



# Impact: Sustainability at CF Industries 2021



# A Message from Our CEO

## To Our Stakeholders:

At our core, the business of CF Industries is ammonia. We are the world's largest manufacturer of ammonia. We extract nitrogen from the air and combine it with hydrogen from natural gas to form the ammonia molecule, whose chemical composition is  $\text{NH}_3$  — one part nitrogen, three parts hydrogen. We can sell ammonia itself or upgrade it through additional manufacturing processes into products such as granular urea, urea ammonium nitrate solution (UAN), or diesel exhaust fluid (DEF).

The ability to produce ammonia at scale has been very good for humanity and is considered one of the most impactful inventions of the 20<sup>th</sup> century. This is because more than 80% of ammonia is used as a fertilizer itself or as a fertilizer in its upgraded forms. The use of ammonia as a fertilizer significantly increases crop yields. Along with seed advancements and farming practice improvements, the use of ammonia and other nitrogen fertilizers has helped increase food production, enabling the lives of billions and improving quality of life dramatically. The annual rate of people dying due to famine globally per decade declined nearly 99% from the 1960s to the 2010s.

**"Our team has a deep commitment to safety excellence, helping drive a full year recordable incident rate of 0.32 incidents per 200,000 work hours, which is significantly better than industry averages. We also focus on fostering an inclusive and diverse culture at CF Industries so that we not only safeguard each person's physical well-being every day, but also their personal well-being — helping each other feel welcomed, valued and inspired to do our best work."**

**Tony Will,  
President and Chief Executive Officer**



The ability of CF Industries to produce ammonia has been very good for our stakeholders as well. CF Industries' 3,000 employees enjoy well-paying jobs with outstanding benefits and opportunities for growth and development. Our team has a deep commitment to safety excellence, helping drive a full year recordable incident rate of 0.32 incidents per 200,000 work hours, which is significantly better than industry averages. We also focus on fostering an inclusive and diverse culture at CF Industries so that we not only safeguard each person's physical well-being every day, but also their personal well-being — helping each other feel welcomed, valued, and inspired to do our best work.

We are committed stewards of the environment. Our focus on safe, efficient, and environmentally responsible operations protects and enhances the natural resources we use in our processes and that are near our facilities.

Our operations have a direct and positive impact on the communities in which we live and work. We estimate that for every CF Industries employee, another seven jobs are supported locally. In 2021, we spent more than half of our procurement dollars — approximately \$657 million dollars — on suppliers located within 50 miles of our facilities. We are also active members of our communities, supporting local groups with Company donations, employee-led fundraising efforts, and volunteer activities.

### Our Clean Energy Strategy

Today, we are focused on building on this track record by helping develop a market for ammonia as a source of clean energy.

As countries around the world work to reach net-zero carbon emissions by 2050, hydrogen has emerged as

a leading source of clean energy. Ammonia, due to its hydrogen component, can be a clean fuel itself as it does not release any carbon when used as an energy source. Ammonia also could serve as a medium to store and transport hydrogen.

To enable this future, we have committed to addressing the carbon footprint associated with ammonia production. While our plants are among the most efficient in the global industry, the ammonia production process is nevertheless energy-intensive and therefore results in significant carbon emissions today. This is a challenge that we regularly engage stakeholders about.

As a result, meeting the challenge of climate change is at the center of our strategy, which is to leverage our unique capabilities to accelerate the world's transition to clean energy. This commitment provides a long-term growth platform for the Company, as well as doing our part to make the world more sustainable.

We will decarbonize our network, including producing ammonia from carbon-free sources (green ammonia) and ammonia produced conventionally with the CO<sub>2</sub> byproduct captured and permanently sequestered (blue ammonia). These are more than promises: we have committed \$385 million in capital through 2025 to advance these initiatives.

As we aggressively scale our ability to produce green and blue ammonia, we will position CF Industries at the forefront of clean hydrogen and clean ammonia supply. This approach builds on our existing business. We will still provide energy to agriculture end-users in the form of ammonia and derivative nitrogen fertilizers. But we are also pursuing the growth opportunities available from providing clean energy for power generation in the form of ammonia.

### Accountability and Transparency

Our strategy of accelerating the world's transition to clean energy is linked to a comprehensive set of ESG goals. These commitments include a dramatic reduction in carbon emissions across our global network to achieve net-zero carbon emissions by 2050 and an intermediate goal of a 25% reduction in emissions intensity by 2030. Our ESG goals also encompass other issues important to CF Industries and its stakeholders, including diversity and inclusion, safety, food security, nutrient management, and community involvement. Our complete list of ESG goals can also be found at [www.cfindustries.com](http://www.cfindustries.com).

Given the critical importance of these efforts to the Company, shareholders, and stakeholders, our Board of Directors aligns executive compensation directly to ESG objectives. Management also benefits from the oversight of the Board, including two committees with a focus on specific ESG-relevant areas: one that has oversight over inclusion, diversity and equity (ID&E) matters and employee well-being initiatives and another that oversees the Company's clean energy initiatives and progress toward net-zero carbon emissions, community involvement efforts, and overall accountability for meeting the Company's ESG objectives.

We communicate our performance in these areas and others through our annual ESG and sustainability reporting, which include our submissions under the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB) framework, and the Task Force on Climate-related Financial Disclosures (TCFD). Additionally, we remain committed to make the UN Global Compact and its principles part of the

strategy, culture, and day-to-day operations of our company and to engage in collaborative projects that advance the UN Sustainable Development Goals (SDGs).

### Our Bright Future

CF Industries has a long history of creating value for all our stakeholders. We believe we have an opportunity to help create a better world not just through the products we make and the way we operate, but also through empowering our employees, strengthening our culture of inclusive leadership, and supporting our communities.

As you will see in the following pages, we remain focused on realizing the promise of what CF Industries can offer the world. We expect that, as we execute our strategy to leverage our unique capabilities to accelerate the world's transition to clean energy, we will have an even greater positive impact on the world around us.

Thank you for your interest in CF Industries. We look forward to working with you as we advance our shared commitment to a more sustainable world.



Tony Will, President and CEO

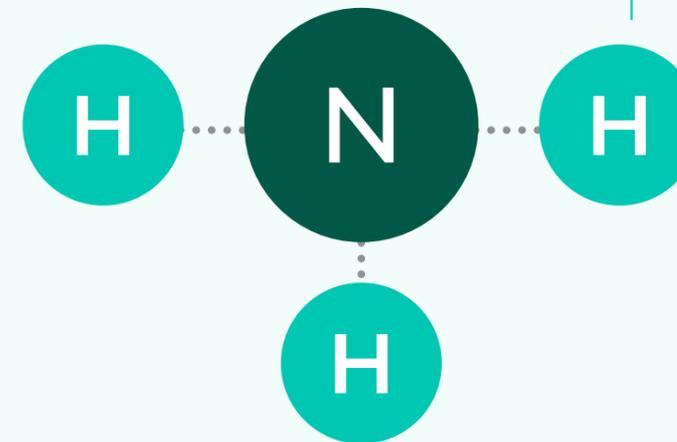
# Positioned for Global Impact

As the world's largest producer of ammonia, CF Industries plays a central role in addressing critical, wide-reaching issues. For more than 75 years, that has included producing agricultural fertilizer to help farmers in securing the global food supply for a growing population. Today, it means continuing that work while enabling ammonia's full potential as a clean energy source.

Although ammonia is simply microscopic atoms grouped together, it makes a macro impact

Ammonia is one-part nitrogen, three-parts hydrogen

For over 100 years, the ammonia molecule has been valued for its nitrogen content, which is critical to plant growth and increases crop yields. Ammonia, and the nitrogen fertilizers made from it, help make possible an estimated 50% of the world's food, allowing more food to be grown on less land and enabling billions of lives.



In the near future, the ammonia molecule is expected to be valued for its hydrogen content. Hydrogen is widely regarded as a clean source of energy today. Ammonia's hydrogen content makes it suitable as a clean fuel that could displace carbon-intensive petroleum products or as a highly efficient mechanism for transporting and storing hydrogen for clean energy purposes.

What will it take to go from **here** to **there**?  
**Decarbonizing the ammonia production process.**

# Our ammonia has helped address critical issues for more than 75 years



**1946**

For 75 years, we've produced the agricultural fertilizer farmers need to feed the world.



**Present Day**

Today, we're continuing that work while enabling ammonia's full potential as a clean energy source.



The global focus on climate change and greenhouse gas (GHG) emissions has created a push to clean up industries and make them more sustainable. To do this, the world needs additional sources of clean energy, particularly those that can be stored and transported efficiently. That includes hydrogen, which is abundant in the ammonia we produce and has emerged as a leading clean energy source to help the world achieve net-zero carbon emissions by 2050.

For carbon-intensive industries, switching their fuel source to ammonia today would dramatically reduce their carbon emissions, as ammonia does not emit greenhouse gases when burned. But realizing the full benefit of ammonia as a clean fuel requires taking steps to decarbonize the ammonia production process.

## Switching to ammonia as a fuel source could drastically reduce the emissions of a range of industries

### Agriculture

Agriculture represents **10%** of U.S. greenhouse gas emissions. The use of net-zero carbon fertilizers not only can reduce agriculture's carbon footprint, but it also has the potential to create new value for farmers from demand for crops with low-carbon footprints.

