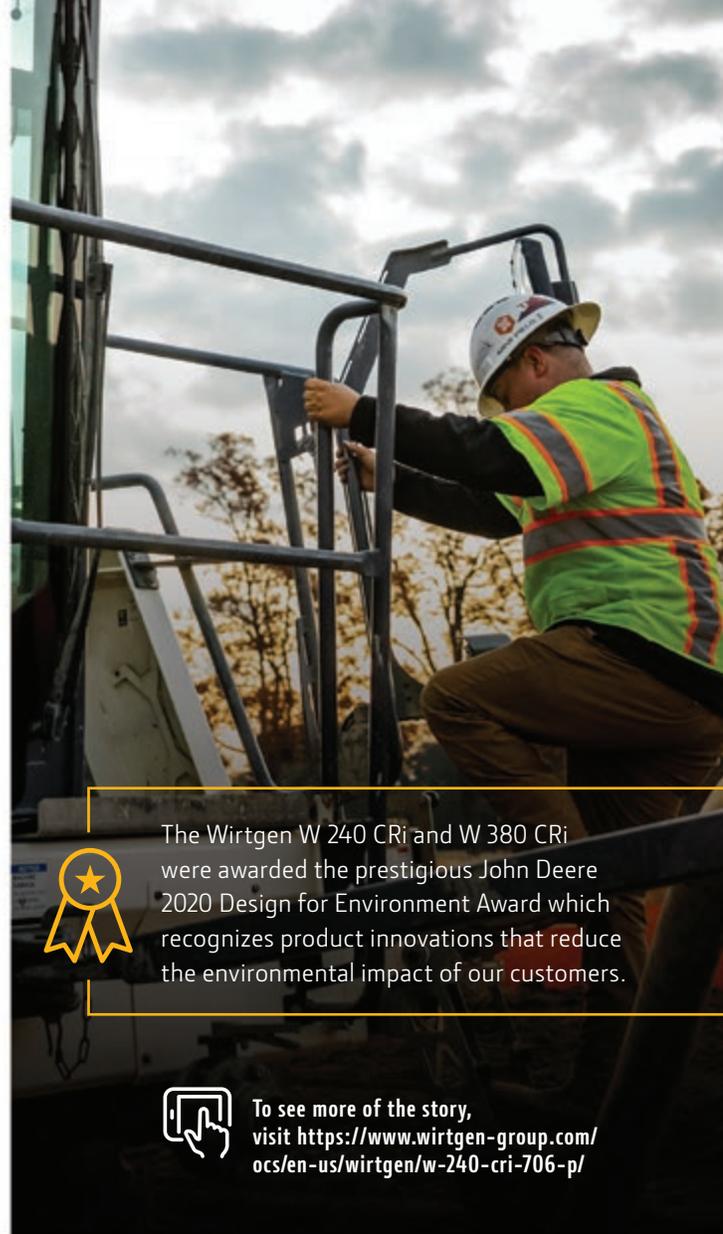
**Outcomes:** Fuel savings, preservation of natural resources, reduced carbon footprint, operator time savings, and reduced lane closures.

# SUSTAINABILITY MEETS PROFITABILITY

Cold-in-place recycling results in more profitability and productivity, with less virgin material required and less old material being sent to the asphalt plant to be recycled into new material. The process is more efficient, allowing the contractor to complete more projects over the course of a year. The result is an annual economic opportunity of millions of dollars while significantly lowering CO<sub>2</sub> equivalent emissions.

	TRADITIONAL METHOD	COLD RECYCLING	PERCENTAGE CHANGE (FROM TRADITIONAL METHOD)
LANE MILES COMPLETED	40	40	
COST (PER LANE MILE)	\$350K	\$68K	81% DECREASE
PROFIT (PER PROJECT)	\$2.1M	\$13.4M	550% INCREASE
JOBS (PER YEAR)	0.5	4	700% INCREASE
ROAD LIFESPAN	7-8 YRS	10-15 YRS	

\*Results may vary based on job site, material conditions, weather, etc.



The Wirtgen W 240 CRi and W 380 CRi were awarded the prestigious John Deere 2020 Design for Environment Award which recognizes product innovations that reduce the environmental impact of our customers.



To see more of the story, visit <https://www.wirtgen-group.com/ocs/en-us/wirtgen/w-240-cri-706-p/>

## \$1.5B IN ECONOMIC OPPORTUNITY

if cold recyclers used on just 1 percent of jobs in U.S.

**1 COLD RECYCLER = 5,000** METRIC TONS OF CO<sub>2</sub> EQUIVALENT EMISSIONS AVOIDED  
 used per job (40 lane miles)      Equivalent to over 12 million passenger miles driven



**90% REDUCTION** in material transported per job



**60% REDUCTION** in CO<sub>2</sub> equivalent emissions per job





coming **TOGETHER** while standing

**A P A R T**



## Keeping the world running

The hard work of our customers and our employees is essential to the lives of all people. They keep the world running by meeting our needs for food, fuel, shelter, and infrastructure. They've faced tough times before. But the COVID-19 pandemic has taught us all no matter how difficult the challenge, we can innovate and overcome. No matter what news another day brings, we can put on a hard hat, go out into the world, and make a difference.

Protecting the safety and well-being of our people is our top priority. By protecting their livelihoods in the face of COVID-19, John Deere strengthened the resiliency of our customers, communities, and all those who depend upon our products and services to overcome the pandemic.

As COVID-19 unfolded, John Deere continued to operate. We took immediate action to safeguard our factory employees. For those not required in factory operations, we offered remote work arrangements and deployed new technologies to strengthen virtual connectivity.

Across our facilities, we enhanced our cleaning and sanitization. We also staggered shifts and restructured our assembly lines to promote social distancing, while providing face shields and additional personal protective equipment (PPE) and other measures. Thermometer checks or thermo scanning have been implemented at several of our factories. Because of these and other steps, John Deere created a safe workplace for its employees, and our operations have been able to continue without significant interruption.

## KEEPING OUR EMPLOYEES SAFE

Necessity is the mother of invention, and the challenges of the pandemic have inspired our global team of engineers to come up with more than 20 innovative safety solutions. These include divider screens for computer workstations, ear-saving mask straps, no-touch door openers, personal-use safety handles for hand carts, and clips that affix face shields to ordinary ballcaps. 3D printing allowed these last two innovations to be produced quickly and inexpensively. John Deere continued to make enough clips for 18,000 ballcaps and is sharing the 3D printing specification online free of charge.

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The John Deere factory in Mannheim, Germany, shut down production for two weeks to create space for social distancing and minimize the risk of infection. A special team defined and implemented 73 projects, including taking contactless temperature measurement, modifying walking routes and breakrooms, and minimizing employee interaction. Before the pandemic, it wasn't uncommon for workers to work shoulder to shoulder. Now smaller teams are assigned to workstations, allowing highly-trained employees to spread out and handle more tasks.

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To help secure the livelihoods of its factory employees, John Deere provided work flexibility and financial support for employees who struggled to provide childcare. We waived waiting periods for those with pre-existing conditions, so that they could access short-term disability benefits and stay home. We also provided financial awards to recognize and reward factory employees for their dedicated contributions. And we made sure our workforce was aware of mental health resources that could assist them and their loved ones to cope with any stress and anxiety during challenging times.

Our employees, dealers, and customers are adapting, persevering, and overcoming challenges unlike any we have experienced. Here are a few of their stories.



## ENGAGING DEALERS AND TECHNOLOGY IN THE FIGHT AGAINST COVID-19

Since 2017, John Deere and our dealers have used John Deere Connected Support™ to constantly monitor our customers' machines to help reduce costly downtime. Dealers use Expert Alerts based on data collected from thousands of connected machines to proactively address conditions that may otherwise likely lead to downtime. Remote diagnostics and programming allow technicians to resolve issues from a distance without a time-consuming trip to the job site. At a time of social distancing and limited interaction, this capability has become even more critical. In the months following the beginning of the pandemic, we've seen a dramatic increase in the total volume of Connected Support use by dealers to support our customers remotely and proactively.

## SHIELDING THOSE ON THE FRONT LINES

Leveraging both their skills in manufacturing as well as their passion for community service, the team at our Moline Seeding Group factory produced and distributed over 400,000 plastic protective face shields, 134,000 of which were sent to 49 Veterans Health Administration hospitals in 35 U.S. states. In partnership with the John Deere Foundation, several were sent to communities of color that were being disproportionately impacted by COVID-19.

This joint effort between John Deere; the United Automobile, Aerospace, and Agricultural Implement Workers of America (UAW); International Association of Machinists (IAM); Iowa Department of Homeland Security; and the Illinois Manufacturers' Association represented one of many collaborations between John Deere and those in our home communities as we worked together to overcome the pandemic.

**“To me, it’s my patriotic duty to help out our country, especially those on the front lines. I don’t want someone to lose a spouse, a partner, a child, or a parent. I’ll do anything in my power to make sure that doesn’t happen.”**

JERRY MILLER JR., JOHN DEERE SEEDING ASSEMBLY

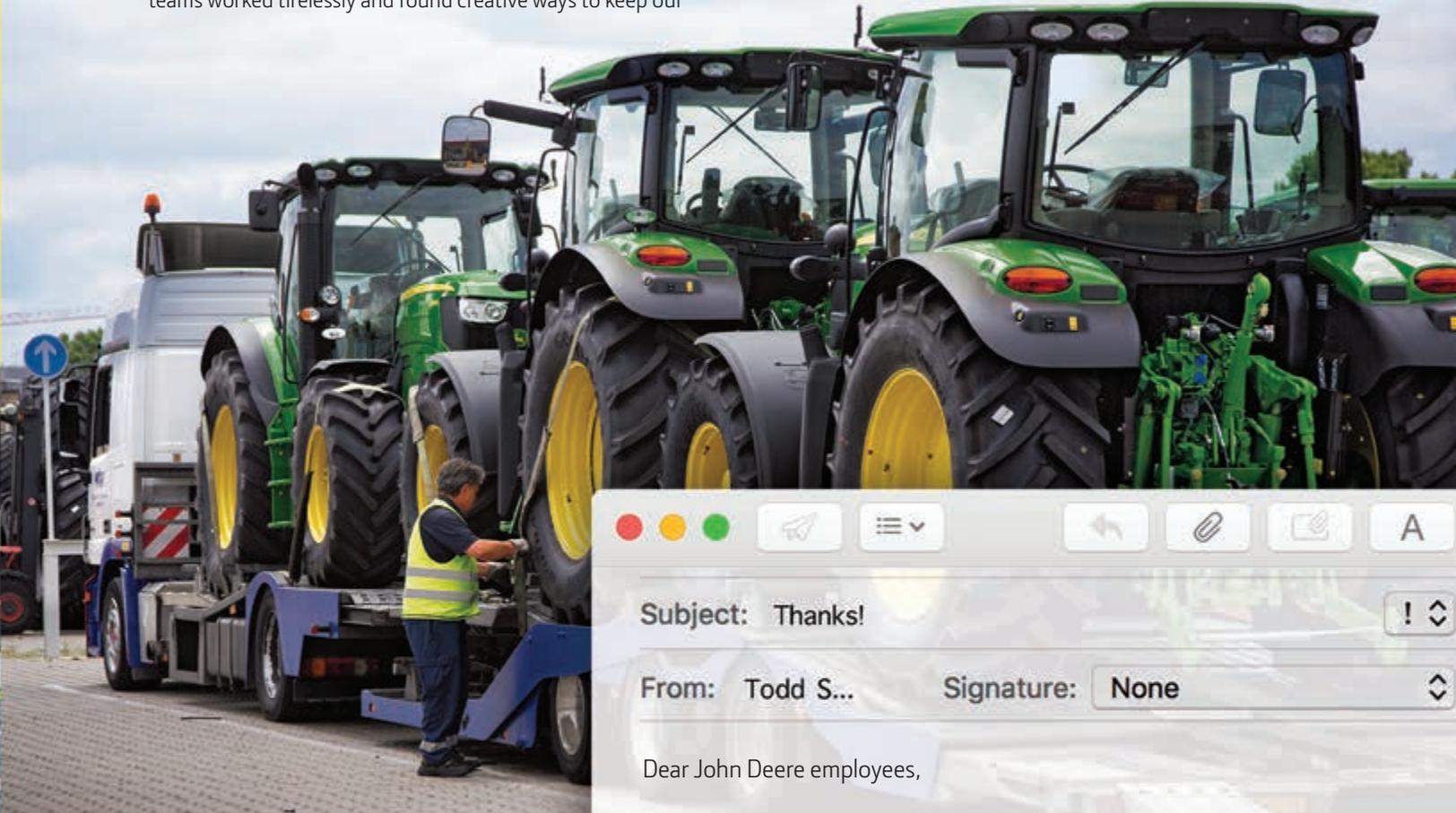


## CRITICAL MACHINES FOR ESSENTIAL WORK

In the midst of COVID-19, it was not enough for John Deere to manufacture its machines. We also had to make sure that the machines we manufactured made it to the customers who depend upon them. This proved to be quite a challenge as countries around the globe imposed lockdowns restricting the shipment of goods.

The John Deere sub-Saharan Africa and Supply Management teams worked tirelessly and found creative ways to keep our

shipments running. For example, when a shipment of 53 tractors sent to a South African customer was turned away at the port of Durban, the team immediately began working with the shipping company and port authority. Through the team's extraordinary efforts, the cargo vessel carrying the tractors was allowed to return to the port. Outside of South Africa, the John Deere team also contributed to an interim export regulation imposed for the Southern African Development Community's 15 countries to allow agricultural equipment and parts to move cross-border during the lockdown.



## CUSTOMER APPRECIATION

In 2020, Todd Stutrud, a farmer near Barton, North Dakota, ordered numerous new John Deere models that would make up the majority of his fleet. When the pandemic struck, he needed to make sure that the factory completed these orders so he could take delivery. Like all farmers he has a very small window of opportunity to complete the task of managing, preparing, planting, protecting, and harvesting weather-dependent crops. Even the smallest delay can negatively affect the acres seeded, fertilizer applied, and acres harvested. Here's an excerpt from a letter he wrote to John Deere employees.

Dear John Deere employees,

I am a very proud John Deere customer. As an employee of John Deere, you manufacture and support the equipment that my family relies on to make a living. This year, especially with the COVID-19 pandemic, I am even more grateful for your hard work. We needed this equipment for the current year's plant, and John Deere and the John Deere employees delivered. I would like you to know that YOU are a vital piece of the process. Your willingness to work and to complete these John Deere orders does not go unnoticed. Here is to the celebration of your important job at John Deere, making high quality machines, and keeping us in the field.

On behalf of the entire Stutrud family, I would like to thank you for everything that YOU do, to make OUR job seamless and successful. I cannot stress to you enough, the importance of the high quality of work you complete, and the high standard you are held to. Thank you, John Deere employees, for your consistency and attention to detail, each and every day!

Sincerely,  
Todd Stutrud, farmer, Barton, North Dakota



# SOCIAL & ECONOMIC JUSTICE MATTERS

At John Deere, we believe that when we strengthen the diversity of our workforce, we improve our ability to innovate. Diversity brings new ideas, better decisions, and stronger connections to the vibrant world within and around us. It's a competitive advantage.

There is no more important role in our company where we embrace diversity and its benefits, than in our factory managers. They lead the people who manufacture and improve the machines upon which our success depends. As importantly, factory managers serve as role models for our workforce and in our communities for who we are and what we stand for.

## PAYING IT FORWARD

There's no place that Rosalind "Roz" Fox, factory manager at John Deere Des Moines Works, would rather be than among the workers and high-tech manufacturing equipment of the 3.5 million-square-foot facility. "Every day, we take hunks of metal and transform them into majestic machines," she says. "It's so fulfilling to see your work roar to life. I'm not out on the line turning wrenches, but I have the privilege of leading teams responsible for that. It's unbelievable."

An industrial engineer by trade, Fox runs the billion-dollar manufacturing center in Des Moines, Iowa. She is joined by many women throughout the organization who are thriving — not just in manufacturing, but other technical fields like Technology, Finance, and Data and Analytics. To further their professional growth, our company has established over 40 employee networks and resource groups dedicated to supporting diverse and common interests. This is just one way John Deere is helping all employees forge a career, from the board room to the factory floor.

Fox is the youngest of six children and grew up in St. Louis, Missouri. "We lived in government-subsidized housing, but I had no idea we were poor," Fox said. "We loved each other very much, and my parents worked very hard to make sure we had lights, gas, and food. They raised us to be very independent, strong-willed, and taught us that we could do anything we set our minds to."