### Marine Shipping

The marine shipping sector emits **one billion** metric tons of carbon dioxide each year from its use of bunker fuel. That's roughly equal to the emissions from all passenger vehicles in the U.S. Many in the shipping industry are exploring replacing the fossil fuel they use today with blue ammonia to eliminate carbon emissions.

### Power Generation

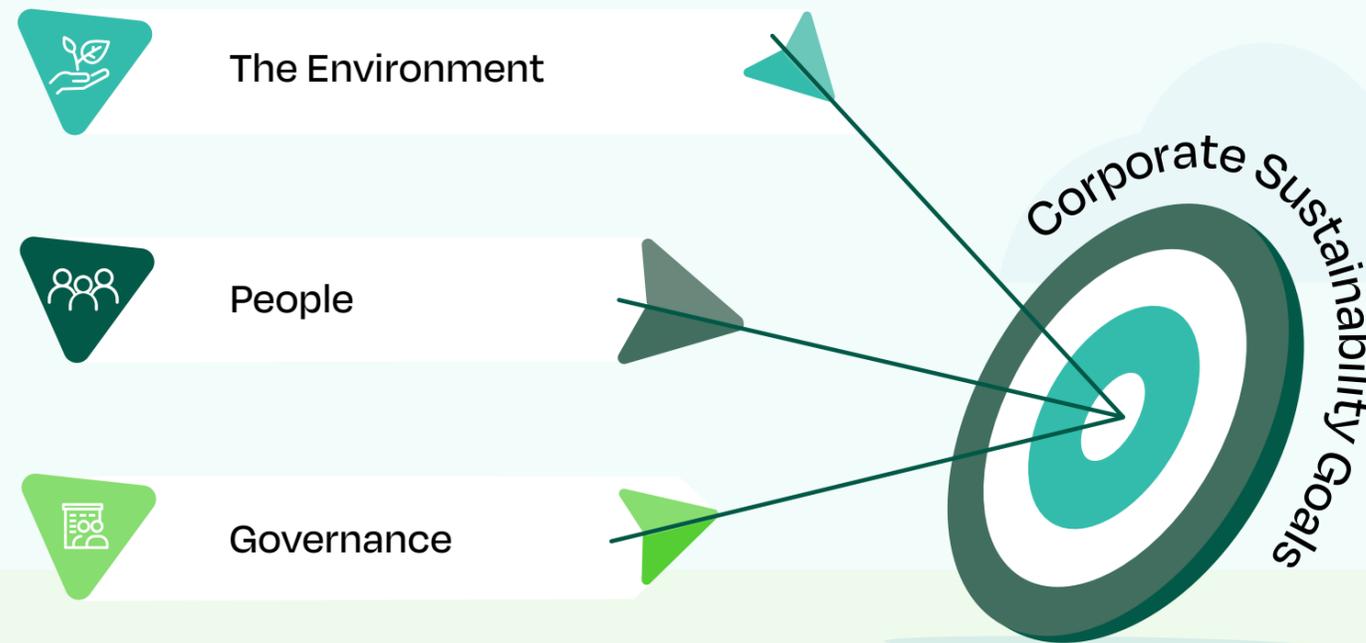
Coal-fired power plants account for **30%** of all energy-related carbon dioxide emissions, according to the International Energy Agency. Several countries are exploring integrating ammonia into a coal power generation process — known as co-firing — to dramatically reduce emissions from these plants. A pilot project is underway in Japan.

Accelerating the world's transition to clean energy is the center of our strategy. To do this, we have committed to decarbonize our ammonia production network and are working to develop a market for decarbonized ammonia as a fuel source in ways that are practical and achievable now.

In addition to environmental considerations, we continuously focus on improving the ways in which we impact people (social considerations) and conduct our business (corporate governance). Examples include implementing a Volunteer Time Off ("VTO") program and requiring 100% of employees to be trained on Inclusion, Diversity & Equity (ID&E) matters. Our environmental, social, and governance (ESG) efforts are collectively organized around the pursuit of our corporate sustainability goals.



## CF Industries' sustainability efforts explained:



We developed the goals you will find throughout this report carefully, ensuring they are meaningful and that our progress toward them can be accurately measured. Further, the goals were developed with the United Nations' Sustainable Development Goals (UN SDGs) in mind. The UN SDGs are a roadmap for creating global peace and prosperity supported by the nearly 200 countries comprising the United Nations and many large international companies like CF Industries.

All CF Industries' stakeholders — the individuals, organizations, communities, and others who touch our business — are important to our success. But it's our global workforce, guided by our Do It Right culture, who play the most critical and immediate role in accomplishing our goals and expanding our impact. Their importance is why we prioritize workplace health and safety, ID&E, and professional development, and why we continuously ask for feedback, listen, and act.

At CF Industries, our vision is to be a global leader providing clean energy for a better world, and we are well on our way.

# Our Business

At CF Industries, our mission is to provide clean energy to feed and fuel the world sustainably. With more than 3,000 employees focused on safe and reliable operations, improving our environmental impact, and a disciplined approach to performing our work, we are on a path to decarbonizing our ammonia production network — the world’s largest — to provide clean solutions for energy, fertilizer, emissions abatement, and other industrial activities. We have 9 manufacturing complexes in the U.S., Canada, and the U.K., as well as unparalleled storage, transportation, and distribution networks. We are headquartered in Deerfield, Illinois, outside Chicago.

## At CF Industries, our business and impact span the world



At our core, CF Industries is a manufacturer of ammonia. Ammonia is most often used as a fertilizer itself or is upgraded into other nitrogen fertilizers, such as granular urea and urea ammonium nitrate solution. Like other producers of ammonia, we use the Haber Bosch process, considered one of the most impactful innovations of the 20<sup>th</sup> century, which synthesizes nitrogen from the air with hydrogen.

In addition to Green Revolution seed enhancements and farming practice improvements, the growing use of nitrogen and other fertilizers dramatically improved food production in the second half of the 1900s. Food security and quality of life

improved as well. The annual rate of people dying due to famine globally per decade declined nearly 99% from the 1960s to the 2010s.

As such, our team and the products we make play a direct and vast role in ensuring the world’s population has enough food to eat. Our fertilizer also limits the destruction of forests, which play a role in offsetting greenhouse gas emissions by sequestering, or naturally capturing, carbon dioxide (CO<sub>2</sub>). Ammonia and its upgraded products are also used for emissions control and other industrial processes.

# Our Strategy

Our Vision, Mission, and Strategy are reinforced by our Core Values:

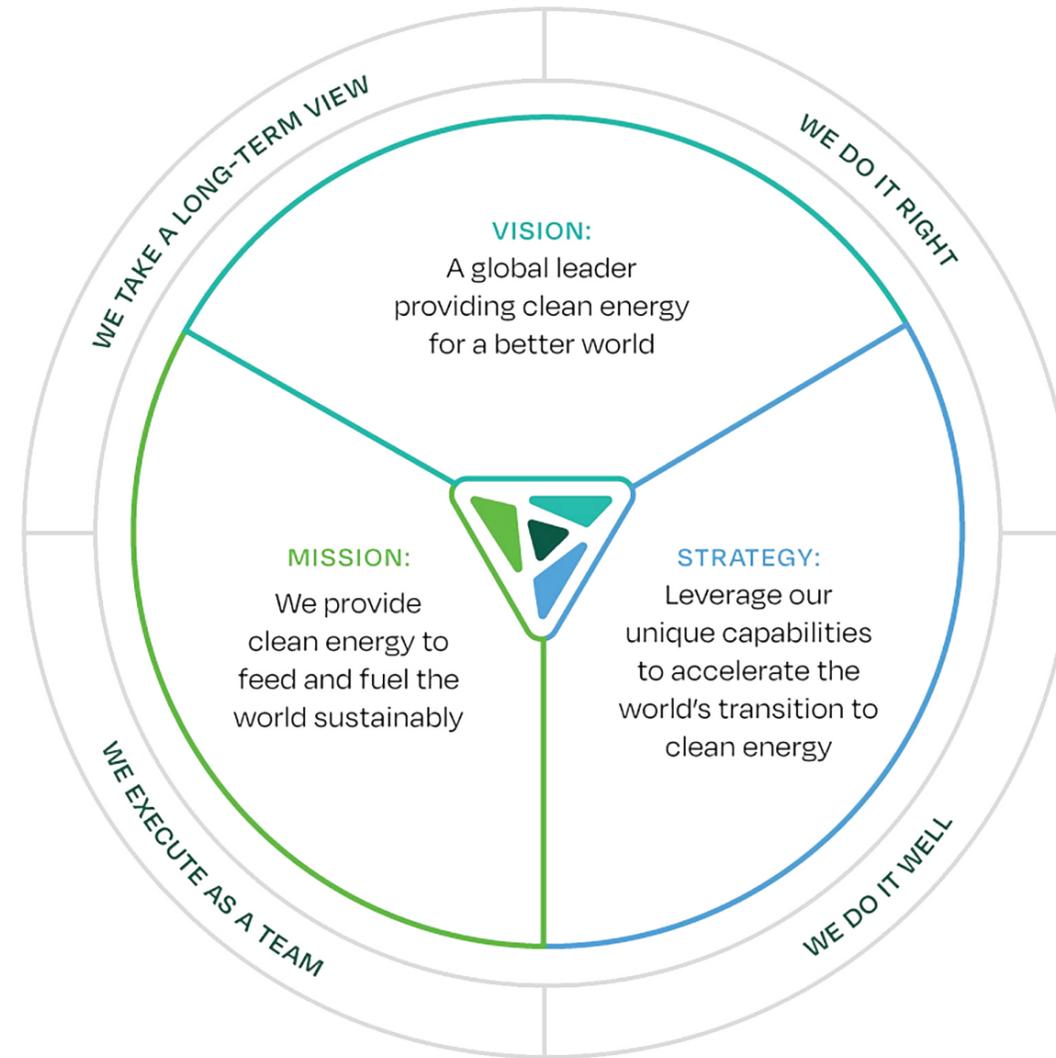
*WE DO IT RIGHT*

*WE DO IT WELL*

*WE EXECUTE AS A TEAM*

*WE TAKE A LONG-TERM VIEW*

These values are our foundation as we work for the greater good of our Company and our world.