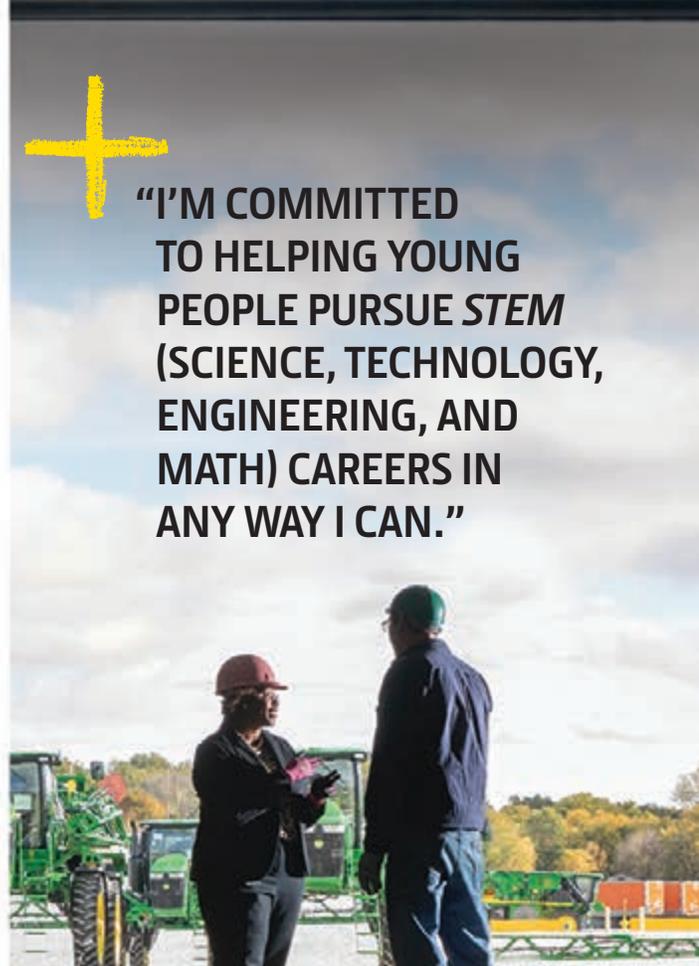
After high school, Fox lacked direction, working part-time stocking shelves at a department store after being fired from a fast-food restaurant. But with her father's support, Fox graduated from the University of

Missouri-Columbia with an electrical engineering degree, then earned her master's in industrial engineering. While working as factory manager for a legendary American automaker, a recruiter offered her an interview with John Deere. "At the automaker, it was cutthroat," she recalls. "Nobody smiled. And all of a sudden, I'm at a place where everyone was so nice and welcoming."

Fox took the job, but still had doubts about staying with John Deere long-term. Then she made a work trip to South Africa, where she visited customers who were cultivating the first scalable crops they'd ever grown because of John Deere products. "When I saw that our work was truly changing people's lives, that was the moment I decided I was going to stay with John Deere," she recalls. "I'll never forget it."

The first Black female factory manager in John Deere history, Fox pays it forward. "I wish I had the opportunity to learn about engineering at an early age," she says. "So we've started an 'introduce a girl to engineering' day. We're also sponsoring a weld program, and we're offering welding scholarships for young adults to work here. I'm committed to helping young people pursue STEM (Science, Technology, Engineering, and Math) careers in any way I can."

Recently, Fox was appointed by Iowa Governor Kim Reynolds to serve on the state's Commission on the Status of African Americans. At John Deere, she's focusing on fostering a more diverse and inclusive company and developing future female leaders. "If I can do it, they can do it," says Fox. "It's not about how you start, it's how you end. If you look at all the struggles I had early — if I can get through that and have some level of success, you absolutely can do it. Don't be afraid. Step up to the challenge."



**"I'M COMMITTED TO HELPING YOUNG PEOPLE PURSUE STEM (SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH) CAREERS IN ANY WAY I CAN."**

**Rosalind "Roz" Fox  
Factory Manager,  
Des Moines Works**

## REDUCING OUR CARBON FOOTPRINT AND MAXIMIZING OUR DIVERSITY

Of the dozen manufacturing facilities Deere operates in the United States, six are led by women, including Jena Holtberg-Benge, General Manager, John Deere Reman. She provides global leadership for our remanufacturing division that employs approximately 650 people and distributes remanufactured John Deere parts worldwide. That includes overseeing production at our remanufacturing facilities in Springfield and Stafford, Missouri, and Edmonton, Alberta, Canada. Holtberg-Benge is a strong believer in the value of remanufacturing to provide quality products to customers, while meeting global sustainability goals – reusing material through remanufacturing.

And she's a big believer in diversity. "We need a shift in thinking about diversity and what it can bring to the company," says Holtberg-Benge. "Our workforce needs to reflect our community. What really motivates me has been our ability to attract an extremely talented diverse workforce."

John Deere Reman sells in over 100 countries globally. "Diversity has really helped us understand our customer base. In Reman, we're seeing significantly improved shareholder value add (SVA) and operating return on operating assets

(OROA). By having a diverse leadership team, John Deere Reman has been able to deliver on financial results, including improved margins."

Holtberg-Benge has been able to achieve these results by taking a less hierarchical approach to leadership. "The old-school factory manager model of telling people what to do can't succeed in a diverse climate. Through our Smart Industrial redesign, we're flattening our organization. This new approach gets everyone engaged in striving toward the same goals."

Holtberg-Benge received the Remanufacturing Industries Council's (RIC) ACE award for its mission to Advocate, Collaborate, and Educate on behalf of the industry. She earned the Collaborate Award for her "strong leadership, enthusiasm, and collaborative spirit" chairing the Remanufacturing Alliance that promotes the industry, according to RIC.



**"THROUGH OUR SMART INDUSTRIAL OPERATING MODEL, WE'RE FLATTENING OUR ORGANIZATION. THIS NEW APPROACH GETS EVERYONE ENGAGED IN STRIVING TOWARD THE SAME GOALS."**

*Jena Holtberg-Benge,  
Manager, John Deere Reman Business*

## DELIVERING RECORD VOLUMES AND A MORE DIVERSE WORKFORCE

Tony Rollin, factory manager, Augusta Works in Georgia, oversees production of John Deere's compact utility tractors and utility tractors. He started in November 2017, after seven years working for John Deere in Waterloo and Des Moines and 15 years in the automotive industry. "I believe in a diverse and collaborative team, and in my career I have had the opportunity to work with diverse high performing teams."

When he joined Augusta Works, Rollin became its first Black factory manager. "Our workforce reflected the community in terms of our number of Black employees, but most were in entry-level positions. I think it is very important that leadership reflects the group they are leading, and I appreciate that John Deere values diversity in the workplace. We made great strides in attracting diverse leadership talent in the first 18 months and it is a privilege to lead this highly collaborative team." During that first year after Rollin started,



Augusta Works had a record year in volume, becoming the highest volume tractor factory within John Deere. That was followed by another record year in 2019, and despite the pandemic, 2020 will also be among the top five years in sales volume.

To manage the high volume, Rollin hired over 500 people during the first year, including employees from other John Deere locations to get a diverse perspective. "We're becoming a very diverse group and working to improve diversity at all levels. As a result, we're seeing improvements in overall profitability, which is a very big win for us. We couldn't have done this without a highly collaborating team with a perspective of diversity."

Rollin is a proud member of John Deere's Black Leadership Forum and Black Employee Resource Group, which support Black employees and educate allies. Following the death of George Floyd and the social unrest that followed, he and other leaders led conversations about this complex issue. He also sits on the Georgia Board of Manufacturers and works with other manufacturers in the community advocating for diversity.

**"I VALUE DIVERSITY NOT BECAUSE I AM BLACK BUT BECAUSE I TRULY VALUE DIVERSE PERSPECTIVES AND AN INCLUSIVE CULTURE."**

*Tony Rollin, Factory Manager, Augusta Works, Georgia*

# Our Commitment

## TO EQUITY STARTS AT THE TOP

John Deere is committed to eliminating the systemic inequities that have prevented generations of Black Americans and communities of color from having fair access to social and economic opportunities. Far too many have never had their chance to leap forward.

John Deere's commitment starts at the very top of our organization. In 2020, our Chairman and Chief Executive Officer, John May, joined the CEOs of the country's largest employers as part of the Business Roundtable to identify critical areas in which the business community must drive meaningful change.



### EMPLOYMENT

Through its support of youth served through organizations like the Thurgood Marshall College Fund, John Deere seeks to enhance the diversity of our workforce. The Thurgood Marshall College Fund is the nation's largest organization exclusively representing publicly supported Historically Black Colleges and Universities (HBCUs) and Predominantly Black Institutions. Over its history, the Thurgood Marshall College Fund has awarded more than \$300 million to its students and member schools.

Since 2014, John Deere has invested over \$1 million in the Thurgood Marshall College Fund. John Deere also proudly supports the Thurgood Marshall College Fund Leadership Institute, a national program intended to develop students' leadership skills and provide students with access to businesses seeking their enormous talents.

Xylan Grant, an internal auditor for John Deere in Olathe, Kansas, is one of 41 people we have hired as an employee or intern through this prestigious institute: "Having the privilege of being in Washington D.C. with some of the top HBCU students in the country, and top companies in the country, and being able to tell my story in a room like that is nothing less than amazing and an honor to be a part of."



### EDUCATION

In 2013, the Business Roundtable challenged its members to help nonprofit organizations that had developed innovative programs that enhance educational outcomes, particularly for disadvantaged youth. One such nonprofit organization was MIND Research Institute, the creators of ST (Spatial-Temporal) Math, a PreK-8 visual instructional program that leverages the brain's innate spatial-temporal reasoning ability to solve mathematical problems. The John Deere Foundation has invested nearly \$1.5 million in ST Math to make it available to more than 25,000 students in Iowa, Illinois, and North Carolina.

## FINANCIAL

More than a century ago, Black farmers in America owned over 16 million acres of land. Today, that number has fallen to 4.7 million acres. While there are many reasons for this decline, one of the most significant is the impact of “heirs’ property.” Without a will, landowner’s property would simply pass to their heirs, hence the term “heirs’ property.”

Many Black landowners have lost their land through costly land or tax disputes. For those who have kept their land, without clear title they remain unable to use their property as collateral to secure loans or credit to further develop their businesses. Upward of 60 percent of Black farmers currently operate on heirs’ property.

To eliminate the barriers created by heirs’ property, in 2020 John Deere joined with the National Black Growers Council and the Thurgood Marshall College Fund, to form a new coalition entitled LEAP (Legislation, Education, Advocacy, and Production Systems) in partnership with the Federation of Southern Cooperatives. One of the coalition’s primary goals is to partner with organizations like the Federation and others to bring awareness, additional resources and legal resources to help farmers gain clear title to their land.



Farmer Jon Jackson raises public awareness on the plight of small farmers and is the founder and operator of Comfort Farms in Milledgeville, Georgia. He started his farm to help fellow U.S. military veterans recover from Post-Traumatic Stress Disorder and other combat-related injuries.

(Opposite Page) ST Math is one of several John Deere Foundation-funded programs dedicated to elementary school youth, including FIRST LEGO League and Project Lead The Way Launch.

## HOUSING

Safe and affordable housing provides more than just a roof over a family’s head. Housing allows families to accumulate wealth, provides stability that strengthens educational success for children, and protects the health of those who live in the home.

Because of the proven impact of safe and affordable housing, the John Deere Foundation invested more than \$500,000 in 2020 in Habitat for Humanity projects throughout its home communities. In its headquarters community, John Deere supported Habitat for Humanity Quad Cities with funding for new construction as well as emergency support for homeowners struggling through COVID-19. Over its history, nearly 84 percent of the homes built by Habitat for Humanity Quad Cities are owned by families of color.

John Deere employees also add their time, talent, and sweat to make safe and affordable housing more accessible to our neighbors. John Deere employees provided nearly 14,500 hours of volunteerism on Habitat for Humanity projects in 2019 and 2020. This produced an additional \$250,000 in support for the Habitat for Humanity network through the John Deere Foundation’s Dollars for Doers program.



# LIVES AND LIVELIHOODS in the Balance

## Nourishing Nigeria by supporting smallholder farmers

At the heart of the global food insecurity caused by COVID-19 are hundreds of millions of smallholder farmers in Africa and Asia. These farmers typically work with their families to grow crops on land no more than two hectares in size. In normal times, these farmers grow upward of 80 percent of food consumed in these regions. In tough times like now, they struggle to feed themselves and their loved ones, much less get their crops to market.

Because of the vital importance and vulnerability of the world's smallholder farmers, John Deere invests in programs like Rayuwa in northern Nigeria. Rayuwa means "life" and "livelihood" in the Hausa language. Working with PYXERA Global, John Deere identified Nigeria as a place where we could make an immediate and sustained difference on the livelihoods of smallholder farmers and those they sustain.

Today, Nigeria is home to more than 200 million people. Nigeria is also one of the youngest countries in the world with more than 40 percent of its population under 15 years of age. In 30 years, Nigeria is projected to double in size. In order for Nigeria to grow, so must its farmers.

Much like John Deere builds a stack of technologies to unlock value for our customers, we also build a stack of programs to enrich the lives of those we serve through our citizenship. In Rayuwa, we've stacked agronomic training, youth education, and volunteerism. Together, these programs create the opportunity for more profitable farmers in the near term, more prosperous farm families in the near term, and a greater connection to our higher purpose for our employees.



“COVID-19 is expected to worsen the overall prospects for food security and nutrition. Pockets of food insecurity may appear in countries and population groups that were not traditionally affected. A preliminary assessment suggests the pandemic may add between 83 and 132 million people to the total number of undernourished in the world in 2020.”

Source: FAO, IFAD, UNICEF, WFP and WHO. 2020. The State of Food Security and Nutrition in the World 2020.



## FARMING AS A PATH TO PROSPERITY

Rayuwa's first objective is to increase farmer profitability. Working daily with 2,500 farmers in 11 villages, Rayuwa staff established test plots to inspire and engage them. Rayuwa staff shared new agricultural practices, including planting techniques, fertilization, and crop protection. One of the tests also involved hybrid seeds, which improved yields in some cases by nearly 200 percent.

For the 2020 planting season, Rayuwa helped farmers like Mallam Surajo access credit to purchase these kinds of improved inputs. "Even though things became so difficult during the pandemic, Rayuwa helped us arrange purchases of quality fertilizers, improved seeds, and agrochemicals on credit with a bank guarantee," says Surajo. Despite surging extreme poverty throughout much of Nigeria, Rayuwa's farmers increased their total earnings by nearly \$1.3 million in 2020.

◀ "I am now able to cultivate more of my land and get very good crop yields because of the work of the Rayuwa team," says farmer Mallam Surajo. "Before last year's planting in 2019, they trained us in better ways of farming including how to plant seeds and how to apply fertilizers, and at harvest we saw how well these new practices improved yield."

## THE NUMBER OF UNDERNOURISHED PEOPLE IN THE WORLD CONTINUED TO INCREASE IN 2019.





## SECURING FARMING'S FUTURE

Rayuwa's second objective is to improve the educational attainment of 4,000 village youth. Access to high-quality education inspires profitable farmers to send their children to school. Empowered by a good education, these children can become even better farmers when they grow up and enter the family business. As a result of Rayuwa's innovative education programs, including a home-based model developed in the midst of COVID-19, youth earning top scores in letter and number recognition increased by 60 percent and 77 percent respectively, with a projected increase in lifetime earnings through better education topping \$1.9 million.

“Rayuwa has brought a lot of improvement in my children's education,” says Ibrahim Isiyaku. “Our teachers have benefited from the Rayuwa team and it reflects in what we now see in our children. Reading has improved so much, and they are also learning to speak and read simple English.”

Teaching even continued during the pandemic. The Rayuwa team provided Community Education Workers in the village with mobile phones so they could remain in contact with the Rayuwa education experts. This enabled them to continue providing limited home-based lessons to village children. “COVID-19 has had a lot of negative impacts, but here we count our blessings,” notes Ibrahim. “We are grateful that none of Rayuwa's support to our farms and our children fully stopped during the lockdown.”

## MAKING IT PERSONAL

Rayuwa's third objective is to engage John Deere volunteers. In October 2019, a group of John Deere volunteers traveled to Rayuwa to help in the program's launch. The impact of this experience for John Deere's volunteers is best summed up by Jean Elloh, Divisional Sales Manager:

"For me, it was a privilege to have been part of the Rayuwa volunteer experience. Beyond contributing toward a project that aims to transform lives, from a personal standpoint, the experience reminded me of what I will call 'my unique journey.' Hearing the plights of the families in communities we visited took me back into time. I could identify with all the challenges the communities recounted.

The volunteer program afforded me the opportunity to contribute to improving livelihoods, to connect with nature through maize and rice harvesting experiences, and to bond with fellow volunteers, including the on-ground Rayuwa project team as well as the PYXERA Global team. It's an awesome feeling to belong to a company that is committed to farmers regardless of their backgrounds."





**ENVIRONMENTAL**

# LOWERING IMPACTS with Innovation

At John Deere, we rise to the challenge of what others might deem the most difficult tasks. It is our pursuit of new technologies, including specifically electrification, that holds the promise of revolutionizing agriculture and construction.