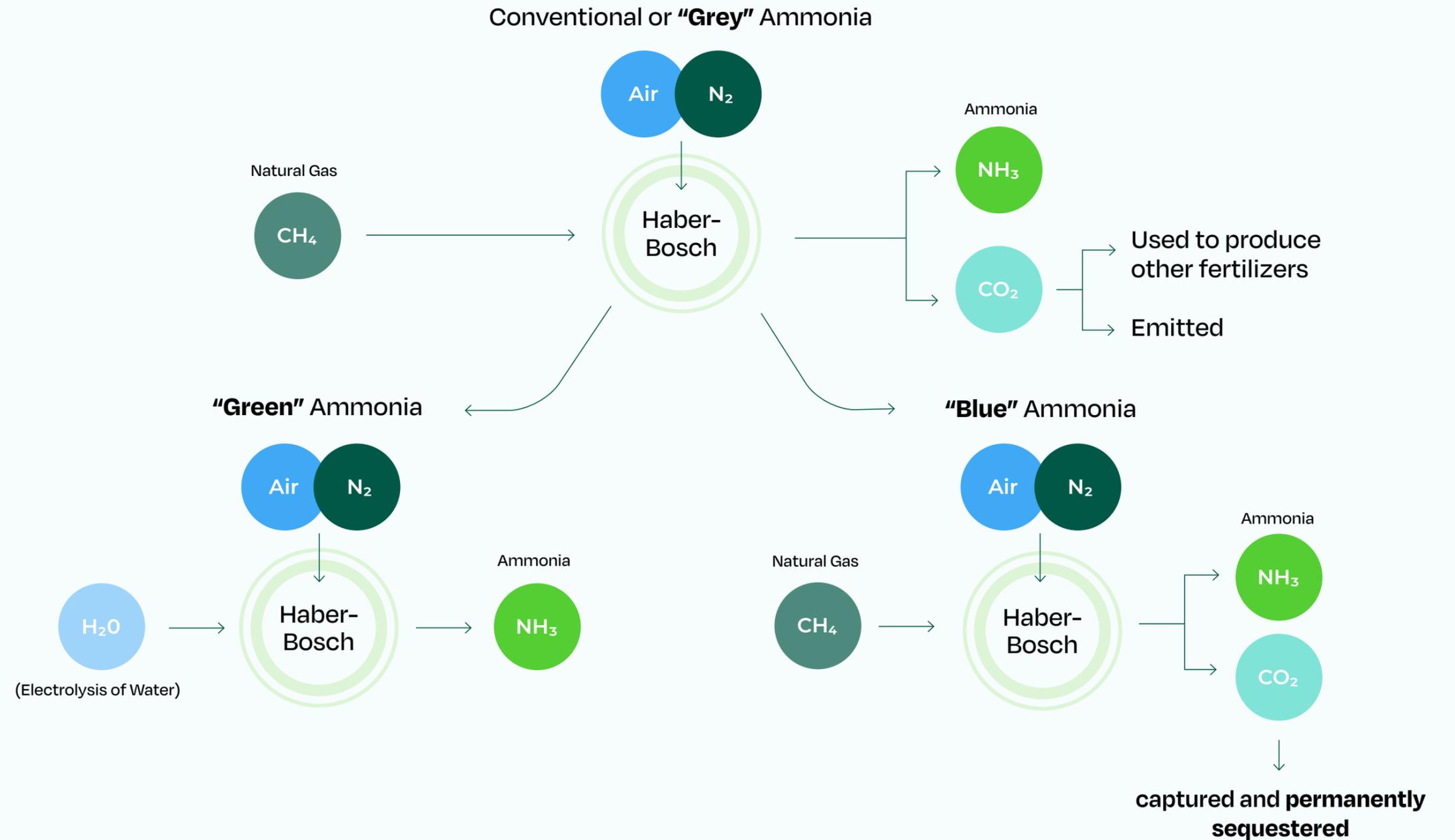
# Decarbonizing Ammonia Production

CF Industries actively manages our network to reduce our carbon emissions intensity through choice of feedstock, investing in safety, efficiency, and reliability, and maximizing capacity utilization. In 2020, we committed to decarbonizing our ammonia production network, underpinned by a set of public goals. These include a goal of reducing total CO<sub>2</sub> equivalent emissions by 25% per ton of product by 2030 and achieving net-zero carbon emissions by 2050.

In 2020, we also set a goal of developing and prioritizing a list of viable greenhouse gas-reduction capital projects across our facilities and looked to our employees for help. In 2021, working groups at each manufacturing site identified over 400 different projects and set about assessing the economic and technical viability of each one. As the result of this process, we have identified a list of approximately 40 projects that provide a roadmap to achieve our decarbonization goals over time.

In line with this approach, we are pursuing two approaches — blue and green ammonia — to eliminate carbon emissions from ammonia production in order to provide customers product that they can use to decarbonize their own businesses. CF Industries is committed to spending \$385 million through 2025 to enable the production of green and blue ammonia at its production network.

## Pathways to Net-Zero Carbon Ammonia



# Our Team

CF Industries is powered by our Do It Right culture, a culture anchored in quality work, long-term thinking, and supportive communities. CF Industries employees embody our **Do It Right** culture in ways both big and small every day, enabling our global scale and on-the-ground agility.

# 3000

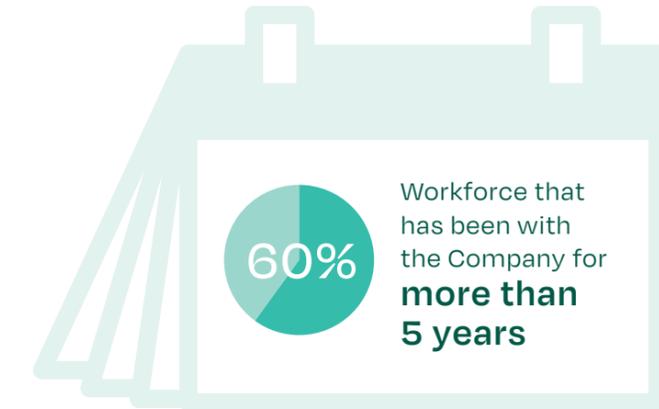
STRONG



We employ one of the **highest-performing teams** in the industry — known for their devotion to operational excellence



Workforce employed on a **full-time basis**

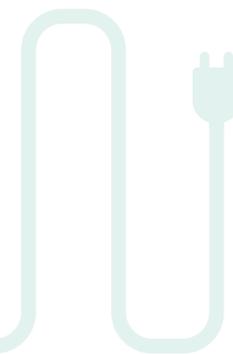


Workforce that has been with the Company for **more than 5 years**



# 50

**POSITIONS** that work directly on **clean energy solutions**



MORE THAN

# 60



Engagements with coalitions, associations, and partner organizations across industries around the world, including **agriculture, hydrogen, water, chemical, shipping, and trade**



# 45%

Workforce offered skill-based career pathway opportunities that pay

# \$127,000

per year on average



Manufacturing complexes across the **U.S., Canada, and the U.K.**



# Key Areas Driving Our Success

In addition to strengthening our industry-leading team, CF Industries strives to unite all stakeholders around a mutual understanding of where we are headed as an organization and the role we each play. We are bonded together through our:

## VISION

To be a global leader in providing clean energy for a better world

## MISSION

To provide clean energy to feed and fuel the world sustainably

## STRATEGY

To leverage our unique capabilities to accelerate the world's transition to clean energy

These ambitions build on past success and guide us forward, requiring collective efforts that evolve over time. To be effective and Do It Right, we must stay focused on steady progress in the areas where our Company and employees can make the greatest possible impact. Achieving our goals requires a well-defined approach from our entire team, an approach informed by our Vision, Mission, and Strategy as well as our conversations and engagement with stakeholders.

We identify relevant stakeholders as those individuals and/or groups whom our people, facilities, and products impact directly. Examples of stakeholders include employees, customers, farmers, policymakers, government officials, nongovernmental organizations (NGOs), shareholders, suppliers, and the communities in which we operate. Through ongoing conversations, we have determined four sustainability areas: Environment, Safety, Workforce, and Community. These areas are of great priority to our stakeholders, and we believe our excellence and progress made in these areas will strengthen our business and ensure we achieve our goals.



## Environment

Realizing our Vision of a better world starts with reducing our emissions footprint and that of our customers.

### GOAL

Reduce our total CO<sub>2</sub> equivalent emissions by 25% per ton of product by 2030.