We see electrification as a critical technology for enabling two key accelerations on our technology journey: (1) providing a more efficient and stable power source to implements, and (2) enabling the operation of the precision components on our machines. For example, precision components on our industry-leading ExactEmerge™ planters are enabled by electrification. Each row unit of our ExactEmerge planter is equipped with dual electric drive motors, a critical component of enabling optimized seed placement while allowing our customers to continue to operate at high speeds.

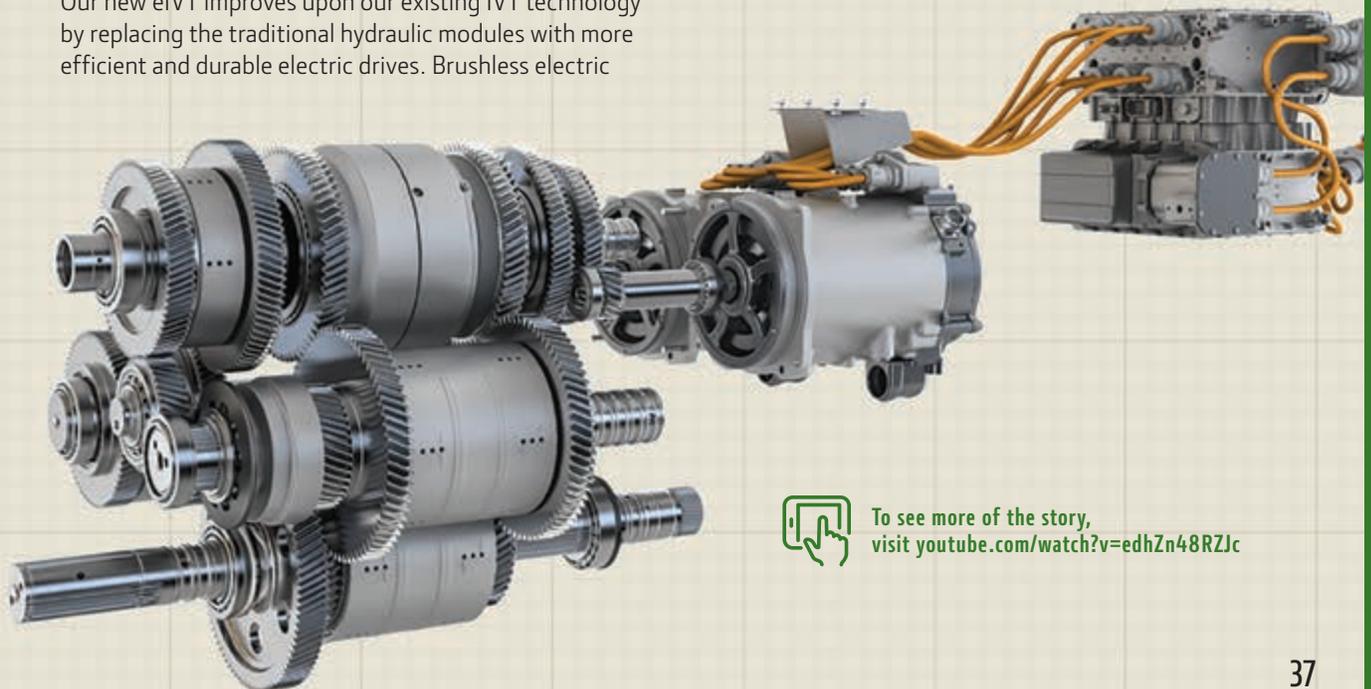
Similarly, this year we announced a significant advancement in our use of electrification as a power management source through the release of our revolutionary eIVT (electro-mechanical infinitely variable transmission) technology, also known as eAutoPowr, which delivers more fuel efficiency and added off-board power from our tractors. Our previous version of IVT technology, introduced in 2001, utilized a hydraulic-mechanical transmission, which had long been considered state of the art technology. Until now.

Our new eIVT improves upon our existing IVT technology by replacing the traditional hydraulic modules with more efficient and durable electric drives. Brushless electric

motors and solid-state power electronics increase reliability. Plus eIVT, with its inherent electrification, enables both on- and off-board tractor and implement electrification, so implements do not need their own power electronics. Due to its efficiency in delivering power to implements, the eIVT is expected to deliver greater operating efficiency than the hydraulic IVT.

The eIVT will be available as an option on our completely new and industry-first 8RX four-track tractors. The track system on the 8RX tractors provides a larger contact area with the soil, thus reducing ground pressure and slippage. Layering eIVT technology onto our 8RX tractor provides the capability for a more consistent and more efficient power source by using electrification to provide additional traction for the tractor as well as implements. Taken together, the reduced soil compaction and disturbance from the 8RX track system, and the efficiency and power from the eIVT, will offer a more sustainable solution — a lighter footprint on the soil and reduced fuel usage — to executing the various production steps, while at the same time adding productivity gains.

The eIVT transmission is so revolutionary that it was the only product to receive the coveted Gold Medal Innovation Award at the 2019 Agritechnica Show, where it was unveiled.



To see more of the story,  
visit [youtube.com/watch?v=edhZn48RZJc](https://youtube.com/watch?v=edhZn48RZJc)

# PRODUCT SUSTAINABILITY

Our 2022 Product Sustainability goal includes a goal to reduce the environmental impact, including CO<sub>2</sub> equivalent emissions, of 90 percent of our new product programs with a baseline of 2017. In 2019, 53 percent of our new product programs had lower environmental impacts. That number increased to 67 percent in 2020.



FOR A FULL LIST OF 2022 SUSTAINABILITY GOALS  
**SEE PAGE 67**

Our products, services and solutions are designed to increase our customers' efficiency and productivity. By truly understanding our customers' needs and incorporating innovative technology, we're able to offer machines and technology solutions that are not only more productive and efficient, but also minimize impact on the environment. "Product Sustainability," as we refer to it, is one of the best ways to offer lasting value to our customers, our employees, our business, and our world.

Every day, John Deere invests approximately \$4 million in research and development, with a growing emphasis on innovating productive, precise, and reliable automated machines that actively learn and adapt with our customers.

## DESIGN FOR ENVIRONMENT

Our Design for Environment process considers all environmental aspects in the development of our products through the entire life cycle, including energy and supply chain impact. The process improves product performance by minimizing the environmental impact, for example, through better fuel economy or remanufacturing opportunities.



Through our Design for Environment process, we improve productivity, enhance fuel efficiency, reduce material usage, increase use of more environmentally friendly materials, and design for remanufacturing. For example, John Deere's products use various recyclable, renewable and recycled materials that provide many benefits, including weight reduction, which, in turn, can reduce fuel consumption and/or increase payloads or capacity. Plastics can improve durability in exteriors, fuel consumption, and corrosion and wear applications while reducing the cost of components as well as reducing environmental impact by eliminating paint through molded-in color.

John Deere continues to partner with external organizations and governments to further develop more recyclable, renewable, and recycled materials. John Deere is a member of the Center for Bioplastics and Biocomposites (CB2). CB2 is a National Science Foundation Industry & University Cooperative Research Center that focuses on developing high-value biobased products from agricultural and forestry feedstocks. Through this industry and academia partnership, we are striving to advance more sustainable materials for use in our products. John Deere is also a member of the PLASTICS Industry Association working with the full supply chain to drive sustainability through communications, advocacy, and industry projects.

**EXAMPLES OF SUSTAINABLE MATERIALS INCLUDE:**

- **Recycled Bottles:** Headliners in the Gator cab (XUV R-series released in 2018) contain PET (polyethylene terephthalate), sourced from recycled bottles.
- **Polypropylene Glass and Nylon:** The front grille skeletons used in our riding lawn tractor product line are constructed with a post-industrial PP (polypropylene) glass-filled material, and the hood hinge is built from an industrial reprocessed nylon material.
- **Soy:** Soy-based foam seats that were introduced in 2020 for the new 8 Series Tractors and the new X9 Combine.

**LIFE CYCLE ASSESSMENT**

To bring Design for Environment to life, we use a Life Cycle Assessment (LCA) methodology to measure and quantify the environmental footprint for a product during its entire life cycle. We assess all phases of a product's life, from raw materials and manufacturing to disposal at end-of-life, all while quantifying the impact. This establishes a baseline from which to improve and helps engineers design new products that increase efficiency through informed decision making. John Deere is a member of the American Center for Life Cycle Assessment (ACLCA), the premier LCA conference in the US, and serves on the Industry Committee for ACLCA.

Usage is the predominant phase in product-level LCA because of the environmental impact of long product life and fuel burn. A design challenge might be, for example, how to do more work while burning the same or less fuel. To give a real-world example illustrating our efforts to lead environmental stewardship, over the past decade, integrating electrified components into our equipment moved from theory to our development labs and assembly lines. This technology helps improve fuel economy and reduce greenhouse gas (GHG) emissions.

**LIFE CYCLE ASSESSMENT PHASE CONSIDERATIONS**

- **Raw Materials & Manufacturing:** Using environmentally friendly resources, including renewable, recycled, and remanufactured; assembling and shipping with greater efficiency and less consumption
- **Maintenance:** Increasing wear life and maintenance intervals
- **Usage:** Maximizing product fuel efficiency, productivity, and other key operating factors
- **End of Life:** Designing products for longevity and recyclability at the end of useful life



# MINIMIZING SOIL IMPACT, MAXIMIZING GLOBAL IMPACT

We developed the 8RX Tractor to address key customer pain points — optimizing soil protection and preserving soil quality without sacrificing efficiency. The tractor's four tracks have more surface area and a stronger grip than a wheel or two-track tractor to prevent slipping. The tractor design enables farmers to cover a 40 percent larger area while reducing the impact on the soil by 30 percent. This means less soil compaction, which can deter plant establishment and growth, and reduced water run-off and erosion, allowing soil to retain more air, water, and nutrients and make those available to plants.

Our 8RX is also designed to help farmers do their job more precisely and productively despite an increasingly shrinking pool of skilled operators. From 2005 to 2019, agricultural employment decreased 11 percent. Critical to meeting this challenge is delivering groundbreaking innovations that allow less-skilled operators to achieve optimal performance.

The 8RX includes advanced automation features, with over 200 integrated sensors and cameras, and advanced self-driving capabilities. These and other features make the 8RX easier to operate, which enables less experienced operators to optimally operate the machine, helping produce more to feed a growing population.

Even skilled farmers benefit from the 8RX, which allows them to turn their attention from steering or controlling an implement to making the adjustments and agronomic decisions necessary to improve productivity and sustainability.

All operators will benefit from reduced fatigue. The spacious, comfortable cab offers more headroom and a smooth, quiet ride, along with two times the LED lighting for bright, 360-degree illumination of the field.

In 2020, our 8RX Tractor won two of the oldest and most prestigious industrial awards for excellent product design — the Red Dot Award and iF Design Award for Discipline Product. The tractor was also a 2020 Tech for a Better World Honoree at the Consumer Electronics Show and was named the Sustainability Product of the Year by the Business Intelligence Group.



To see more of the story, visit [www.deere.com/en/our-company/news-and-announcements/newsroom/8rx-tractor-recognized-for-its-contributions-to-sustainability/](http://www.deere.com/en/our-company/news-and-announcements/newsroom/8rx-tractor-recognized-for-its-contributions-to-sustainability/)



## ASSESSING ENVIRONMENTAL IMPACTS WITH A PRODUCTION SYSTEMS LENS

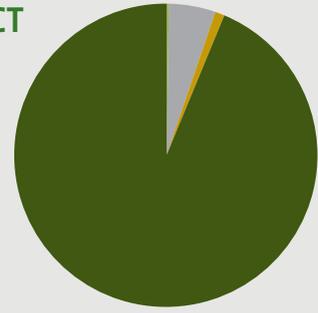
With the transition to our Smart Industrial Operating Model, we continue to shift our work from product-level Life Cycle Assessments to production-system LCAs. Production-system LCAs provide insights into the environmental impact of producing a bushel of a given crop. These insights help drive innovation to reduce the production system's overall footprint. More than 27 different operations were analyzed for the corn production system and indicated that fertilizer has the most environmental impact.

By focusing on these areas, we can design equipment and technology to reduce total fertilizer rate, while maintaining or increasing yield. An example is ExactRate™, a factory-installed fertilizer system that precisely monitors and controls the application of liquid fertilizer during planting. Other examples include the ExactEmerge™ performance upgrade that improves the speed and accuracy of planters, and MaxEmerge™ 5e, an upgraded seed meter with an electric drive that delivers improved accuracy and performance.

John Deere is a member of Field to Market, an organization that unites the supply chain to deliver sustainable outcomes for agriculture. With Field to Market, we assisted with the development of the Fieldprint® platform, an assessment framework that measures the environmental impact of commodity crop products during the life cycle and identifies opportunities for continuous improvement.

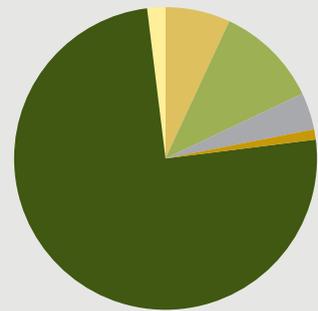
## TRACTOR ENVIRONMENTAL IMPACT

- Raw Materials & Manufacturing
- Maintenance
- End of Life
- Usage



## CORN PRODUCTION SYSTEM ENVIRONMENTAL IMPACT

- Seed
- Equipment
- Drying
- Pesticides & Herbicides
- Transport
- Fertilizer



## JOHN DEERE PRECISION FARM TECHNOLOGIES PROMOTE SUSTAINABLE AGRICULTURE IN BRAZIL

Brazil is among the most important food producers, helping feed the world's ever-increasing population. For 15 years, John Deere has been actively supporting the Integrated Crop-Livestock-Forest (ICLF) system in Brazil. The system allows different cultivation modalities, when integrated in the same area, to minimize risks to the farmer, enrich local biodiversity, and improve fertility and land use. ICLF increases productivity while benefiting the environment by recovering degraded areas and sequestering carbon.

In 2020, credit lines for farmers who adopt the ICLF system were announced, a historic milestone in Brazilian sustainable agriculture. Funds for these lines can be obtained through SAFF (Sustainable Agriculture Finance Facility), a financial mechanism established by the ICLF Network. SAFF was one of the projects selected in 2020 by the Global Innovation Lab for Climate Finance, a program to mobilize resources for sustainable development in emerging markets. Beginning in 2021, approximately \$62 million will be available for farmers in the first year. Certified rural properties will be able to use funds to purchase agricultural machinery.

John Deere Brazil is integrating ICLF certification with John Deere precision farming technologies to help encourage sustainable agriculture production. Data analysis from John Deere machines will be integrated with TrustScore, a system for certifying rural properties and ensuring access to the credit lines. Customers will be able to share operation and agronomic data using the John Deere Operations Center, John Deere's fleet management system. This will enable farmers to provide data directly to TrustScore to ensure compliance with goals and criteria established for certification. This will also allow farmers to view the entire crop cycle, from soil preparation to harvest, helping them plan work efficiently, reduce fuel use, and intelligently manage inputs.



# REMANUFACTURING

Our 2022 Product Sustainability goal includes a goal to increase remanufacturing revenue by 30 percent from our baseline year of 2017. In 2019, we had achieved a 10.0 percent increase in remanufacturing revenue. That number decreased to 8.9 percent in 2020.



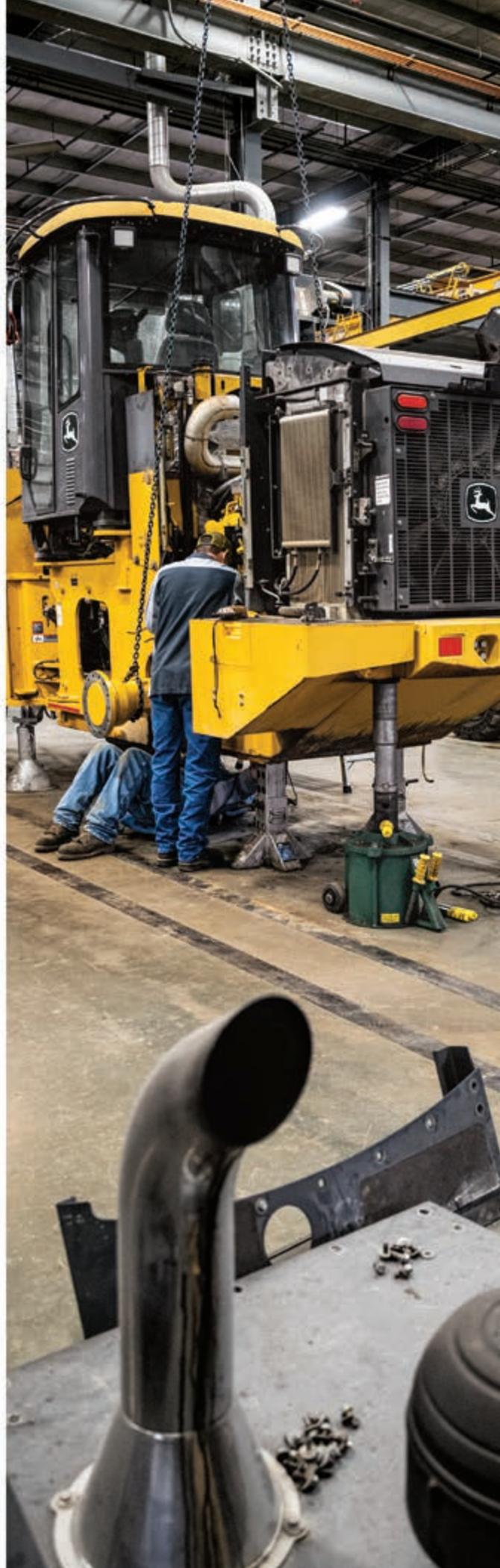
FOR A FULL LIST OF 2022 SUSTAINABILITY GOALS  
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Remanufacturing reduces John Deere's impact on the environment by reducing raw material through the reuse of parts, or what we call core. This enables us to eliminate waste and reduce energy use compared to manufacturing new parts. By bringing parts back to the original specification our John Deere REMAN business provides quality remanufactured products and electronics to agricultural, construction, and forestry customers at a lower price point than new parts and provides alternatives to customers looking for value and uptime.