### Why it's important

CF Industries is committed to helping minimize global warming.

### Impact in 2021

Our emissions intensity – measuring our Scope 1 greenhouse gas emissions for every ton of gross ammonia produced – was 1.96, a reduction of 14% compared to 2015, our baseline year for comparison.

[Learn more about our Environment-focused efforts >](#)

## Safety

Carrying out our Mission requires a healthy, safe, and productive team.

### GOAL

At least 95% of the aggregated safety grades of all employees at manufacturing and distribution sites must be a "B" or better for the year.

### Why it's important

We are responsible for keeping our people, who are essential to our operational and financial performance, safe every minute of every day.

### Impact in 2021

Our year-end recordable incident rate was 0.32 incidents per 200,000 work hours, significantly better than industry averages.

[Learn more about our Safety-focused efforts >](#)

## Workforce

Developing the best possible Strategy requires inclusive leadership and supporting the growth of employees as both individuals and teams.

### GOAL

ACHIEVED

Increase representation of females and persons of color in senior leadership roles (director level and above) to at least 30% by the end of 2025.

### Why it's important

Our team is at its best when everyone is supported, heard, and has opportunities to learn and grow.

### Impact in 2021

Exceeded our representation goals for senior leadership positions and expanded our ID&E efforts, including launching our first Inclusion Resource Group.

[Learn more about our Workforce-focused efforts >](#)

## Community

Being a leader means being a good citizen and supporting the communities where we live and work.

### GOAL

Achieve 25% employee participation in the Volunteer Time Off program by the end of 2025.

### Why it's important

Making a positive impact in the communities where we operate supports recruitment, retention, and our overall business strategy.

### Impact in 2021

We continued to develop our corporate philanthropy program, with monetary and in-kind donations in 2021 reaching \$3.2 million, similar to 2020.

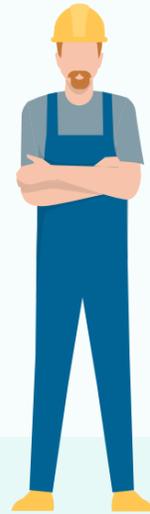
[Learn more about our Community-focused efforts >](#)

# Accomplishing Our Goals Together

Strengthening our commitments to the environment, safety, and our people, both within CF Industries and our communities, isn't just about doing the right thing; it's about evolving our business for a changing and better world. Climate change and important social justice conversations have highlighted the need for efforts that stimulate discussion and drive improvements across the environmental, social, and governance elements of our organization.

These programs are not for our Senior Leadership Team or investors; they are created by and for the people of CF Industries. We want the engagement and feedback of all stakeholders to reach our goals.

## CF Industries welcomes and actively seeks engagement and feedback from all stakeholders in the pursuit of our sustainability efforts



### Current CF Industries Employees

Can advance their skills and contributions by participating in learning and development courses.



### Community Partners

Can identify opportunities to increase our mutual impact.



### Customers

Can inquire about the implications of our clean energy solutions. We actively listen to our customers and are responding to their desire and demand for clean energy solutions that are practical for their industries.

Our shared experience has demonstrated that **when we pull together, we can create real change, positively impacting not only CF Industries and our surrounding communities but the world at large.**

The remainder of this report provides an in-depth look at our four priority areas — Environment, Safety, Workforce, and Community — and the many ways in which our team continues to progress.

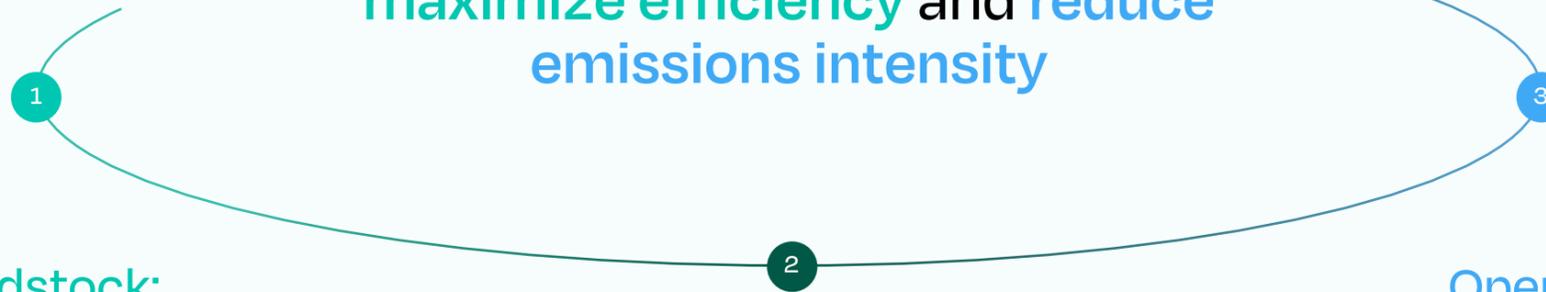


# Environment

Sustainability Goals	UNSDGs	
During 2021, develop and prioritize a list of viable <b>GHG reduction capital projects</b>	<b>7</b> AFFORDABLE AND CLEAN ENERGY 	<b>9</b> INDUSTRY, INNOVATION, AND INFRASTRUCTURE 
Reduce CO <sub>2</sub> equivalent emissions by <b>25% per ton of product</b> by 2030 (2015 baseline year)		
Reduce Scope 3 emissions by <b>10%</b> by 2030	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 	<b>13</b> CLIMATE ACTION 
Achieve <b>net-zero carbon emissions</b> by 2050		

CF Industries' goal to accelerate efforts to reduce energy consumption and greenhouse gas emissions are guided by a long-term, critical goal: Achieving net-zero carbon emissions by 2050. We are actively progressing toward that milestone and holding ourselves accountable along the way through shorter-term goals and our work with partners, such as the World Business Council for Sustainable Development (WBCSD), to achieve science-based targets for fertilizer sectoral decarbonization. More broadly, we continue to manage our production network to maximize efficiency and reduce emissions intensity. Today, we do this in three main ways:

## Three ways we manage our production network to maximize efficiency and reduce emissions intensity



### 1 Choosing a friendlier feedstock:

A feedstock is raw material used to supply or fuel a machine or industrial process. The two most common hydrogen feedstocks for ammonia production are natural gas and coal. All CF Industries facilities use natural gas, which results in one-third of the carbon emissions compared to the use of coal.

### 2 Investing in our manufacturing network:

CF Industries continually invests in our locations to improve safety, energy efficiency, and reliability. Over the past 10 years, we have invested approximately \$10 billion in our facilities. We also surveyed select employees and established steering committees at our sites to develop and prioritize a list of viable Scope 1 GHG-reduction capital projects. As a result, CF Industries operates some of the most energy-efficient ammonia production plants in the world.

### 3 Operating with high efficiency:

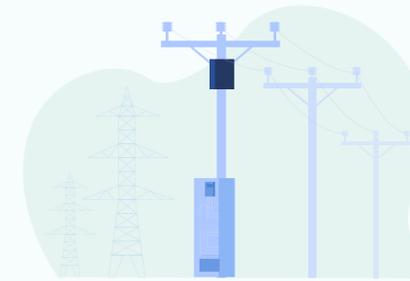
Emission are closely related to our energy use, which is closely linked to production volumes. Over a five year average, our capacity utilization is among the highest in our industry and 14% higher than our peers in North America. This allows us to produce more with less energy.

## What are Scope 1, 2, and 3 GHG Emissions, and what is CF Industries doing to manage them?



### SCOPE 1 14% INTENSITY REDUCTION SINCE 2015

**Total CO<sub>2</sub>e Scope 1 Emissions:** Scope 1 greenhouse gas emissions are emissions from sources owned or controlled by CF Industries — in this case, our facilities. By identifying viable Scope 1 greenhouse gas reduction capital projects in 2021, we have created a roadmap to reduce total CO<sub>2</sub> equivalent emissions by 25% per ton of product by 2030. To date, our 14% reduction since 2015 is due to increased plant efficiency and reliability.



### SCOPE 2 12.8% REDUCTION FROM 2020

**Total CO<sub>2</sub>e Scope 2 Emissions:** Scope 2 GHG emissions are emissions from electric utility companies that supply power to CF Industries' facilities. In 2021, our Scope 2 emissions were 688,228 tCO<sub>2</sub>e, a 12.8% decrease compared to 2020.



### SCOPE 3 TARGETING 10% REDUCTION BY 2030

**Total CO<sub>2</sub>e Scope 3 Emissions:** Scope 3 GHG emissions are emissions that arise from our suppliers sourcing our raw materials or customers using our products. These emissions occur away from the direct control of the Company. During 2021, our first year reporting Scope 3 emissions, we measured and estimated 2020 Scope 3 emissions at 61.4 million tCO<sub>2</sub>e, and subsequently set a goal to reduce this amount by 10% by 2030. For 2021, we estimated our Scope 3 emissions at 53 million tCO<sub>2</sub>e, a decline relative to 2020 due to lower fertilizer production in 2021 compared to the year before and thus lower application of fertilizer by end-users.