Over the last two decades, our John Deere REMAN business has seen strong business growth, with 25 percent of REMAN revenues now derived from sales in markets outside of the United States and Canada. Customer acceptance of remanufactured parts continues to grow, and the environmental message associated with remanufacturing is resonating on a global basis.

Our John Deere REMAN business is also focused on continuous improvement and looking to the future. Our REMAN engineers have higher levels of engagement with new product design centers implementing "design for remanufacturing" into the original new product designs. Our operations teams have a heightened focus on improving core utilization using data and analytics to identify opportunities to better qualify core and improve core usage, thereby reducing the use of new parts content, reducing material spend and energy consumption. REMAN has recently found success in expanding their traditional business to include a Repair & Return business model in which a customer-owned unit is sent in, repaired, and returned back to the same customer. This new Repair & Return solution for electronic components is the fastest growing segment of our REMAN business.

John Deere is dedicated to the advancement of the remanufacturing industry. John Deere REMAN participates with the Reman Industries Council to promote standardization within the industry, addressing common challenges by remanufacturing organizations. The John Deere REMAN organization is working with REMADE, a DOE (Department of Energy) funded institute that brings together industry, educational institutions, and national labs to accelerate solutions for recycling and remanufacturing.





# SUSTAINABLE ENERGY USE

As part of our 2022 Sustainability Goals, we have committed to reducing our absolute GHG emissions by 15 percent from our baseline of 2017 through the utilization of at least 50 percent renewable electricity. In 2019, we had achieved a 3 percent reduction in GHG emissions and 25 percent renewable electricity. In 2020, those numbers rose to 19 percent and 32 percent, respectively.



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We are delivering on our sustainability commitments with financially sound projects in several ways. Our onsite renewable projects at several locations provide clear positive environmental impact. We also partner externally

with utilities, infrastructure policy organizations, and suppliers for offsite projects — these deliver an even larger economy and scale. And of course, efficiency is our first objective, everywhere.

It is our goal to identify priority energy-efficiency projects, and we may perform kaizen-type events to identify low-to no-cost projects to save energy and water. At many sites, we have established dedicated energy teams — multi-disciplinary groups who are responsible for analyzing baseline energy usage at their site, reviewing environmental and energy use factors, establishing goals that will help us achieve our company-wide climate and energy commitments, and creating and completing necessary projects.



This year we partnered with Clearway Energy Group in Texas and the Mesquite Sky Wind project. The virtual power purchase agreement (VPPA) is for approximately 109 megawatts of this new renewable resource. When operation begins in 2021, John Deere's portion of the wind project will address more than 25% of our global electricity footprint, or the equivalent of the electricity needed to power more than 30,000 U.S. homes on an annual basis.



## USE WATER RESPONSIBLY

Our current Water goal is to implement water Best Management Practices in all our water-scarce locations. In 2019, 21 percent of the best management practices have been implemented at our water-scarce facilities. That number increased to 29 percent for 2020.



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Water is a vital component of our global manufacturing operations. For example, water is crucial to ensuring that the multi-step process of painting our equipment ultimately results in the iconic green and yellow machines that our customers expect. Therefore, it is critical that we manage our manufacturing processes in water-efficient manner. Areas faced with the potential for water scarcity are our main priority. Geographic areas are determined to be “water-scarce” based on factors such as baseline water stress, access to water, groundwater stress, future water stress, and upstream storage of water.

Using the World Resources Institute Aqueduct Water Risk Atlas tool, 19 John Deere manufacturing sites were determined to be in areas of water scarcity, mainly in Mexico, India, and China.\* Pursuant to our commitment to achieve our 2022 Sustainability Goals, our manufacturing sites in these areas must implement applicable Best Management Practices by the end

of 2022. The required water Best Management Practices for each location may be different. These Best Management Practices may include actions like: site-specific water management strategies, employee education and awareness programs, incorporation of water-efficient equipment, leak-management plans, and water-reuse programs. Site-specific water management strategies determine current water consumptions and discharges, identify opportunities to reduce wasted water, guide water-focused goals, and establish a budget for water efficiency projects. Education and awareness programs encourage employee involvement in using water efficiently. Water-efficient equipment may be utilized in water-intensive areas, such as in a paint line or cooling towers. Leak management plans provide clearly defined processes for identifying and repairing leaks within the facility. Water-reuse programs are a way that facilities determine if specific water discharges are feasible to reuse in another process before being discharged.

Even though our goal is focused on water-scarce locations, our commitment to using water responsibly is a critical part of the way we operate all our global facilities. These facilities are also required to, at a minimum, develop a water management strategy and develop and implement an employee engagement and awareness campaign. Water management strategies are reviewed and updated annually.

\*Excluding recent acquisitions





## INCREASE RECYCLING

Our current Recycling goal aims to recycle 85 percent of our waste from operations by 2022. In 2019 and 2020, 78 percent of our waste was recycled.



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We continue to increase recycling within our facilities. We also encourage activities such as the use of returnable containers to mitigate waste.

Facilities operate their own waste management programs that provide guidance for how to comply with waste management requirements while increasing recycling. Our employees work to separate waste from recyclables in our facilities. Once waste and recyclables are generated, our facilities work with approved suppliers to ensure they are recycled or reused. We have processes in place to monitor our suppliers in this regard to ensure that we know where our waste and recyclables are ending up.

If issues are identified with the supplier through the John Deere supplier audit process, corrective actions are taken appropriate to risk, including switching suppliers if appropriate.

One of the largest leftovers of the manufacturing process is steel. Steel and scrap metal are not included within our waste reporting because they are commodities with established markets and associated economic value. Therefore, we recycle these materials through the resale process.

When including steel and scrap metal into the equation, the overall recycled content within our operations is much higher than the percentage reflected in our goals. Ultimately, our goals reflect our commitment to finding viable avenues for recycling types of waste content that do not necessarily have a clear avenue toward reuse.

At the Nagpur Parts Distribution Center, India, the packaging team developed a way to reduce the use of plastic packaging. Plastic air pouches were originally used in packages shipped to customers. The team innovated by reusing what was to be scrap corrugated cardboard and modifying that cardboard to be shredded. The shredded corrugated cardboard is reused as cushioning and void filler material in packages to customers. Approximately 70 kilograms of corrugated cardboard scrap is shredded daily. Since 2019, over 50 tons of corrugated scrap cardboard has been reused as corrugated cardboard shredding pads.





**SOCIAL**

# BATTLING FOOD INSECURITY During a Pandemic

In the wake of COVID-19, access to adequate food became a desperate challenge around the world, including for many in our home communities. With food insecurity on the rise for our employees, customers, and their families and neighbors, John Deere and our workforce did what we have always done—we worked with local food banks and other organizations to deliver food to those in need.

Helped nourish approximately **10,000** people



## BRAZIL

John Deere and its employees joined forces to donate over 13,000 food baskets totaling nearly 160 tons of food throughout our communities. Distributed across almost 90 vulnerable neighborhoods, these baskets helped nourish approximately 10,000 people in the midst of the pandemic.

Provided over **13,000** people with food and support

## INDIA

John Deere delivered over 3,500 kits containing rice, wheat flour, cooking oil, a dry ration packet, and food kit with ready to eat snacks, along with masks, sanitizer, and soap. Together, these kits provided more than 13,000 people with food and support for more than a month during the country's intensive lockdown.



**350 Food Kits + 835 Lunches** distributed



## MEXICO

John Deere distributed over 350 food kits, 835 lunches, and other essential items to vital institutions and organizations serving those in greatest need and at risk during the pandemic, including the elderly.

“Almost certainly the first essential component of social justice is adequate food for all mankind. Food is the moral right of all who are born into this world.”

DR. NORMAN BORLAUG, Nobel Prize winning agronomist and major contributor to the Green Revolution

# SMART CITIZENSHIP

Guided by our reinvented operating model and reinvigorated higher purpose, John Deere's citizenship strategy becomes even stronger. At the very heart of our citizenship work, we share the same focus on concepts like production systems, technology stacks, and lifecycle solutions, all with the goal of creating an impact on the lives for those we serve. Armed with this new focus and higher purpose, we can ensure that all of our efforts — be they financial investments or volunteer activities — not only have an impact, but also create opportunities for our neighbors, communities, and others to truly leap forward.

## FROM PRODUCTION SYSTEMS TO EMPOWERMENT SYSTEMS

Evaluating a customer's production system helps us find opportunities to unlock economic value. To do this we must first deeply understand the customer's goals and every step they take in their work to make their goals a reality. Since 1948, the John Deere Foundation has worked to understand the aspirations and lives of those it serves throughout our home communities and the world. Ultimately the goal is addressing the most pressing needs and finding the greatest opportunities to create social, economic, and environmental value.

In 2020, the John Deere Foundation enhanced its focus on youth, their families, and caregivers in our home communities. COVID-19 revealed how fragile the support systems are for many families as they simply strive to go to school, care for children, and go to work. The John Deere Foundation proudly invested in those organizations best

positioned to strengthen this multi-generational system, including a \$1.2 million grant to support YWCA Quad Cities in constructing a new state-of-the-art facility. This helps expand childcare services and create career pathways for the most vulnerable families in John Deere's headquarters community.

## STACKING CITIZENSHIP FOR GREATER IMPACT

Integrating different technologies into our core equipment platforms can create greater value for customers. That's the core belief behind our cutting-edge work in building our technology stack. This belief also holds true for John Deere's citizenship strategy. Guided by the United Nations Sustainable Development Goals, John Deere established the elimination of poverty, eradication of hunger, provision of quality education, and the creation of stronger partnerships as its core citizenship platforms. Upon these platforms, John Deere works with skilled nonprofit organizations around the world to build the best stack of programs with the people we serve.

There is no better example for John Deere of the power of stacking citizenship interventions than John Deere India's Samruddhi program. The program, now in its sixth year, is a joint initiative between John Deere and the Centre for Advanced Research and Development (CARD). Samruddhi blends agronomic training, youth education, water and sanitation, and other interventions to create the greatest and most sustainable impact in these communities. Because of Samruddhi, John Deere was featured by Bloomberg in 2020 as one of 50 Sustainability & Climate Leaders.

## PROSPERITY THROUGH PARTNERSHIP

The name of John Deere India's flagship citizenship program is "Samruddhi," a Hindi word that means prosperity. Consistent with its name, this project improves food security by promoting more productive agricultural techniques. At the same time, Samruddhi complements its agricultural work with better access to quality education for youth.

John Deere currently implements Samruddhi in Dewas, Sirhind, Nagpur, and Pune. Farmers in these communities used to rely heavily on traditional agriculture, and they were reluctant to adopt new technologies and methods. Working directly with farmers, John Deere helped demonstrate new processes, including the use of micro-nutrients, drip irrigation, mulching, and bio-fertilizers. These new processes brought bigger yields while saving water and other inputs. Because of Samruddhi, over 14,000 farmers are now able to provide more food for their families and communities and become more profitable. And almost 23,000 youth have been exposed to new education programs that will allow for benefits well into the future.



# Turning Trash into Treasure

Working side-by-side with Chad Pregracke and his team from Living Lands & Waters, nearly 250 employees from John Deere Horicon Works made a difference in early 2020. They took one semitrailer filled with trash pulled from the Ohio River and turned it into 2,000 pounds of recyclable materials saved from landfills. Volunteers spent three hours painstakingly combing through the trash to remove one ton of recyclable plastics and cardboard.

John Deere is a longtime partner with Living Lands and Waters, an organization dedicated to river cleanups, watershed conservation initiatives, tree plantings, and environmental education. John Deere provides more than financial and equipment support to Living Lands & Waters — we provide our people who help make conservation and recycling part of their own lifecycles.

John Deere is committed to investing in our citizenship work at least 1 percent of our net income based on our previous three-year average performance.

**US\$37.8M**

1.9% of our net income invested in 2019

**US\$36.7M**

1.4% of our net income invested in 2020

John Deere employees will record at least 1 million hours of volunteerism from 2017 through 2022.

**215,262 HOURS**

recorded by John Deere employees in 2019

**123,033 HOURS**

recorded by John Deere employees in 2020



# WORKPLACE HEALTH AND SAFETY

Our 2022 Sustainability Goals include a goal to achieve safety excellence through increased focus on leading indicators, risk reduction, health & safety management systems, and prevention.



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We made significant progress toward achieving our goals during 2020 through the launch of strategic initiatives associated with our management systems, ergonomics, and the introduction of a Safety Balanced Scorecard. The balanced scorecard includes leading and lagging indicators and is designed to enable continuous measurement of safety performance and drive continuous improvement.

Leading Indicators include injury/illness corrective action closure rates, near-miss corrective action closure rates, and risk reduction from Safety and Ergonomic Risk Assessment (SERA) projects. Lagging Indicators include total recordable incident rate, ergonomic recordable case rate, and near-miss rate.

Our Leading Indicators are tracked by most of our manufacturing facilities and internally reported. At a high level, the corrective action closure metrics measure how long it takes for a corrective action to be implemented after an injury or near-miss incident. The SERA program is a preventative program focused on risk identification and reduction through corrective action. Continuous Improvement teams, along with safety professionals and unit staff identify safety and ergonomic risks

which can be reduced or eliminated through a corresponding project or improvement. These may include physical changes to the work environment, sustainable process changes, or product design improvements. Each project is scored based on various elements of risk and each manufacturing unit has an annual risk-reduction goal. By focusing our efforts on these critical forward-looking solutions that address and prevent potential for injury, we are driving toward safer facilities and conditions for our employees.

One reason our employees are safe on the job is the company's attention to ergonomics — the practice of designing work and workstations to reduce health issues caused by overuse of muscles, incorrect posture, and repetitive tasks. We are committed to delivering world-class ergonomics by proactively integrating ergonomics principles and practices into business processes. To this end, we have established requirements that our John Deere manufacturing units should utilize when implementing an ergonomics program.\*

Our commitment to health and safety goes beyond the workplace, and we are mindful of the employee's health and welfare off the job. Through health assessments, training, and support, we are trying to enhance the wellness of our employees. We are beginning work with early intervention programs such as industrial athlete training, job conditioning, and physical therapy programs.

\*Excluding recent acquisitions and leases



“It simply measures at-risk movements by the employee so the individual can see results and go through personalized recommendations on how to reduce risk.”

Aaron Russell, RDC manager, John Deere Limited in Melbourne, Australia

## IMPROVING SAFETY AND ERGONOMICS AT OUR MELBOURNE REGIONAL PARTS DISTRIBUTION CENTER

Poor ergonomics is a major contributor to manufacturing workplace injuries. Repetitive motions and incorrect movements can cause injuries that occur in an instant or over weeks, resulting in unnecessary and unwanted lost time.

John Deere Limited in Melbourne, Australia, uses the SoterSpine™ ergonomics system to help correct — in real-time — movements that could lead to injury. The regional parts distribution center (RDC) was tracking first aid injuries at the facility and noted many were strain-related. Data analysis from the past three years had shown that approximately 50 percent of all injuries were strains, which made up 50 percent of the OSHA reportable incidents for each year. Complacency and improper manual handling techniques needed to be addressed.

SoterSpine is a wearable device that clips to the back collar of an employee’s shirt or vest and beeps for audible reminders, while also sending data to linked devices. An app on any mobile device can receive information based on the employee’s musculoskeletal movements throughout the day.

If an employee bends at the waist instead of squatting and using their legs to lift a box, SoterSpine will alert them before the action takes place. If an employee is working in

one place and moving the same over and over, SoterSpine captures that information, analyzes it, and then sends it to that employee’s smartphone or tablet. The feedback is immediate.

“It’s not a tracking device of any sort,” says Aaron Russell, RDC manager. “It simply measures at-risk movements by the employee so the individual can see results and go through personalized recommendations on how to reduce risk.” The goal is to have all employees go through the two-week program twice a year.

Strain injuries have shown a steady decline and analytics were able to identify high-risk jobs and high-risk times of day. Employees really make an effort to reduce their risk rate, with some achieving over an 80 percent reduction in at-risk movements for their 10-day cycle.



The project earned Melbourne a John Deere 2020 Safeguarding Award for Proactive Risk Reduction.

# CULTIVATING A Culture of Innovators

At John Deere, innovation is everywhere and no place more evident than on the factory floor. Every day our people identify improvements that help us deliver the highest quality products to our customers.

Innovation has been one of our company's core values since our founding in 1837. At John Deere, we know that innovation cannot exist without our people. In order to unlock value for our customers, we must unleash the innovative potential of our entire workforce.

Cultivating innovation starts with tapping into workers' expertise and insights, which is why John Deere adopted its Continuous Improvement (CI) process 20 years ago. Since that time, the CI process has empowered and

incentivized our workforce to innovate safer factories, better quality products, and more cost-effective processes. This has helped foster and enable a more appreciated, valued, and secure workforce.

Our CI process embodies what innovation has meant to our company for nearly two centuries – that an individual with a good idea can make something better. The CI process begins with message boards at John Deere factories, where workers can share ideas that improve safety, quality, or efficiency. Immediate follow-up encourages participation. Generally within 48 hours, each idea is vetted and discussed with the worker. A team then proposes, tests, and implements a solution, when appropriate.





The CI process fosters a workplace culture in which employees feel empowered to innovate by doing two vital things – financially rewarding employees with bonus pay and publicly thanking them for their accomplishments. In recognition for John Deere’s long efforts to cultivate a culture of innovation, John Deere was named by *Fast Company* as one of its 2020 Best Workplaces for Innovators.

As a result of the value created through CI, we’ve made significant investment in our factories over the last two decades. That’s an investment in our people and our future success. Through CI, we will continue to come up with ideas that lead to the development of innovative products we haven’t even imagined yet.



To see more of the story, visit [www.deere.com/en/our-company/news-and-announcements/newsroom/continuous-improvements-make-a-big-impact/](http://www.deere.com/en/our-company/news-and-announcements/newsroom/continuous-improvements-make-a-big-impact/)



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# Talent

To compete in dynamic world markets, John Deere must have a global workforce that is unwavering in its commitment to deliver outstanding value. It must also be flexible in adjusting to the changing needs of the business. For us to succeed, we must attract the right talent, develop them professionally and personally, and retain our employees to meet current and future business needs. We see our employees — at every level of the company and regardless of role — as our most valuable asset.

## Talent Attraction

To attract talent, John Deere offers competitive compensation and non-financial benefits everywhere we operate. These benefits are tailored to the specific market and are affordable for the company and its employees.

The non-compensation benefits we offer focus on all aspects of employee well-being, including financial, physical, social, community, and career. John Deere subsidizes daycare providers in some communities to help employees secure quality childcare. Through our Healthy Directions initiative, we have introduced programs and resources to help U.S. salaried employees focus on their health and well-being.

Some larger facilities have fitness centers onsite. In the U.S., a Financial Wellness program is offered to support employees through a variety of financial situations including budgeting, identity protection, savings and retirement planning. Many of our locations have retirement plans ranging from pensions to tax-deferred individual savings plans. We also encourage employees around the world to volunteer time to both workplace-sponsored community projects as well as charitable causes important to them personally. We offer a variety of working arrangements — including flexible schedules, telecommuting, and job sharing — to help employees manage home and work-life situations.





## Virtual Internship

Every summer, John Deere employs the talents of approximately 500 interns. Internships are a key asset to developing our next generation of employees. When COVID-19-related restrictions placed the in-person program in jeopardy for the summer 2020, a cross-functional team was created to make the program virtual. This first-ever fully virtual internship program offered a robust work experience for 372 interns. It also allowed us to assess their capabilities as we continue to build a talented, deep, and diverse talent pool. The program was a success — over 95 percent of the interns who participated were recommended for entry-level positions and development programs. And we demonstrate our agility and innovativeness with overcoming unprecedented events.

Intern Luke Ottey, a computer science major at Penn State University, helped John Deere's Intelligent Solutions Group develop computer vision applications. These applications use satellite images from multiple sources to detect disturbances in agricultural fields. He also helped a team

that was using a simulation to create training data for an autonomous tractor.

"The internship was extremely meaningful to me because of my experience with computer vision, aerial imagery, and predictive analytics," he says. "And with John Deere's transformation to Smart Industrial, they are introducing machine learning applications into their different teams. That's essentially my area of focus."

Ottey was highly satisfied with the virtual internship. He accepted an offer for a full-time position at John Deere Financial in the Analytics Development Program.

"Overall, it was a great experience," he says. "Everything I would have done in person I was able to do virtually. I couldn't imagine it going any better, and I'm very happy to get a job offer. I'm definitely looking forward to seeing what John Deere has to offer in person."

# THE RIGHT MIX OF TALENT

Having the right mix of talent is vital to our continued growth and industry-leading innovation. Diverse teams bring better ideas and make better decisions, helping us build more innovative products and deliver on our new higher purpose. Diversity, equity and inclusion (DEI) are embedded in our recruitment and employee development process, which leverages talent attraction methods, managers and cross-functional teams focused on diversity, and our Employee Resources Groups.

To attract diverse talent, John Deere invests in diverse college and university students as well as in their schools. We seek students who have diverse backgrounds, experiences, and thought processes. For example, we have had great success partnering with the Thurgood Marshall College Fund Leadership Institute, which supports the development of leadership skills at publicly supported HBCUs and predominantly Black institutions.

Leading professional organizations also play a crucial role in our diversity recruitment strategy. Developing and fostering deep relationships with these organizations positions us to attract exceptional, diverse talent. These relationships also offer current employees extensive leadership and development opportunities.

Our leadership sets a consistent and transparent tone on diversity and inclusion. Leadership training focuses on building an inclusive environment and driving positive behavioral change. To help managers with development and team building, we measure inclusiveness as part of our Employee Experience Survey.

We are working to further interweave DEI into all aspects of how we lead and do business. In addition to regional councils, we are also forming a global Diversity and Inclusion Council with senior leaders who own our DEI journey. Our DEI journey is a collective effort that involves every level of our organization, and must be a clear priority of every leader. Our councils help build and support a diverse, equitable and inclusive work environment.

Our company-sponsored Employee Resource Groups (ERGs) are employee-run organizations formed around a common dimension of diversity, interest, or experience that affects the workplace. ERGs bring together individuals with shared interests, while serving as resources to our business. Their efforts address three key focus areas — employee development, community involvement, and business alignment.



We proudly partner with these professional organizations:



## TOGETHER ANYWHERE.

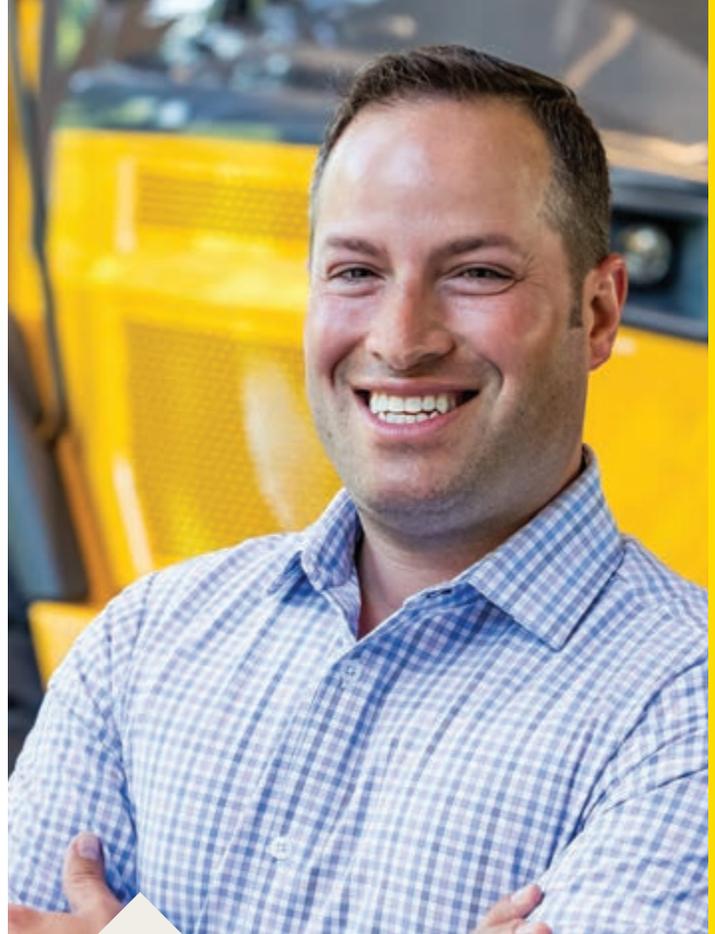
John Deere's 1,300 Rainbow ERG members use in-person social gatherings to build networks within the company for sharing and communicating opportunities. When COVID-19 struck, a vast majority of ERG members began working from home. The ERG leaders identified feelings of isolation among members as a problem that needed their urgent attention, so they focused efforts to connect members through a variety of engaging and creative virtual solutions, including starting a new virtual social network.

Rainbow ERG not only adapted to the environment but thrived. "COVID-19 was all over the media and work and home and schools," says Deb Shaw, a Rainbow ERG member and senior facilities engineer. "So the facilitators decided to not bring up COVID-19 directly, but instead asked for positive thoughts around the current situation. If a member brought up negativity surrounding COVID-19, we would very much allow them to vent or share their experiences. The whole point of the socialization was support. Most of all we shared a common belief of treating others with respect and humanity."

As a result of its efforts, the John Deere Rainbow ERG received a 2020 Outie Award for Belonging During COVID-19 from Out & Equal, the premier organization working exclusively for LGBTQ workplace equality. Outie Awards recognize individuals and organizations as leaders in advancing equality for LGBTQ people in workplaces globally. John Deere's award recognizes the company's efforts in stepping up during the COVID-19 pandemic and innovating to maintain and increase a sense of belonging for all employees.

Out & Equal noted that in addition to the virtual networking sessions the John Deere Rainbow ERG continued educational efforts by helping launch the first-ever LGBTQ Awareness Online Course to teach employees how to recognize challenges, display empathy, learn inclusive language, and be an active ally. The Rainbow ERG also partnered with the John Deere Black Employee Resource Group (BERG) to hold conversations and draft a formal statement on racial justice to company leaders.

Rainbow ERG earned the 2020 Outie Award from Out & Equal, the premier organization for LGBTQ workplace equality.



"Friends, 2020 has not been normal. Our lives changed suddenly and dramatically. For many of us, we have been isolated from the human support systems upon which we depended to survive and thrive. Our human contact has often been reduced to what we can fit through a digital screen. These are challenges that we at John Deere and those of us in the LGBTQ+ community have overcome by creating ways to be together, wherever we are and despite whatever we face."

— Roberto Leone, Audit Manager – IT, Deere & Company, acceptance speech, Outie Award for Belonging During COVID-19

### EXAMPLES OF ERGS THAT EMPOWER EMPLOYEES ACROSS MULTIPLE UNITS INCLUDE:

**.EDU:** engages and retains members by challenging them to share their passions for learning, teaching, and leading.

**Asian Connection:** develops and promotes professional competencies and enhances employees' understanding of John Deere's link to the Asia/Pacific region.

**Black Employee Resource Group:** fosters employee engagement, provides professional development opportunities, and facilitates community involvement, all while promoting and supporting a diverse and inclusive environment within John Deere.

**FLEX (Flexibility Leads to EXcellence):** supports work-life management and employees in a formal teleworking arrangement worldwide by increasing engagement and awareness.

**HOLA:** helps recruit and retain Hispanic/Latino employees, offers community outreach programs, leads employee development programs, and advocates for diversity and inclusion.

**Military Employee Resource Group:** enables members to express their support for military families and activities and exercise innovation and leadership.

**Multicultural:** creates an inclusive and collaborative environment and fosters personal and professional development by bringing together employees from a variety of racial and ethnic backgrounds to promote understanding.

**NEON (New & Experienced Organizational Network):** focuses on both business- and social-oriented events and is open to all employees, regardless of their years of experience.

**Parent & Caregiver Connection:** empowers and improves the effectiveness of John Deere employees in their dual role as business professionals and family caregivers.

**Rainbow:** supports lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) employees and their allies at John Deere by focusing efforts on inclusion, breaking isolation and encouraging employee networking.

**Women in Operations:** attracts women for careers in operations, develops current talent for careers and opportunities in operations, and retains women in operations.

**WomenREACH (Relating, Enriching, Achieving, Challenging, and Helping):** creates an environment for women to learn, develop, and build professional relationships.

# TALENT DEVELOPMENT

Training and development opportunities for employees at all stages of their careers empower them to reach their full potential. Employees are also critical to the long-term success of our business. We encourage employees to identify the paths that can build the skills, experience, knowledge, and competencies needed for career advancement. We support them by creating purpose-driven work opportunities, comprehensive performance reviews and development plans, mentoring opportunities, and professional and personal development opportunities.

## From the Start

For those employees that join John Deere right out of college, we have a robust program in place to provide them with diverse experiences and a broader network to lay the foundation for their career.

Upon graduation, students can join the John Deere team by applying to one of the John Deere Development Programs. These programs ensure that new employees gain experience in different areas of the company at the start of their careers. New hires rotate between two or more entry-level roles within their fields of study to build knowledge and experience. Development Programs exist for engineering, IT, supply management, marketing, analytics, accounting & finance, and HR.



Click here to learn more about our Development Programs, visit [deere.com/en/our-company/john-deere-careers/jobs-for-students/new-graduates/](https://deere.com/en/our-company/john-deere-careers/jobs-for-students/new-graduates/)

## Through an Employee's Career

### Performance Reviews and Development Planning

Competencies are the foundation of development at John Deere and align behavior with strategy. They provide a common language for how we work, helping set performance expectations and guiding career planning. They also drive professional development, including soft skills and technical capabilities.

In 2019, we introduced a new behavioral competency model which reflects the behaviors, knowledge, skills, and attributes that employees develop over their careers. These define how we achieve performance goals and business results. The John Deere Competency Model, which complements functional and technical skills, comprises three performance themes and 11 behavioral competency categories.

To empower employees to focus their work on activities that have the highest impact for both the company and their development, we have developed Global Performance Management (GPM). This system aligns their work to key business objectives and the John Deere Strategy. GPM also focuses employee attention on the importance of how we work with one another, emphasizing teamwork and interpersonal relationships.

In addition to GPM, Individual Development Plans (IDP) provide a process for employees and their managers to identify and track development objectives. This may include attending John Deere University, a global online learning tool that provides access to a wide range of colleges and course curricula.

GPM and IDP provide ongoing and collaborative processes through which managers and employees have regular performance and development conversations. GPM is part of the annual merit process, which is used to determine increases in base pay.

### Mentorship

At John Deere, we know that most development occurs on the job through hands-on learning and support from others. To ensure that our employees have a strong network of support, we have developed a robust Mentoring Process. The vision for the process is simple — we want every employee to have cross-cultural, generational, and functional skill development from someone else in the company. This collaborative knowledge-sharing connects colleagues globally and leverages expertise and processes at John Deere. Although the main focus is the development of the mentee, mentors also gain knowledge and development from the relationship.

### Professional & Personal Development Opportunities

As employees grow throughout their careers, we are committed to offering experiences and opportunities that will challenge and reward them. Whether an employee decides that they will be a people leader or a knowledge leader, we provide development training and experiences.

Under the “People Path,” leaders are developed by engaging employees and maximizing their potential to achieve outstanding business results. In 2020, we introduced a new Leadership Model. Implementing the Smart Industrial Operating Model requires our leaders to demonstrate several key capabilities connected to our values and history, while guiding us into the future. The new leadership model highlights the behaviors expected of John Deere leaders as they execute our strategy, model our culture, and create our future. Collectively, these behaviors will allow us to lead an engaged and inclusive culture while producing exceptional business results.

Under the “Knowledge Path,” leaders develop themselves by contributing their technical and professional expertise to the building of products and services that will help improve the world. Through their knowledge, these leaders execute, support, research, and innovate technologies and they

develop and teach others. We draw on their knowledge to drive innovation, continuous improvement, and the development and execution of the John Deere Strategy. The John Deere Fellows Program is the highest level of recognition for employees who have contributed to the company’s success through deep expertise in their functional areas.