We are at the forefront of blue and green ammonia production in the U.S. — two types of ammonia that can be leveraged to combat climate change and assist our customers in transitioning to more sustainable energy sources. With blue ammonia, we have committed to install carbon dioxide dehydration and compression equipment, which is essential for the transport and permanent sequestration of captured carbon, at two of our manufacturing complexes. Once complete, the Company will be capable of preventing up to 2.5M tons of carbon emissions annually, enabling the production each year of approximately 2 million tons of blue ammonia, which is equivalent to 1.25M tons of net-zero carbon ammonia. We have begun construction on North America's first commercial scale green ammonia production facility. When complete in 2023, the Company will be able to produce up to 20,000 tons of green ammonia per year.

EMPLOYEE SPOTLIGHT

# Eugene Britton

Director of Technical Services, Donaldsonville

CF Industries is developing the first commercial-scale green ammonia project in North America at its long-running Donaldsonville Complex in Louisiana. Eugene Britton, Director of Technical Services in Donaldsonville, is responsible for overseeing the engineering, mechanical integrity, and control system groups at the plant.

“The most exciting thing about my work is the diverse types of projects I contribute to — anything from large projects like the green ammonia initiative to environmental and process safety improvements in our operating units,” Britton said. “I like that I never have the same day twice since there’s so many different opportunities here.”

CF Industries broke ground on the plant in 2021 and expects to have the unit in production in 2023. The initiative will source carbon-free energy and keep CF Industries on track to reduce its carbon footprint by 2030.

“This technology is entirely new for much of the world, not just our team at CF Industries,” Britton said. “Our engineering team has worked hard to understand the underlying technology to ensure safe and

efficient integration of the electrolysis process into our operation. There’s a lot of work that goes into developing the equipment design and operating process to make sure we are simultaneously meeting CF Industries safety standards, but we are proud to say that once finished, it will be the largest unit producing green ammonia in the world.”

Despite the challenges, the green ammonia project has been an exciting learning opportunity for Britton. He noted how he is proud to be part of the positive changes CF Industries is making in the ammonia industry.

“It’s very exciting to be a part of this process, and something I’ve thought about quite a bit,” he said. “The ammonia industry has created positive change in the world for over a century. Through the lens of today’s climate crisis, it’s rewarding to be with a company that is taking action to help solve those global challenges while still feeding the world. I feel very proud to work for CF Industries.”

CF Industries is proud to have employees like Britton use their technical expertise and passion for our mission to achieve our goals.

**“The most exciting thing about my work is the diverse types of projects I contribute to — anything from large projects like the green ammonia initiative to environmental and process safety improvements in our operating units.”**

**Eugene Britton**

# Key Highlights: Environment



CF Industries is committed to achieving **net-zero carbon emissions by 2050** and has numerous efforts underway to accomplish this goal.



We are holding ourselves accountable through short-term goals and our work with our partners **to achieve decarbonization.**



We are focused on **maximizing efficiency and reducing emissions** across our facilities, which are already highly efficient compared to peers.



Our efforts are working, as evidenced by the strong progress we have made addressing and **managing our Scope 1, Scope 2, and Scope 3 GHG emissions.**



We are focused on innovating to provide our customers across various sectors with **blue and green ammonia** to decarbonize their own operations.



From the production employees who helped identify feasible emission-reduction projects to the engineers analyzing our efforts, **the entire CF Industries team has a role to play.**





# Safety

Sustainability Goals	UNSDGs
At least <b>95%</b> of the aggregated safety grades of all employees at manufacturing and distribution sites must be a "B" or better for the year	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 
Management of changes in current year closed within <b>90 days</b> of pre-startup review	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 
Safety critical <b>equipment inspections</b> completed per schedule	<b>17</b> PARTNERSHIPS FOR THE GOALS 
Receive the "Protect & Sustain" certification (or equivalent environmental/product stewardship certification) for <b>100% of manufacturing sites</b> by 2030	

The safety of CF Industries employees is essential to our operations. Safety at CF Industries starts with our Do It Right philosophy, which includes equipping our employees with the proper safety knowledge, tools, and procedures and fostering a culture that encourages employees to act with safety in mind every time they come to work. This culture of Environment, Health, and Safety (EHS) excellence is documented in [Our Values](#) and [Code of Corporate Conduct](#). At CF Industries, our practices, systems, and Do It Right culture all constantly work together to achieve continuous innovation, driving our business and strategy forward each day.

**CF Industries has a culture of Environment, Health, and Safety Excellence**

As part of our commitment to EHS excellence, we are pursuing Protect & Sustain certification at all our manufacturing facilities. The Protect & Sustain certification was developed by the International Fertilizer Association (IFA) to promote safety and security in the industry. Our Yazoo City, Mississippi, manufacturing complex and our corporate headquarters have earned the certification. We are responsible stewards of chemicals, with 100% of our products undergoing a formal hazard assessment. All products and services are assessed for health and safety impacts, with safety data sheets shared on our corporate website.

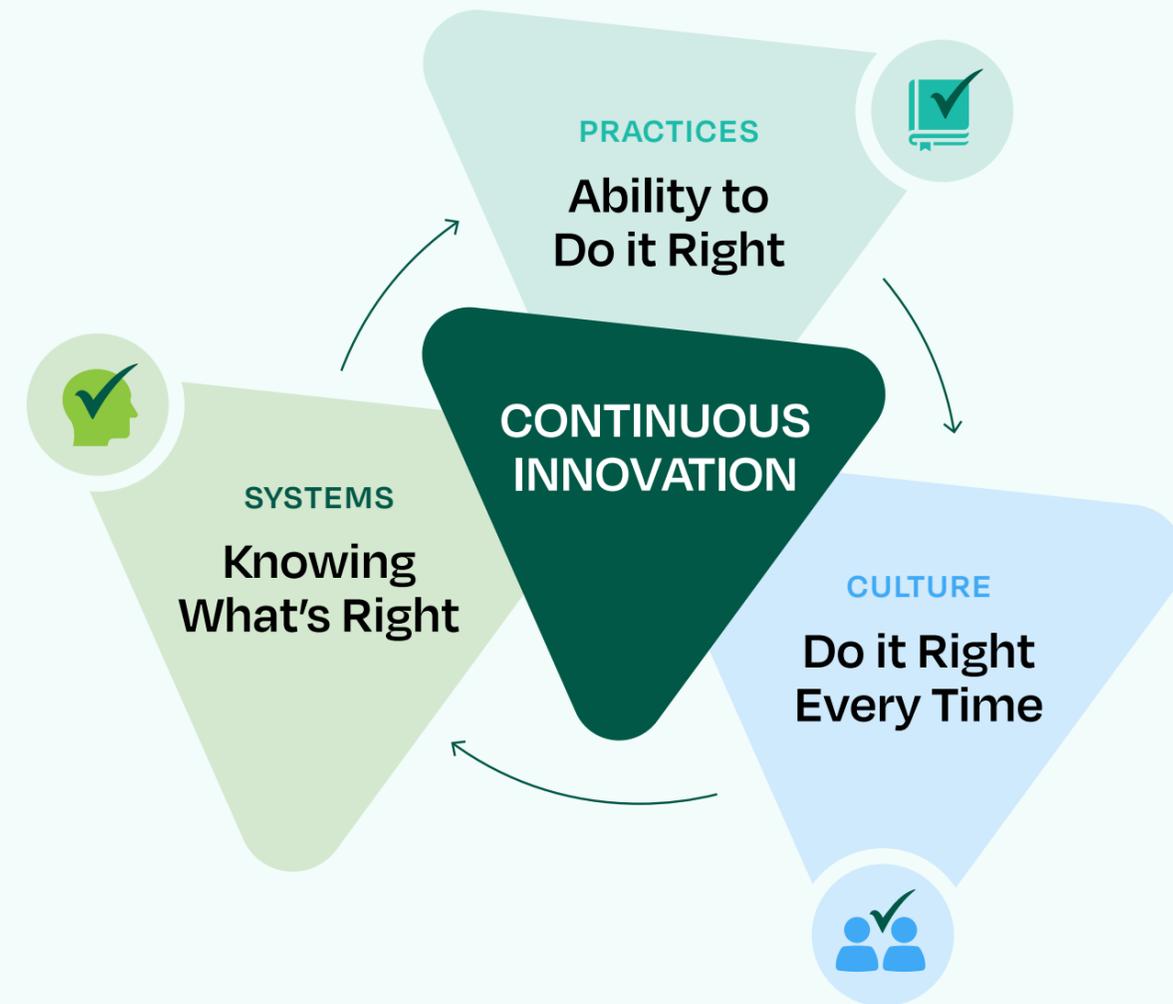
Another example is our efforts to prevent high temperature hydrogen attacks (HTHA), which can affect certain types of steel pipes and related equipment, creating defects in these materials that

can lead to safety risks and operational issues if left at high temperatures over consistent time periods. Following a fatal explosion and fire that was caused by HTHA, the U.S. Chemical Safety Board (CSB) recommended that the chemical industry protect against these attacks by upgrading to equipment with inherently safer materials. CF Industries quickly reviewed all available information, conducted a comprehensive assessment of our equipment potentially exposed to HTHA, and implemented the necessary changes to our manufacturing equipment to mitigate these safety concerns.

In 2021, we took our initiatives further, establishing the series of workplace health and process safety goals listed on page 20.

We're proud to report that we have achieved our goal of ensuring safety-critical equipment inspections are completed on schedule and are fully certified and aligned to industry standards.

# Do It Right!



SPOTLIGHT

# Wilson Award for Excellence in Safety



Our Ince Complex team came up with a sound solution for checking miles of piping, earning them the **2021 Stephen R. Wilson Award for Excellence in Safety**. Click the image above to learn more about their innovation.

Each year, employees across CF Industries implement impactful safety innovations and improvements. These invaluable contributions to our organization not only improve our ways of working but promote the safety of our friends and coworkers. We do not see safety improvements as proprietary information. We reward safety innovation within our organization, and we share our progress and insights throughout our network and with industry peers.

One of the most prominent ways we do this is through the Stephen R. Wilson Award for Excellence in Safety. Every CF Industries location nominates initiatives to receive the award, and finalists are chosen by a cross-functional selection committee. Then, our Senior Leadership Team selects the winner based on impact on safety performance and culture, transferability to other sites, ability to be sustained and improved upon, and demonstration of our Core Values.

The Wilson Award demonstrates how much we value and respect the work our team does every day to maintain safe and reliable operations. This work starts with an

idea – a creative solution that looks to enhance the current state of our operations.

### Safety at Our Ince Complex in Action

In 2021, our Ince Complex employees came up with a sound solution for checking miles of piping for leaks, winning the award. The team at Ince, located south of Liverpool in the U.K.'s northwest, implemented a leak check system using a sonic imager device that detects leaks from a distance and identifies the source with pinpoint accuracy.

“Using this equipment ensures our site and the environment are kept safe,” said Paul Lyalle, Ammonia Day Supervisor at the Ince Complex.

With the sonic imager, the team at Ince has drastically improved the efficiency, accuracy, and responsiveness to leak detection, showing what it means to Do It Right. Thank you to the Ince Complex site for raising the bar and coming up with a solution to strengthen the safety of all CF Industries on-site employees.

“Using this equipment ensures our site and the environment are kept safe.”

Paul Lyalle,  
Ammonia Day Supervisor

# Key Highlights: Safety



The safety of CF Industries employees is essential to our operations, engrained in Our Values, Code of Corporate Conduct, and our Do It Right philosophy.



Safety is a shared responsibility embraced by all employees, leading to recordable injury rates significantly lower than industry averages.



We applaud **creativity, innovation, and teamwork**, as demonstrated by the Ince Complex in Cheshire, winner of the 2021 Wilson Award for Excellence in Safety.





# Workforce

Sustainability Goals	UNSDGs	
Increase representation of females and persons of color in senior leadership roles (director level and above) to at least <b>30%</b> by the end of 2025	<b>5</b> GENDER EQUALITY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 
Implement a program to create additional pathways to <b>long-term professional growth for traditionally underrepresented employee groups</b> by the end of 2021 with the ultimate goal of increasing the hiring and promotion of minority and female candidates	<b>10</b> REDUCED INEQUALITIES 	

Success at CF Industries starts with the talented team and industry-leading culture we have worked hard to build. We prioritize our people and strive to organize our global workforce around a collaborative spirit that delivers steady progress against ambitious goals while lifting up every member of the team. We call it our Do It Right culture, a mindset and way of being that encourages and inspires. Doing It Right means valuing all voices and ensuring our team is fully supported to do its best work.

CF Industries focuses our Workforce enhancement initiatives around three core areas: Inclusion, Diversity and Equity (ID&E), Benefits and Engagement, and Professional Training and Development. Our efforts in each area are designed to make our team stronger, more empowered, and more inclusive. In other words, to Do It Right and be our best.

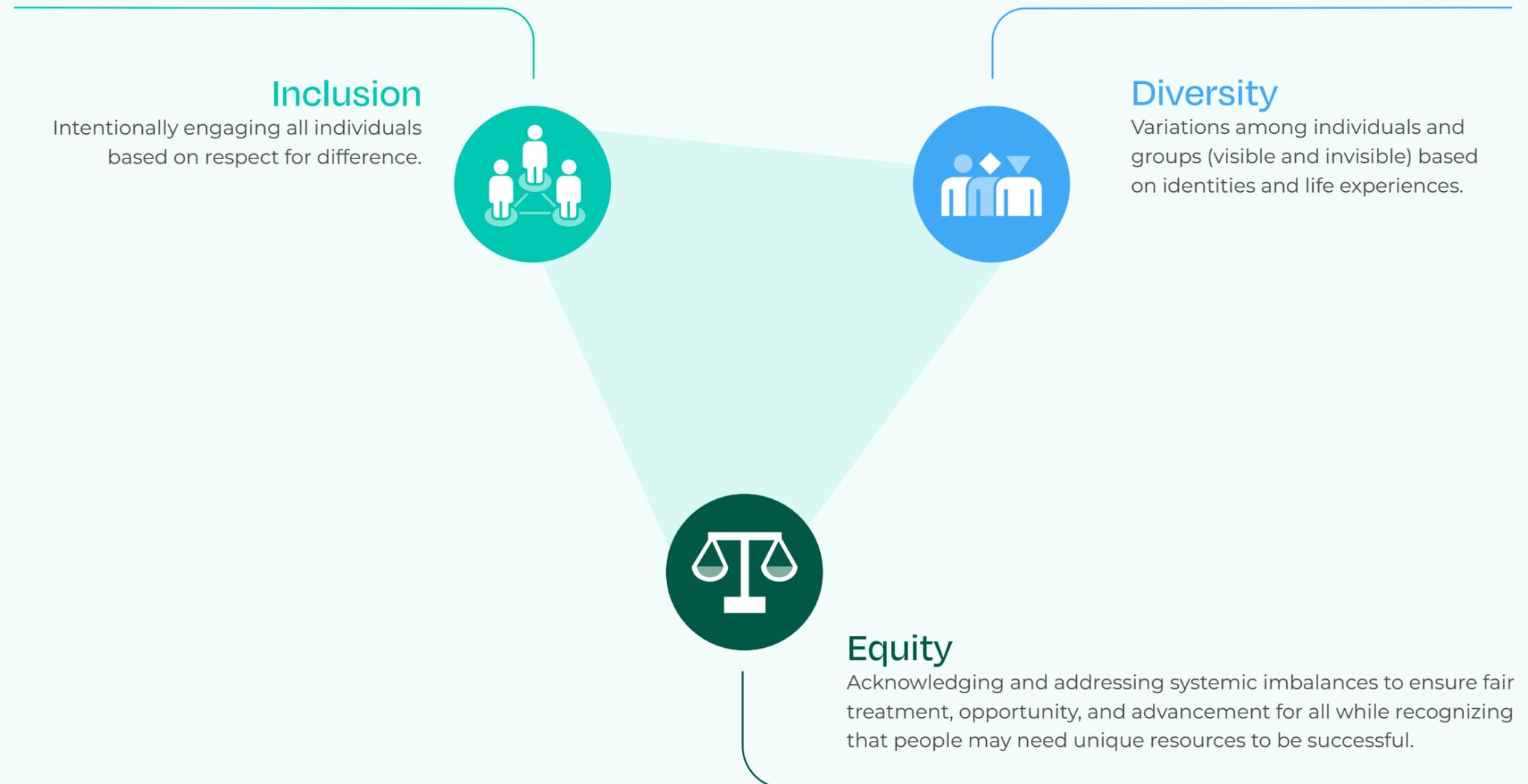
# Inclusion, Diversity & Equity at CF Industries

At CF Industries, we know having a variety of perspectives, backgrounds, and experiences across our organization is critical to making the best possible decisions. We fully understand and embrace the fact that promoting ID&E is central to our continued success.

As such, we have long been committed to creating an inclusive, diverse, and equitable workplace where every employee is physically and emotionally safe, feels accepted and valued, and has an equal opportunity to be successful and do their best work.

You can read more about our commitments to ID&E in the pages ahead, but it is first important to understand some basics about the topic at hand.

## How CF Industries Defines Inclusion, Diversity & Equity



## In 2020, CF Industries updated our Core Values to emphasize our commitment to ID&E

### Bringing our ID&E Strategy to Life

In 2020, we began a concerted effort to better bring our ID&E strategy to life, updating the underlying principles of our corporate Core Values to highlight our ID&E commitments. Our Core Values serve as the moral compass of CF Industries. They are prominently displayed in each of our facilities, regularly repeated in our communications, and are emphasized with every member of our team. Within each Core Value, we now have a value statement describing where we want to go in terms of ID&E. All four Core Values now support our commitment to ID&E and demonstrate how we can get there by living out our values.