### DEVELOPING GLOBAL LEADERSHIP

Due to COVID-19 and a quickly changing environment, several of our leadership programs were cancelled in 2020, but we were able to pause, pivot, and provide an adapted experience for those selected for the Global Leadership Program. The Global Leadership Program provides formal and experiential learning opportunities to understand trends in business innovation, the marketplace, and competitive challenges all while driving sustainable change. Nine leaders with diverse backgrounds and experiences were selected for the program. In partnership with Tuck School of Business, the consortium program provides John Deere executives the opportunity to learn from executives from non-competing companies.



Robin Singh  
Chief HR Officer

# Talent Retention

It is not enough for us to attract and develop our world-class talent — we must also retain it. To retain our employees, we measure and manage the quality of the employee experience and employee turnover. We are very pleased that our commitments to and investments in our employees result in low turnover compared to others in our industry.

We conduct confidential Employee Experience Surveys across the majority of the business. In this survey, we emphasize employee engagement and manager effectiveness to ensure that we learn the extent to which employees feel engaged and supported in their work. Employees are strongly encouraged to participate. We use the results from the survey to develop action plans across the enterprise.

In 2020, we conducted a global pulse survey to measure engagement and to capture what was on employees' minds as we navigated COVID-19. Overall, employee engagement increased 4 points from the previous year. Employees were appreciative of how the organization was fostering their well-being during the pandemic. Our talent management team offered resources such as short videos to employees, like "Ways to Prevent Burnout" while working from home or "Best Practices for Engaging a Split Team (On-Site and Remote)."

## UP- AND RE-SKILLING GLOBAL IT

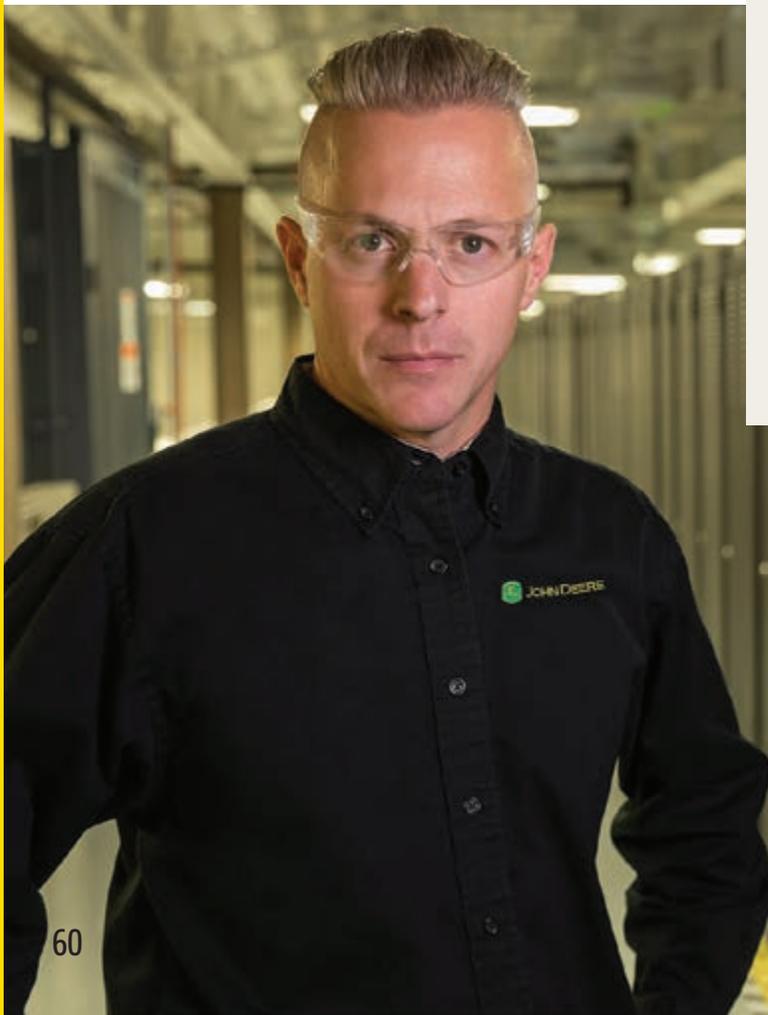
Developing skills to drive innovation and quality to support our customers is at the core to our business. Over the past year, John Deere's Global Information Technology (IT) organization has focused on transforming skillsets and processes to increase speed and deliver more value to our customers through a new Smart Industrial Operating Model. This transformation effort highlighted gaps between many of our IT employees' existing technical skillsets and those needed to enable the future of Deere. We made a strategic decision to offer many of our employees distinct opportunities to develop the skills needed to fill new roles within the Global IT function.

These strategic investments in both tools and employees' time, were built on two fundamental approaches: UP-Skilling for those employees who are technically proficient to perform in our future roles and are able to refresh and refine specific skills; and, functional RE-Skilling for employees who want to make a career pivot into software engineering, a role in high-demand in Global IT.

UP-Skilling consists of integrating a collection of courses from world-class universities and companies into Deere and curating learning paths to build and reinforce the specific skills needed by Global IT functions. These courses give our employees unprecedented access to varying levels of skill development, so each employee can find the right course to fit their individual need. In addition to the technical skills our employees have gained, employees completed intermediate and advanced course completions for communication and leadership skills.

The RE-Skilling program consists of a learning experience where Global IT employees are able to dedicate their full working day participating in a 12-week, intense, fully immersive software engineering skill development program. RE-Skilling represents a double investment in the employee considering both the cost of the program and the employee's full dedication to training throughout the immersion.

The UP- and RE-Skilling efforts in Global IT represent a dynamic approach to building an internal talent pipeline for skills that are in high demand. By investing to develop our existing employees, we are able to retain talent and align them to the ever-evolving skills needed to drive customer value.



# HUMAN RIGHTS

At John Deere, we honor human rights and respect the individual dignity of all persons globally. Our commitment to human rights requires that we understand and carry out our responsibilities consistent with company values and practices.

We strive to ensure that human rights are upheld for our employees and all workers in our supply chain. Our commitment to respecting human rights is defined in our Code of Business Conduct, Supplier Code of Conduct, and John Deere's Support of Human Rights in Our Business Practices, which establish clear guidelines for our employees and suppliers, while helping to inform our business decisions.

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 a more positive workplace, the code provides guidance on creating an inclusive 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 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. This code addresses the following key areas:



Labor and Human Rights



Health and Safety



Environment



Ethics



## BETTER FOR ALL

Hatred and discrimination have no place in our society. Because actions speak louder than words, the John Deere Foundation pledged \$1 million to the NAACP Empowerment Programs to fight against racial inequality. We also matched two-for-one donations for U.S. employees to social justice reform organizations. These included the NAACP, American Civil Liberties Union, National Urban League, Trevor Project, Equality Now, Thurgood Marshall College Fund, and United Negro College Fund. By empowering employees to make a difference and express solidarity, we can build a better future and contribute to equality.

We can build a better future and contribute to equality.

# PRODUCT Safety

Our Corporate Product Safety Department works with factory safety committees, especially during product technology development, and provides coordination and consistent processes for multiple-factory product development projects. Product safety and standards engineers keep abreast of, and lead advancements in, product safety by participating in standards development and trade organizations.

During all product design, we adhere to our General Rule for Product Safety. This rule requires that an acceptable design must not present an unreasonable risk of injury to a product user or others nearby. In applying this rule, we consider the people, environmental conditions, and other products with which a product is likely to be involved.

Beyond our General Rule for Product Safety, we rely heavily on applicable safety standards as published by the International Standards

Organization (ISO), the American National Standards Institute (ANSI), the American Society of Agricultural and Biological Engineers (ASABE), European Committee for Standardization (CEN), and other organizations. Our goal is to meet or surpass the intent of these standards.

As part of our design process, we ensure safety information appears in pre-delivery instructions, operator's manuals, technical manuals, and other service publications according to the activities to which they apply. In addition, safety instructions in the form of safety signs are affixed to the product to appropriately warn an operator of potential hazards.

We also provide training resources such as videos, posters, brochures, and guides. We support child-safety organizations, such as Progressive Ag Safety Day, and we encourage our dealers to promote safety in their communities.





## OBSTACLE DETECTION AND INTELLIGENCE

Developing safe products is one of our key priorities.

Appropriate features are built into John Deere products to help protect operators and others from injury. For example, John Deere excavators, wheel loaders, crawlers, and skid steers can be equipped with a rearview camera that displays the action behind the machine on a color monitor. Our wheel loaders also feature a rear radar object-detection system.

In addition, John Deere is currently developing Obstacle Intelligence as a potential feature for its loaders, skid steers, and excavators. Possible elements could include an advanced rear-object detection system, virtual mirrors that provide a wider field of view, a display showing projected path lines of the vehicle, and alerts for objects that intensify as the object gets closer.

We also have a robust incident reporting system that collects incident information involving John Deere equipment from numerous sources, including our dealers, the customer call center, and public information.

All incident reports are forwarded to the Corporate Product Safety Department and entered into a central repository. A formal report of the incident is sent to the factory and marketing groups responsible for the product, where it is reviewed by the factory Product Safety Committee.

We have developed and use product repair and recall processes, which include specific activities and procedures for product recall reporting and notification. All consumer product recalls are posted on the John Deere website and the website of the appropriate governmental agency.

A growing number of laws and regulations around the world relating to the chemical makeup of products placed on the market are being introduced, and revisions are made to those already in existence. The company monitors product chemical regulations, such as REACH and RoHS laws. As new requirements are identified, we update our processes while continually engaging our supply base.

## KEYWORDS

**REACH** - Registration, Evaluation, Authorization and Restriction of Chemicals

**RoHS** - Restriction of Hazardous Substances



To see more of the story, visit [deere.com/en/parts-and-service/safety/](https://deere.com/en/parts-and-service/safety/)

# PRODUCT Quality

Quality is a core value for John Deere. Significant effort and investment go into delivering a standard of quality that achieves the highest levels of customer satisfaction. John Deere's success with our Distinctive Product Quality initiatives has ensured that our customers' uptime needs are met to keep them running in the field, the construction site, or wherever they connect to the land.

Establishing aggressive customer-driven goals for all our products helps assure product quality. A continuous improvement process led by our product teams helps us address quality issues identified through several channels including warranty claims, connected machine data, and dealer and customer feedback. When an issue is discovered, cross-functional teams swiftly evaluate the issue, and implement corrective actions as appropriate. We also continually monitor and measure customer feedback through customer surveys and machine performance via our connectivity solutions for much of our John Deere fleet.

## **Product Quality at John Deere has four primary focus areas:**

### **PRODUCT DEVELOPMENT QUALITY**

During product development, John Deere's quality processes include significant reliability and durability testing, validation of new parts and procedures, and tracking to ensure products are ready for our customers at launch. Cross-functional teams, including both internal disciplines and critical suppliers, track results, make adjustments as needed, and manage

programs to ensure customer expectations are met throughout the product lifecycle. The engineering team audits and inspects new parts and procedures. The team also performs testing in the lab and field to find product failures before they get to our customers. We engage critical suppliers and involve them in design, manufacturing, and quality planning. This helps ensure John Deere products meet customer needs throughout the product lifecycle.

### **MANUFACTURED QUALITY**

John Deere's quality management system includes teams that work with operations, manufacturing, and product engineering teams to ensure the highest level of quality. Quality processes, audit checks, and automated controls are built into each station of operation. Teams also validate and audit the final product using a customer-focused machine runoff, final set of inspections, and smart testing tools that allow them to proactively find and address any issues prior to product shipment. Currently, 44 of our global manufacturing locations are certified in ISO 9001.

Through rigorous auditing, inspections, and process reviews, we work with our suppliers to ensure they are capable of continually producing quality components and parts. Additionally, John Deere offers coaching, capability support, and industry information that helps suppliers improve performance. Our partnership with suppliers is key to ensuring final product quality.

## PROBLEM RESOLUTION

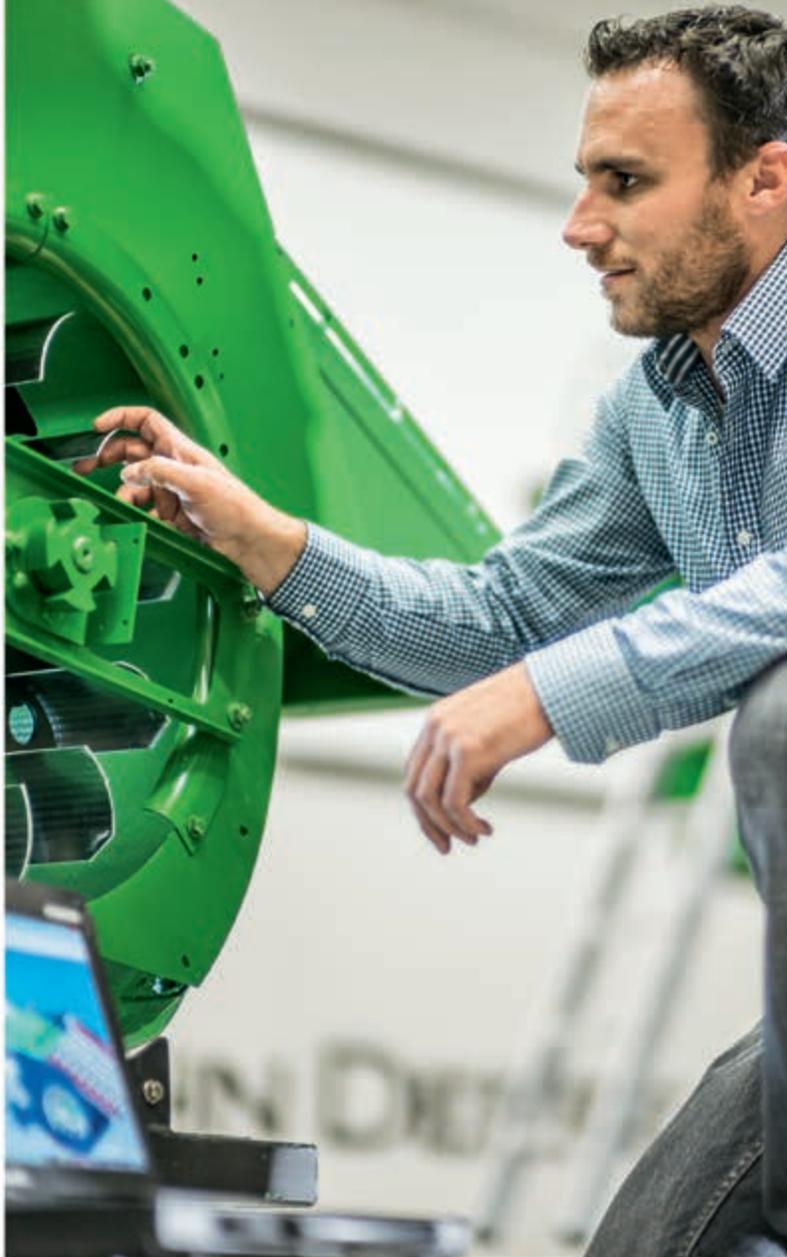
When problems or issues are identified, we follow a rigorous problem resolution process. This ensures we address issues quickly and completely by finding the root cause, validating solutions, and resolving problems with preventive actions. Leveraging virtual validation and lab analysis tools helps us quickly find a solution and make improvements. These tools also help us learn from failures.

We understand that time is money with our customers and every minute counts. More access to data and information about connected machine performance and from our production facilities helps us more rapidly identify and resolve customer problems. To help limit customer downtime, we proactively release software updates, some of which can be delivered remotely. We also closely monitor customer satisfaction through customer surveys, making sure our uptime performance is truly distinctive to our customers.

## CUSTOMER SATISFACTION

Customer satisfaction is a key focus for us and part of our company-wide Distinctive Product Quality Initiative. Distinctive Quality is what defines, characterizes, and supports our brand. It differentiates us from the competition by contributing to a distinctive customer experience and delivering value to our stakeholders while also satisfying applicable requirements.

Leveraging customer insights and experiences helps us deliver Distinctive Quality by targeting quality levels for each product that are unique in the industry. We closely track performance of all products in relation to quality goals. We regularly follow up with our customers to ensure our products meet their specific requirements. Customer feedback drives modifications to our processes and product improvement, for example, improving longer-term reliability and durability well after the manufacturer's warranty has expired.



## IMPROVING PRODUCT QUALITY AT HARVESTER WORKS

John Deere Harvester Works, Moline, Illinois has invested over \$10 million in quality and factory process control technology since 2014. In conjunction with this large investment, cross-functional problem-solving teams have reduced the failures per machine by half, resulting in more durable products with lower repair costs and fewer warranty claims. The use of data, analytics, and technology at John Deere Harvester Works reduces process variation in the manufacturing of our combines and front-end equipment to produce the highest quality products for our customers.



**GOVERNANCE**

# 2022 SUSTAINABILITY GOALS

John Deere has typically utilized a short-term time horizon for sustainability goals, which has ensured that each set has been near-term enough to drive behavior toward accomplishing those goals, as well as provides enough time for the business to adapt and make the necessary changes.