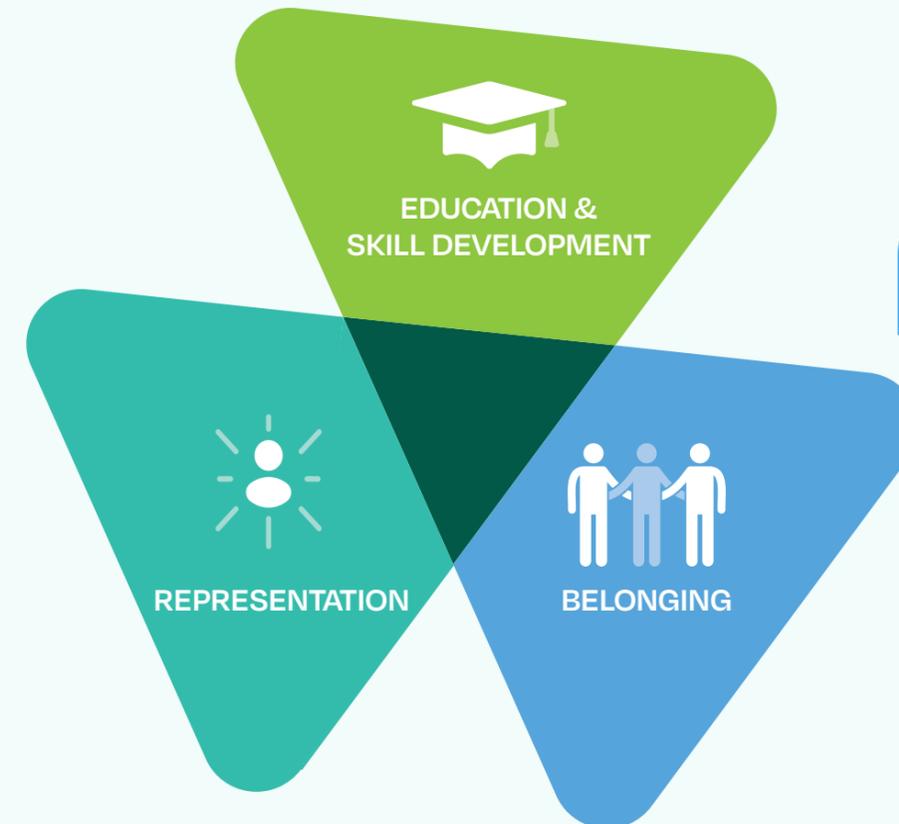


## The CF Industries team continues making progress against the three key areas of our ID&E Strategy

Our broader ID&E strategy builds on our Core Values and is focused on three areas: Representation, Education and Skill Development, and Belonging. We are proud of the progress our team has made in each of these dimensions while still recognizing there is much work to be done.

- Achieved our goal of increasing representation of females and persons of color in senior leadership roles (director level and above) to at least 30% by the end of 2025.
- Females and people of color now make up 50% of the Board of Directors, following the appointment of Deborah DeHaas and Jesus Madrazo in 2021.
- Launched partnerships with Historically Black Colleges and Universities (HBCUs), Science, Technology, Engineering, and Math (STEM) organizations, and the schools of our local communities.
- Developed a new careers website, interview guides, and used social media to spotlight employees.
- Created a cross-functional team that has identified roles in IT, Operations, EHS, and Quality for which job descriptions can be converted to skills-based jobs that do not require a degree.

- 100% of employees completed unconscious bias training.
- Launched LinkedIn Learning and inclusive leadership training for all employees.
- Hosted an interactive webinar in June (National Safety Month) on how psychological safety and well-being are part of CF Industries' overall safety program. More than 550 employees attended.



- Established an Inclusion Council (IC), a committee of diverse leaders empowered to be the champions of ID&E at CF Industries.
- Launched our first Inclusion Resource Group (IRG), an employee-led forum for all employees to get involved and help create a workplace where we all feel included. The IRG is already 300 members strong and growing each day, building connections and initiatives surrounding career development, community involvement, and cultural awareness.
- Celebrated our differences through employee panels, interviews, and interactive webinars, with more than 1,800 individuals participating in various events.

### The Multiple Pathways Initiative

CF Industries has also made progress toward our goal of creating additional pathways to long-term professional growth for traditionally underrepresented employee groups by participating in the **Multiple Pathways Initiative**.

The **Multiple Pathways Initiative (MPI)** is a long-term effort aimed at improving companies' hiring and talent management practices to emphasize the value of skills, rather than just credentials, and to improve equity, diversity, and workplace culture. MPI is organized by the Business Roundtable (BRT), a nonprofit business leadership organization whose members are chief executive officers of large U.S. companies, including CF Industries' Tony Will.

Participating in MPI identified the need to communicate our skill-based hiring and promotion practices more widely. We discovered areas to build greater equity in talent practices across the company that will increase the opportunity for talent from non-traditional backgrounds and help us create a more inclusive, engaged, and innovative workforce.

Our Company recognizes that when it comes to enhancing ID&E in the workplace, it is not about the acronym we use, nor is it as simple as hiring new people; it's about aligning our values and driving the right behaviors across our business. We are committed to steadily making CF Industries more inclusive, diverse, and equitable now and over the long run.





## Benefits and Engagement

We are also committed to ensuring our team has access to best-in-class benefits and venues for voicing their opinions on Company matters. Ensuring our employees are supported and heard is just another way we aim to Do It Right.

### Our employees have access to benefits coverage at market competitive prices, which include:



**Healthcare:** High-quality, affordable healthcare benefits, including medical, dental, and vision coverage, as well as access to occupational, primary, and preventive healthcare through our onsite clinics.



**Financial Security:** Retirement savings benefits including 401(k) and pension plans, life & disability insurance programs, and educational resources to understand all available options.



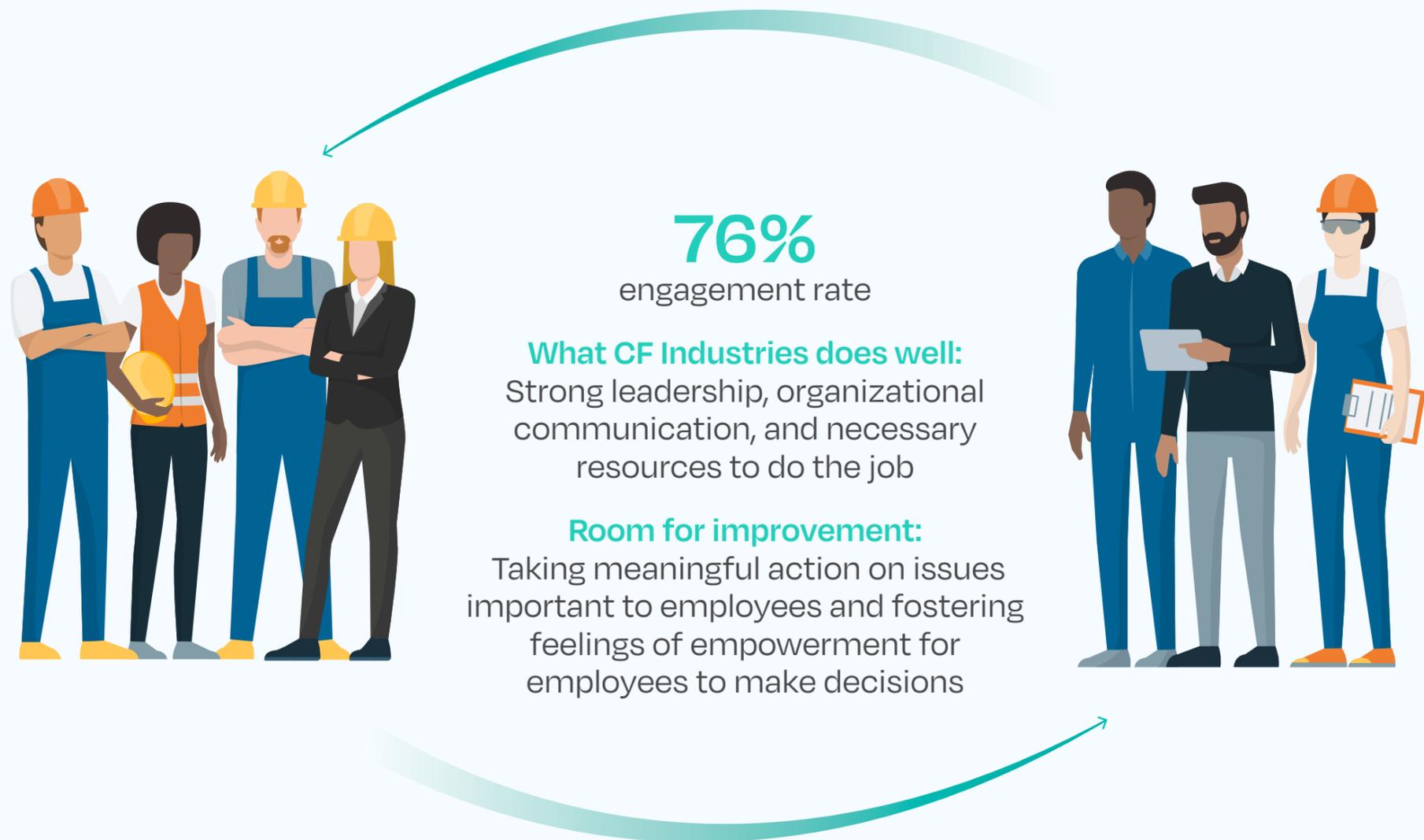
**Well-being:** Tools and resources to help employees meet their physical, financial, emotional, and work-related goals, including paid time off programs for vacation, sick time, scheduled & floating holidays, and volunteering.

## CF Industries uses all-employee engagement surveys to ask our team what we're doing well and how we can improve

### Engagement

In 2020, we launched our first all-employee engagement survey, which indicated an engagement rate of 76%, two points above the global benchmark, which helped us better understand of our areas of strength and opportunities for improvement. Employees recognized CF Industries for strong leadership, organizational communication, and appreciated having the necessary resources to do their jobs. Greatest areas of opportunity include taking meaningful action as a result of the survey, feeling that opinions count, and empowerment to make decisions regarding their work. Our leadership has been acting on the employee feedback with the goal of making CF Industries an even better place to work for all members of our team.