In setting our 2022 Sustainability Goals, we benchmarked more than 30 companies including sustainability leaders, others in our industry, and companies represented on John Deere's Board of Directors. The goals went through rigorous evaluation by a cross-functional team, which considered alignment to our business and strategy, extent of business evolution necessary to achieve within the time frame, and priority areas for internal stakeholders. As a result, we developed five core sustainability goals that we have committed to delivering on by the end of our fiscal year 2022.

## PROGRESS TOWARD OUR GOALS

We continue to make positive progress toward accomplishing our 2022 Sustainability Goals, despite the challenges presented by the dynamic circumstances of 2020 and the COVID-19 pandemic. Our top priority during 2020 was keeping our employees safe. Despite the challenging circumstances, we saw a 20 percent improvement in our Total Recordable Incident Rate from 2019 to 2020.

We continue to reduce our GHG emissions, although a portion of the progress experienced in 2020 was due to the impact of COVID-19 on our operations, rather than our structural improvement programs. Therefore, we still expect that our time horizon for accomplishing our 15 percent absolute GHG reduction goal will be 2022. A major part of achieving this goal is through the use of renewable energy, and we are over halfway to our goal of 50 percent renewable electricity.

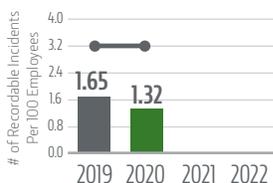
Our global units are implementing water best management practices, and continue to explore opportunities for increased avenues for recycling, despite some obstacles presented by the impact of COVID-19 during 2020 and the shifting global market for recycling. While our remanufacturing activity was down this year due to the pandemic, we expect this area to continue to grow meaningfully into 2022 and beyond. As a company, we rolled out 21 new product programs during 2020, 67 percent of which have a reduced environmental impact compared to prior models.



## OCCUPATIONAL HEALTH AND SAFETY

Achieve safety excellence through increased focus on leading indicators, risk reduction, health and safety management systems, and prevention.

### ENTERPRISE TOTAL RECORDABLE INCIDENT RATE



**↓ 20%**  
from 2019 to 2020

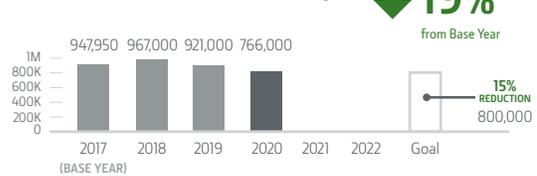
● BLS\* \*BLS = Bureau of Labor Statistics - NAICS 333 - Machinery Manufacturing  
Note: BLS data based on a calendar year



## SUSTAINABLE ENERGY USE

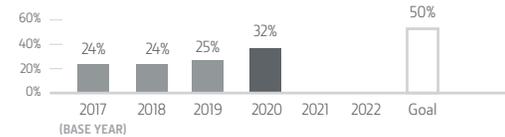
Reduce greenhouse gas emissions by 15 percent through 50 percent renewable electricity supply and excellence in energy efficiency.

### GREENHOUSE GAS EMISSIONS (mtCO<sub>2</sub>e)



**↓ 19%**  
from Base Year

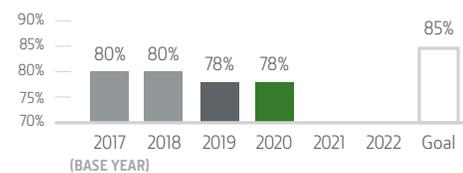
### RENEWABLE ELECTRICITY



## INCREASE RECYCLING

Recycle 85 percent of total waste.

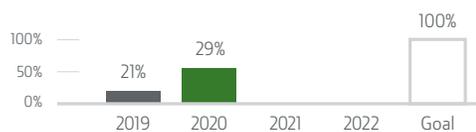
### WASTE RECYCLED



## USE WATER RESPONSIBLY

Implement water best management practices (BMP) in 100 percent of water-scarce manufacturing locations.

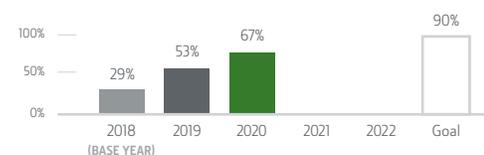
### WATER BMP IMPLEMENTED



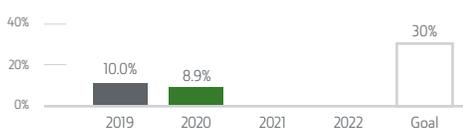
## PRODUCT SUSTAINABILITY

Reduce environmental impact, including CO<sub>2</sub>e emissions, on 90 percent of new products. Increase the use of sustainable materials by growing remanufactured and rebuild sales by 30 percent and by increasing recyclable, renewable, and recycled content.

### NEW PRODUCT PROGRAMS WITH LOWER ENVIRONMENTAL IMPACT



### REMANUFACTURED AND REBUILD SALES GROWTH





# CORPORATE Governance

At John Deere, we believe strong corporate governance — starting with our Board of Directors — enhances our business. With our Board's oversight, we conduct our business openly, honestly, and fairly. We measure our accomplishments by how we achieve them as well as by the results themselves. More than this — we know that our results will be greater and more long-lasting when we achieve them the right way. In short, we believe that strong corporate governance creates long-term shareholder value.

John Deere currently has a Board of 11 Directors. Directors are nominated based on their skills, experiences, and backgrounds and the needs of the Board and our company. Every Director must stand for election annually.

At all times, a majority of the Board of Directors must meet the criteria for independence established by applicable laws and regulations and the New York Stock Exchange. At the end of calendar year 2020, all of our Directors, except our Chairman, were independent.

Directors are recruited to strengthen the Board's diversity and ensure that the Board reflects and understands the diverse perspectives of John Deere's stakeholders around the globe. Three of our 10 independent Directors are female and three of our 10 independent Directors are people of color.

Our Presiding Director is elected by a majority of the independent Directors. Among other duties and responsibilities, the Presiding Director presides at all meetings of the Board at which the Chairman is not present and, jointly with the Chairman, approves the schedule of Board meetings, the proposed agendas, and the materials to be sent to the Board. The Presiding Director can also call meetings of the independent Directors and is available for direct communication with shareholders.

(from left to right, top to bottom) John C. May, Sheila G. Talton, Dipak C. Jain, Tamra A. Erwin, Dmitri L. Stockton, Charles O. (Chad) Holliday, Jr., Sherry M. Smith, Gregory R. Page, Michael O. Johanns, Alan C. Heuberger, Clayton M. Jones

John Deere has developed a risk management process to manage long-term shareholder value with oversight by the Board. Sustainability topics are incorporated into this risk management process. Various internal committees comprising Senior Officers have responsibility for identifying, evaluating, mitigating, and monitoring risks. Reviews of key risks typically occur at regularly scheduled Board meetings. Periodically, pertinent risks are reviewed with the Board to provide a deeper understanding of the current trends and mitigation plans.

## **THE BOARD HAS DELEGATED SOME OF ITS AUTHORITY TO FIVE COMMITTEES:**

### **THE EXECUTIVE COMMITTEE**

The Executive Committee may meet as needed to act on matters requiring action between meetings of the full Board.

### **AUDIT REVIEW COMMITTEE**

The Audit Review Committee assists the Board in overseeing the integrity of our financial statements, our compliance with legal requirements, and the performance of our internal auditors.

### **COMPENSATION COMMITTEE**

The Compensation Committee makes recommendations to the Board regarding incentive and equity-based compensation plans. It also evaluates and approves the compensation of our executive officers except for the compensation of our CEO, which is approved by the full Board.

### **FINANCE COMMITTEE**

The Finance Committee reviews the policies, practices, strategies, and risks relating to John Deere's financial affairs and exercises oversight of our Financial Services business, pension and OPEB matters.

### **CORPORATE GOVERNANCE COMMITTEE**

The Governance Committee monitors corporate governance policies, evaluates and recommends nominees to the Board, recommends Board structure, and oversees our Center for Global Business Conduct. The Committee also oversees the company's compliance programs and monitors risks related to environmental matters, occupational safety, product safety, product compliance, product liability, supply chain, and other related sustainability topics.

## **JOHN DEERE POLICIES**

Because we believe corporate governance is integral to creating long-term shareholder value, our Board of Directors has adopted company-wide corporate governance policies that are periodically reviewed and revised to ensure that they reflect the Board's corporate governance objectives. These policies, along with John Deere's Code of Business Conduct and other work-specific policies, establish the framework by which we conduct ourselves and our global business in full 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, and 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 all 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.

### **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.

### **SUPPLIER CODE OF CONDUCT**

This code ensures 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 supply chain.

### **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.

# SUSTAINABILITY

# Governance

Responsibility for sustainability runs from our Board of Directors to our employees. To do this, the Board oversees a variety of committees, councils, and policies to engage every employee throughout the company. With the Smart Industrial Operating Model, we are reevaluating the future of these different committees, councils, and groups to ensure sustainability ownership is further driven throughout the organization.

The Corporate Governance Committee guides and directs strategic planning, metrics generation, and reporting guidance regarding sustainability through the following groups:

**Enterprise Environment, Health, Safety, Standards, and Sustainability (EHSSS) Council.** The EHSSS Council provides leadership to assure business decisions address regulatory compliance in relation to the supply chain, risk reduction, and safeguarding employees, customers, and the environment. The council advocates practices that promote sustainable performance with natural resource conservation through global operations and with John Deere products, services, and technology solutions. The EHSSS Council meets multiple times annually and members include executive and division leadership and subject matter experts.

**Product Safety Standards Regulatory and Compliance (PSSRC) Council.** The PSSRC Council provides guidance and direction for product safety and standards. It meets at least three times a year and makes a formal annual report to the Corporate Governance Committee. The Council includes corporate and platform product safety and standards personnel, as well as legal and public affairs counsel.

**Climate Change and Carbon Risk Team (CCCRT).** Climate change risks and opportunities are reported to this team via quarterly meetings. The team monitors changes in climate science, technical issues such as land-based offset protocol developments, macro- and sector-level economics related to forestry and agricultural modeling, carbon and fuel prices, customer trade associations' positions, climate regulation and legislation globally, and other carbon marketplace news. The team is composed of global representatives from supporting business areas and subject matter experts.

**Environmental, Social, Governance (ESG) Committee.**

The ESG committee protects and promotes John Deere's brand, reputation, and investment interests. It tracks, coordinates, and documents requests for information from the company on ESG issues. The committee meets on a quarterly basis and is composed of subject matter experts.

**Subject Matter Experts.** Subject Matter Experts are responsible for developing and executing the strategic plan and generating metrics based on their deep understanding of the specific subject and the company.



# ENVIRONMENT, HEALTH, AND SAFETY OPERATIONS GOVERNANCE

John Deere's workplace health and safety and environmental commitments and efforts are set forth in our Environment, Health, and Safety Policy and are integrated into the company's worldwide operations through two critical systems: the John Deere Health and Safety Management System and Environmental Management System. One internal process in place to ensure alignment with our environmental commitments is the Capital Facility Approval Funding process.

## **HEALTH AND SAFETY MANAGEMENT SYSTEM**

Our Health and Safety Management System is based on ISO 45001. Global standards set the minimum requirements for John Deere health and safety. We also set standards for contractor safety, which include a requirement to conduct a hazard assessment for contractor work with high risks to personnel, property, and business interruption.

Every five years, third-party safety audits are conducted at the majority of our manufacturing locations. 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.

## **ENVIRONMENTAL MANAGEMENT SYSTEM**

John Deere is currently transitioning to ISO (International Standards Organization) 14001:2015. This system fosters continuous improvement and drives environmental performance.

Currently, 13 of our global manufacturing locations are certified in ISO 14001:2015, with a goal of having 100 percent manufacturing locations certified by 2022 (excluding joint ventures and recent acquisitions).

Every four years, third-party audits are conducted at certain John Deere sites, selected based on relative level of risk. Sites not subjected to third-party audit are assessed through our internal audit protocols. Both types of audits are aimed at assessing compliance of each facility with environmental programs and applicable regulatory requirements around the world.

## **CAPITAL FACILITY APPROVAL FUNDING**

We aspire to design, build, and operate facilities that minimize use of natural resources. Any new capital project over \$4 million of facility-based spend must be evaluated using the Sustainable Facility Design Tool before leadership approval can be obtained. This tool determines and prioritizes environmental design strategies by region, type of facility, and whether that facility is owned or leased. Examples of such strategies include natural lighting options and water recirculation. These prioritized strategies are then incorporated within project design when viable.



# Compliance

Operating with the highest business ethics requires vigilance. John Deere's Center for Global Business Conduct helps ensure consistent compliance in a dynamic global business environment with increasingly complex global laws and regulations.

The Center for Global Business Conduct provides continuous training, communications, and best practices throughout John Deere's operations to ensure compliance with laws and regulations, and to sustain our strong ethical culture. It provides employee access to global policies and offers guidance on complex and sometimes ambiguous business and cultural situations. Ethics and compliance training are required for full-time salaried employees at least four times per year, and new salaried employees must complete a core curriculum of training courses. Training topics are focused on key compliance risks and expectations for employees. We measure our culture using questions embedded in our Employee Experience Survey, new hire surveys, and exit surveys. We have team members embedded in key geographies to provide consistent support for employees and the culture.

Our strong governance starts with our Board of Directors, and is built upon strong processes, rigorous audits, and on our employees and other stakeholders freely reporting concerns of actual or potential misconduct or other risks. To encourage such reporting, we have established the John Deere Compliance Hotline, operated by an independent company and available to receive confidential reports from anyone within or outside John Deere. To access country-specific Hotline information, employees can review the posters on display at each company location or go to the John Deere intranet. Anyone may access the John Deere Compliance Hotline through the website listed in the Code of Business Conduct and Supplier Code of Conduct.

We address all reports thoroughly and promptly. John Deere will not tolerate retaliation against any individual for making a report. This is true even if an investigation does not uncover any actual misconduct.

The Ethisphere Institute has recognized John Deere as one of the world's most ethical businesses 13 times since the award's inception.

"Integrity is a core value at John Deere and has been critical to our company's long history of success," said John May, Chairman and CEO at Deere & Company. "We remain committed to upholding the highest ethical standards and maintaining our reputation for doing business the right way."



# CYBERSECURITY AND DATA PRIVACY

At John Deere, we have seen a dramatic increase in data which is produced, collected, and analyzed. Properly managing and processing this data allows us to better run our enterprise, provide enhanced customer support, and offer better, more productive products and services for our customers.

Because of the importance of cybersecurity and data privacy, the Corporate Governance Committee and Audit Review Committee provide Board oversight. To ensure strong execution and engagement with the Board, we have established a Digital Risk Governance Council and an Executive Business Conduct Council, which provide senior leadership oversight of information security governance, data governance, digital risk management, and privacy.

We leverage the National Institute of Standards and Technology Cybersecurity Framework as the foundational building blocks of our global information security program. Our program focuses on assuring operational resilience and protecting

the information that has been entrusted to us by our customers, employees, dealers, and suppliers, as well as the data created by the enterprise.

Our data privacy program is constantly monitoring, adapting to, and working diligently to comply with changes in global privacy legislation. While the European General Data Protection Regulation and other regional and state regulations have brought increased requirements and more general awareness to privacy, we have long been focused on ensuring responsible use of personal data.

John Deere maintains its European Binding Corporate Rules, which are often considered the gold standard for the processing of personal data in the European Union. To accomplish this, we routinely submit significant parts of our privacy program for review by European regulators.



To see more of the story,  
visit [deere.com/trust](https://deere.com/trust)

# Supply Chain

At John Deere, we rely on strong, capable suppliers and a supply base that mirrors the diversity of all our stakeholders worldwide. For that reason, we are committed to continuously growing and developing small and diverse suppliers throughout the world.

## **COMMITMENT TO SUPPLIER DIVERSITY**

Since its inception in 1980, our Supplier Diversity program has attracted new and promising suppliers through our Prospective Supplier website, supplier outreach events, and conferences. Supply Management routinely works with suppliers to help develop and improve their manufacturing processes. Our goal is to actively work with suppliers to help them become more competitive in the industries they serve. We also continuously engage local and national councils and share best program practices. We want to continue to grow suppliers of direct material, indirect material, and logistics, and follow a strategy that will help the supply chain become more resilient and prosper.

Our program annually recognizes small and diverse suppliers who have demonstrated continued growth in expanding their business relationship with John Deere and lead the way in proactive innovative opportunities. We include small and diverse supplier awards each year and promote expansion of supply within our divisions.

We continue to focus on diverse suppliers by placing priority on growing our spending with existing suppliers while also looking to expand the supply base with new women- and minority-owned businesses. To further our commitment in this area, we added a role within Supply Management focused on developing deeper relationships with diverse suppliers and increasing our total business opportunities.

In 2020, we were able to expand business with a small woman-owned business by 300% to nearly \$1M and a small disadvantaged (minority owned) supplier by over 300% to over \$4.5M in spend.

## **SUPPLIER COMPLIANCE EXPECTATIONS**

We expect that all our suppliers treat workers with dignity and respect, provide safe working conditions, use environmentally responsible manufacturing processes, and adhere to the highest ethical standards. Our actions, including onsite supplier audits and supplier training as well as consistent and fair treatment of suppliers, demonstrate our commitment to supply-chain excellence.



Wallas Wiggins  
Vice President of  
Supply Management

To ensure suppliers conduct business with a high degree of integrity and in a socially and environmentally responsible manner, all our suppliers are expected to adhere to our Supplier Code of Conduct. Based on our own Code of Business Conduct, the Supplier Code of Conduct applies to all suppliers worldwide. Under the code, suppliers are expected to comply with child labor laws and must not engage in or support the use of forced or involuntary labor. They are expected to comply with all applicable local laws concerning discrimination in employment, provide safe working environments, and comply with safety and health laws and regulations.

Environmental compliance is a key expectation of our suppliers. Suppliers must ensure their operations comply with all laws related to air emissions, water discharges, toxic substances, and hazardous waste disposal. They are encouraged to have an environmental management system in place and to conduct their operations in a way that minimizes the impact on natural resources while protecting our customers, employees, and the environment.

At John Deere we have robust policies and procedures in place to ensure that both (1) controlled materials required in our supply chain and operations are managed properly, and that (2) restricted materials do not find their way in. There are three main avenues that John Deere uses to manage critical materials: our Supplier Code of Conduct, Supplier Audits, and our Restricted Materials List.

To verify that our suppliers are abiding by our high standards for compliance, we perform regular audits of their processes and procedures. We complete a quality and compliance audit on all new direct material suppliers and re-audit based on any known issues, new manufacturing locations or other key indicators. Supply Management completes an annual Conflict Minerals review for

over 70% of our total purchased volume each year. Due diligence to address any identified concerns is completed and suppliers are driven to eliminate any potential issues within their supply chain.

John Deere files its Conflict Mineral report with the SEC annually. Supply Management also completes RoHS and REACH surveys with our supply base for required material as new parts are required. For all compliance processes, John Deere Supply Management maintains all problems and nonconformances in our Supply Chain Risk Management system where corrective action plans are established and followed up on under a defined schedule.

To see further details about the critical materials within our supply chain, and how we manage the risks associated with those materials, please refer to the [SASB Appendix](#).

Additionally, our suppliers are expected to be familiar with the business practices of their own suppliers and subcontractors and ensure that they, too, operate in accordance with the Supplier Code of Conduct. John Deere provides a reporting process through which suppliers can anonymously report potential violations.

#### ACHIEVING EXCELLENCE PROGRAM

The John Deere Achieving Excellence program evaluates a supplier's performance in quality, delivery, cost management, and technical support and includes all requirements of the Supplier Code of Conduct. We proactively monitor suppliers to mitigate risks of a negative impact on human rights, health, safety, or the environment, and we take measures to ensure that our suppliers conduct business in an ethical manner. A supplier's environmental sustainability efforts are key measurement in the John Deere Achieving Excellence program.



**SUPPLIERS BY THE END OF OUR FISCAL YEAR 2022  
REACHED THROUGH THE ECOVADIS PLATFORM**

**ASSESSING AND IMPROVING SUPPLIER PERFORMANCE**

We utilize a risk-management tool to monitor supplier risks for compliance, financial health, performance, and event and business continuity planning. We monitor activity related to the Supplier Code of Conduct, including compliance to environmental assessments, and all other compliance issues reported through other channels. This improves transparency and risk management in the supply chain.

We employ a robust and formal audit, assessment, and verification program for suppliers and potential new suppliers. Many on-site audits include a compliance verification section that covers all requirements of the Supplier Code of Conduct.

In the event of non-compliance, we utilize a formal internal corrective action process. Programs and processes are formalized through the John Deere Supplier Qualification System and Non-Conformance & Corrective Action Process.

In 2020, John Deere engaged EcoVadis, a recognized global leader in corporate Social Responsibility and Sustainability ratings, to assess the sustainability performance of key suppliers in our supply chain. Over 400 logistics and material suppliers have been asked to complete the sustainability assessment. Plans are in place to reach over 1,000 suppliers by the end of our fiscal year 2022, which will encompass over 60 percent of our material spend for the corporation.

Our Supply Chain Sustainability initiative will provide a high level of transparency to the sustainable performance of our supply base, while helping improve our overall corporate performance. We will accomplish this by driving suppliers to improve their sustainability performance, fully incorporating the sustainability scorecard into our procurement processes, and providing supplier awards and recognition for improved CSR scores within our Achieving Excellence supplier evaluation process.



To see more of the story, visit our [Restricted Materials List](#)



# ECOVADIS: SUPPLIER SUSTAINABILITY RATINGS

To improve the sustainability performance of our supply chain, we collaborate with EcoVadis, a global leader in business sustainability ratings. EcoVadis' assessment model has been refined over decades by their sustainability experts. Suppliers are assessed using an online questionnaire customized to industry, country of operations, and size.

The assessment model is organized into four themes: environment, ethics, labor and human rights, and sustainable procurement. The methodology covers an additional 13 CSR & Sustainability criteria on top of the following eight covered in the John Deere Supplier Code of Conduct.

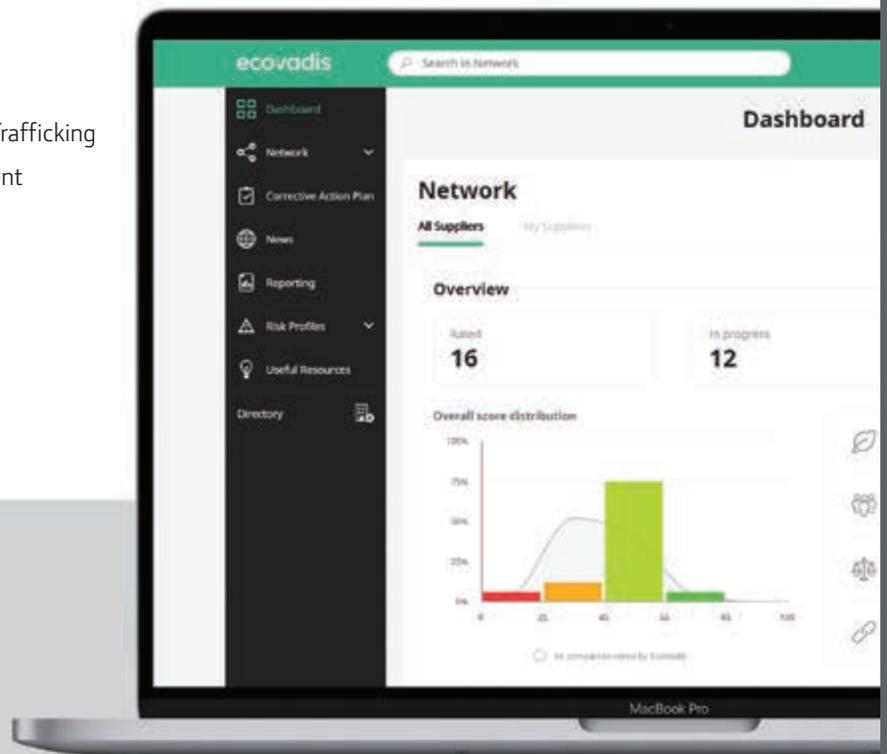
- Employee Health and Safety
- Working Conditions
- Child Labor, Forced Labor, and Human Trafficking
- Diversity, Discrimination, and Harassment
- Corruption
- Responsible Information Management
- Environmental Practices
- Social Practices

Results are published in an actionable scorecard, along with benchmarks and detailed feedback of strengths and improvement areas in each of the four themes.

Our work with EcoVadis covers a significant portion of our global supply base. John Deere will utilize the EcoVadis scorecard results to enhance our procurement processes, enable higher levels of collaboration with our suppliers on sustainability issues, identify and mitigate supply chain risks, provide additional evaluation criteria in our Achieving Excellence supplier ratings, and — most importantly — to increase John Deere's ability to positively impact the global environment.

## Four Themes of EcoVadis' Assessment Model

-  Environment
-  Ethics
-  Labor and Human Rights
-  Sustainable Procurement



# POLITICAL PARTICIPATION

At John Deere, we believe that participating in democratic political processes around the world and advocating for public policies that permit us 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.

In compliance with U.S. federal and state election laws, John Deere administers the John Deere Political Action Committee (JDPAC), a voluntary, non-partisan group comprising U.S. employees. JDPAC members voluntarily pool their personal financial contributions to support select federal and state office candidates who understand and support the general business interests of our company, customers, employees, and stakeholders. Under federal law and company policy, participation in JDPAC is limited to U.S. administrative and executive-level employees.

Except for administrative expenses, JDPAC is funded solely by John Deere employees and not supported by funds from John Deere itself. The company does not reimburse employees directly or indirectly for political contributions, including contributions to JDPAC.

Oversight of JDPAC's contributions and related activities are governed by its board of directors, comprised of 13 John Deere

employees from throughout our various business units. JDPAC does not engage in legislative matters or lobbying activity. Further, JDPAC does not seek to influence any particular vote through contributions.

JDPAC fully discloses all contributions made and received through reports filed with the Federal Election Commission and various state ethics commissions, as required by law. For transparency, John Deere posts an annual report on our website summarizing JDPAC contributions made in the most recent calendar year or election cycle, categorized by state, candidate, and amount. To view the annual report for the 2019–2020 election cycle, [please click here](#)

Political spending by John Deere reflects our business interests and is used to further our public advocacy goals. John Deere complies with federal, state, and local campaign finance laws and regulations governing political contributions and the disclosure of these contributions. Consistent with U.S. federal law, John Deere does not contribute corporate funds to federal candidates, national political party committees, or other federal political committees. For example, even when permitted by applicable law in connection with certain state and local elections, we do not use corporate assets to support or oppose any candidate for political office or ballot measure. The company does, however, reserve the right to make

exceptions to this practice so long as any contribution we make is consistent with our public policy agenda, in accordance with our Code of Business Conduct, and previously approved by our Chairman & Chief Executive Officer, and Senior Vice President, General Counsel & Public Affairs. John Deere does not pay for any independent expenditures or electioneering communications, as those terms are defined by applicable law. In the interest of transparency for our shareholders and other stakeholders, we publicly disclose and update annually our corporate political contributions. John Deere did not make any political expenditures out of corporate assets in the 2019 or 2020 calendar year. John Deere belongs to several trade and industry associations and pays regular dues to these groups. We join trade associations in part to join other like-minded companies in engaging in public education and advocacy efforts regarding major issues of common concern to our industries.

Our participation in trade associations is subject to management approval and oversight. We publicly disclose and update annually a list of those U.S. trade associations to which John Deere pays dues or makes other contributions of \$50,000 or more, as well as the portions of such dues or payments that are not deductible under Section 162(e)(1) of the Internal Revenue Code. To view the annual report for U.S. trade association memberships and expenditures, [please click here](#)

## 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.

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, 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 emission 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 bio-energy 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) impact of the COVID-19 and other pandemics on the company's operations and strategies. 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. 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 other filings with the 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).

# DATA TABLE

Unless otherwise noted, all metrics are determined on a fiscal year basis.

ENVIRONMENTAL	2020	2019	2018
Energy Consumption (MWh) <sup>1,2</sup>	3,090,000	3,480,000	3,550,000
% Renewable Electricity <sup>1,2</sup>	32%	25%	24%
Scope 1 emissions (metric tons CO <sub>2</sub> e) <sup>1,2</sup>	333,000	388,000	386,000
Scope 2 (market-based) emissions (metric tons CO <sub>2</sub> e) <sup>1,2</sup>	433,000	533,000	581,000
Water Consumption (megaliters) <sup>2</sup>	20,246	23,000	24,500
% of Waste Recycled <sup>2</sup>	78%	78%	80%
Total Waste (metric tons) <sup>2</sup>	88,222	108,647	...
Hazardous Waste (metric tons) <sup>2</sup>	7,999	13,360	...
# of ISO14001 manufacturing sites certified <sup>3</sup>	13	...	...

<sup>1</sup>Apex Companies, LLC has verified greenhouse gas (GHG) emissions data in accordance with the ISO 14064-3: Greenhouse gases -- Part 3: Specification with guidance for the validation and verification of greenhouse gas statements assurance standard and water and waste data in accordance with the ISAE 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information assurance standard.  
<sup>2</sup>Data associated with the operation of Unimil, P.L.A. Holding Netherlands B.V. and King Agro Europa, S.L., and their related subsidiaries, and the Wirtgen Group entities are not included in the reported 2019 and 2020 metrics. In addition, data associated with the operation of Unimil, Mazzotti S.r.l. and Blue River Technology, Inc. are not included in the reported 2019 and 2020 occupational safety, water, and waste metrics. Scrap metal and foundry sand are excluded from waste metrics.  
<sup>3</sup>Manufacturing correlates to definition in our Form 10-K

SOCIAL	2020			2019			2018		
Number of Employees	69,600			73,500			74,000		
<b>Gender Diversity</b>	<b>Female</b>	<b>Male</b>	<b>Unidentified<sup>a</sup></b>	<b>Female</b>	<b>Male</b>	<b>Unidentified<sup>a</sup></b>	<b>Female</b>	<b>Male</b>	<b>Unidentified<sup>a</sup></b>
Board of Directors	27.3%	72.7%	...	18.8%	81.2%	...	...	...	...
Senior Management <sup>5</sup>	15.3%	84.7%	...	...	...	...	...	...	...
Management	20.2%	79.8%	...	...	...	...	...	...	...
General Workforce	19.2%	80.7%	0.1%	19.4%	80.6%	...	19.0%	81.0%	...
Salaried	27.0%	72.9%	0.1%	27.1%	72.9%	...	27.1%	72.9%	...
Production	11.6%	88.3%	0.1%	11.5%	88.5%	...	11.3%	88.7%	...

Racial and Ethnic Diversity 2020	American Indian or Alaskan	Asian	Black or African American	Hawaiian or Pacific Islander	Hispanic or Latino	Multiple Races	White	Unidentified <sup>a</sup>
Board of Directors	...	9.1%	18.2%	...	...	...	72.7%	...
Senior Management <sup>5b</sup>	...	8.3%	6.7%	...	3.3%	...	81.7%	...
Management <sup>8</sup>	0.4%	4.0%	2.7%	0.1%	2.6%	0.3%	89.5%	0.4%
General Workforce <sup>8</sup>	0.5%	3.3%	5.7%	0.1%	3.3%	0.5%	85.8%	0.8%
Salaried <sup>8</sup>	0.3%	5.9%	2.6%	0.0%	3.1%	0.4%	86.7%	1.0%
Production <sup>8</sup>	0.6%	0.7%	8.8%	0.1%	3.6%	0.6%	84.9%	0.7%

	2020	2019	2018
<b>Turnover Rate</b>			
Overall	5.0%	4.7%	...
Salaried	5.8%	3.3%	2.9%
Production	4.2%	6.2%	5.8%
% of part time and student employees	1.4%	...	...
Training hours per FTE	19.8	...	...
Total Recordable Incident Rate <sup>6</sup>	1.32	1.65	1.68
Lost Time Frequency Rate <sup>6</sup>	0.32	0.33	0.27
Fatality Rate <sup>6</sup>	0.001	...	...
Near Miss Frequency Rate <sup>6</sup>	15.03	...	...
# of ISO9001 manufacturing sites certified <sup>7</sup>	44	...	...
Charitable Contributions (millions USD)	\$36.7	\$37.8	\$38.3
Charitable Contributions (% of Net Income)	1.4%	1.9%	2%
Volunteer Hours	123,033	215,262	185,830

<sup>a</sup>Unidentified indicates employees did not report  
<sup>b</sup>Does not include administrative professionals  
<sup>5</sup>Rate is per 100 employees  
<sup>6</sup>Manufacturing correlates to definition in our Form 10-K  
<sup>8</sup>US Only

GOVERNANCE	2020	2019	2018
Total Compliance Training Course Completions	247,189	236,020	...
# of suppliers	4,533	...	...
# of supplier audits	402	...	...

2019-2020

# Awards

**America's Most JUST Companies**

*JUST 100*

**Best Place to Work**

*Glassdoor*

**Agritechnica Gold Medal Award**

*John Deere eAutoPowr Transmission*

**Tech For a Better World, Innovation Award Honoree**

*Consumer Electronics Show*

**Best of CES Sustainability Award**

*GadgetMatch*

**Best Global Brands**

*Interbrand*

**World's Most Ethical Companies**

*Ethisphere*

**Top Employer**

*John Deere France (Top Employers Institute)*

**Best Workplaces for Innovators**

*Fast Company*

**50 Sustainability & Climate Leader**

*Bloomberg*

**8R Series Tractor Awards**

*Red Dot Award*

*iF Design Award*

*Sustainability Product of the Year (Business Intelligence Group)*