In 2022, we will be enhancing our employee listening strategies by implementing employee lifecycle surveys to gain insights in engagement and process from hiring, onboarding, role changes, and exiting the organization. This additional feedback will allow us to continue to optimize our business and improve the overall employee experience.



# Professional Training & Development

Just as employees are committed to growing our company and making it stronger, our culture at CF Industries encourages employees to continue learning and developing as professionals.

We offer many training opportunities, including those related to job competency, compliance, and workplace safety. On average, North American employees receive 30 hours of training per year. We also provide our people with various educational resources to further their careers.

For example, North American employees have access to the NA Tuition Reimbursement Program, which allows for up to \$10,000 of eligible approved tuition expenses each calendar year for covered education programs at accredited institutions. In 2021, we had 22 employees receive education assistance, with CF Industries contributing over \$136,500.

Additionally, we created new targeted development training programs covering topics such as Front-Line Leadership and Functional Leadership training.

Further, our Core Curriculum remains an important part of employee learning at CF Industries. This program features a series of courses designed to familiarize CF Industries employees with our business, values, culture, and people processes. The program provides a consistent understanding of who we are, what we do, and how we do it for all members of our Company.

## New Changes to Our Core Curriculum



New employees now have access to **interactive roadmaps of their first 90 days**, outlining key learning and activities tailored to their employee level, location, and function.



Team leaders now have **onboarding and integration coaching guides** featuring explicit instructions on how they can prepare for and support new employees' onboarding and integration experiences.

During 2021, we launched our new Employee Value Proposition (EVP), which provides employees with insights on how to differentiate themselves and their efforts at CF Industries, as well as how to be part of a larger global community, such as by volunteering in local communities.

Additionally, we launched another educational resource — LinkedIn Learning — which provides an opportunity for all employees to further advance their professional skills by engaging in a variety of trainings, fully customized to meet the needs and interests of CF Industries employees. The subject areas are designed to further employees' skills for their daily jobs, as well as enhance their knowledge of other subject areas of interest.

**LinkedIn Learning Topics Include:**

**BUSINESS**

Strategy, Career Development, Finance and Accounting, Human Resources, Leadership, Marketing, Professional Development, and Entrepreneurship

**TECHNOLOGY**

Cloud Computing, Data Science, Database Management, IT, Security, Software and Web Development

**CREATIVE**

Architecture, Engineering and Construction, Animation, Audio and Music, Graphic Design, Photography, User Experience, and Web Design

**EDUCATION**

Certification Prep and Continuing Education

**CF CUSTOMIZED LEARNING PATHS**

Leading Self, Leading Teams, Leading Leaders, Leading the Business, and Developing Resiliency



SPOTLIGHT

# JD Jones

## Maintenance Manager, Courtright Complex

James “JD” Jones is a maintenance manager of the Courtright Complex who thrives off the fast-paced and hands-on work at CF Industries. He’s a devoted family man who started at the Verdigris Complex but took night and weekend classes to earn an engineering degree. Jones’ dedication and enthusiasm aren’t the only things that make him unique; he’s also a member of the Native American Chickasaw Nation, which was originally located in the southeastern U.S. Being Native American has shaped Jones into the person he is today, teaching him devotion and loyalty among other attributes.

“Something that I believe Native Americans/ First Nations specifically bring to the workplace is the servant-leader mentality as we are brought up believing you shouldn’t ask someone to do something that you wouldn’t be willing to do yourself,” Jones said. “You need to understand other people’s struggles, understand what you’re asking them to do, and never put yourself above someone else. Another aspect is loyalty — to your community, family, tribe, and your organization.”

Although Jones’ community is one that has empowered him and given him strength, it is one rooted in a painful, yet rich and complex history. The Native American community has made incredible progress and great contributions, but it continues to face issues today like access to clean drinking water and land debates. This community and many other minority groups are still combatting discriminatory policies, insufficient resources, and inefficient federal program delivery. Recognizing the paths of these communities and educating ourselves on their deep historical roots and ongoing struggles is one of the most impactful ways to fight discrimination and provide insight on our behaviors and biases.

“It’s all about awareness as the general public isn’t always aware of our experience and varying cultures,” Jones said. “Different tribes and nations have their own histories, traditions, and deep-seated cultures. Having a month dedicated to paying tribute to the ancestry and rich traditions is a great first step towards awareness and education. Learning from other cultures is eye-opening and expands our world view.”

**“You need to understand other people’s struggles, understand what you’re asking them to do, and never put yourself above someone else.”**

**JD Jones**



# Key Highlights: Workforce



Success at CF Industries starts with our people living our **Do It Right culture**, and we remain committed to pursuing our ID&E and employee experience efforts to fully embody this culture.



We strive to have a variety of perspectives, backgrounds, and experiences represented across CF Industries and have set short and long-term **ID&E goals** that are already making great progress to achieve this goal.



Our efforts to enhance the employee experience are focused on three core areas: **Benefits, Engagement, and Professional Training & Development.**



Our employees enjoy **high-quality benefit coverage** and we offer a variety of initiatives to help employees grow as professionals.





# Community

Sustainability Goals	UNSDGs
<p>Implement a program to create additional pathways to <b>long-term professional growth for traditionally underrepresented employee groups</b> by the end of 2021 with the ultimate goal of increasing the hiring and promotion of minority and female candidates</p>	
<p>Increase engagement and support with our local communities and <b>expand the corporate giving philosophy</b> to include environmental sustainability, food access and security, STEM education, and first responders within our local communities</p>	
<p>Implement a Volunteer Time Off ("VTO") program by the end of 2021 which provides paid time off for employees to volunteer in their communities with organizations that are part of the Company's giving campaign. <b>Achieve 25% employee participation in VTO program</b> by the end of 2025</p>	

Our work at CF Industries not only positively impacts the world at large but also benefits our local communities. In addition to developing products that support food security and the health of the global population, we are dedicated to partnering with the areas in which we live and work through corporate philanthropic initiatives and locally managed charitable programs at our sites across the U.S., Canada, and the U.K.

# Charitable Giving

CF Industries has a long and proud history of community impact. And in 2021, in step with our Core Values, we decided to enhance our efforts by organizing our corporate giving philosophy around four key pillars. These pillars, which are detailed below, serve as our guidepost for our giving philosophy.

These pillars have formalized our charitable giving approach. In 2021, CF Industries donated \$3.2 million to these causes, including One Acre Fund, food banks, and local United Way programs.

CF Industries also supports food security through its partnership with [One Acre Fund](#), an organization that provides financing, distribution, and training to approximately 1.3 million smallholder farmers, which are farms that are less than five acres in size, in Sub-Saharan Africa. CF Industries' support is helping One Acre Fund farmers plant more than 1 million new trees each year, and our partnership with One Acre Fund is just beginning. We look forward to growing our relationship and helping even more farmers around the globe in the years to come.

During 2021, we also launched our new Volunteer Time Off ("VTO") program, through which employees receive one full scheduled day in a normal work week to participate in volunteer activities. We encourage employees to participate in this program and contribute their time and talents to recognized charities, causes, or not-for-profit organizations, making a positive difference in our communities.



## Environmental Sustainability

Protecting and caring for the lands and natural resources that feed and fuel our communities.



## STEM Education and Awareness

Helping people of all backgrounds, genders, and races access education and career development resources in the areas that will support global sustainability efforts and our clean energy future.



## Healthy Food Access

Improving access to nutritious, affordable foods that members of all communities – including low-income communities and communities of color – need to grow and thrive.



## Local Community Advancement

Making a difference in local communities where CF Industries employees live and work while addressing the needs of marginalized cultural groups and supporting first responders.

SPOTLIGHT

# Medicine Hat Complex

**Raises Over \$92,000 for United Way in 2021**

CF Industries' Medicine Hat Complex in Alberta, Canada, partners with United Way of Southeastern Alberta to organize a variety of events throughout the year and support work in the community. The United Way is an international network of over 1,800 local nonprofit fundraising affiliates that works to improve the health, education, and financial stability of people everywhere. The Medicine Hat Complex raised over \$92,000 in 2021 alone and, for the tenth consecutive year, its efforts were recognized with the Southeastern Alberta's Chairman's Cup, an honor reserved for the largest donation in a campaign year. The team also received the Leading the Way award for having the most employees participate in leadership giving.

Leigh Hadden, an accountant at the Medicine Hat Complex since 2015, helped guide a nearly year-long effort to support the United Way by leading a core team of eight volunteers, all of whom dedicated significant time to each event. Yet the levels of participation of Medicine Hat Complex employees proved that the commitment to giving back exists far beyond the fundraising team. The payroll campaign, in which employees could donate a portion of their paycheck or make a one-time donation, raised over \$42,746. Thanks to CF Industries' corporate matching, over \$85,492

was raised by this event alone to support local food security, emotional well-being, education, and other vital programs at United Way.

"Employees feel fortunate that they can give back in a meaningful way, especially to an organization that can address local needs," Hadden said. "I support the United Way's mission because of its focus on many areas of need. We have a local chapter that understands the needs of our community and can spread donations where help is needed most."

Hadden utilized CF Industries' Volunteer Time Off Program ("VTO") to attend an additional United Way event. VTO allows all CF Industries employees to give their time back to a charitable organization that is meaningful to them and make a positive difference in the community in which they live and work in every day.

"I used my Volunteer Time Off day to volunteer at the CFL Alumni Golf Tournament, which also supports the United Way of Southeastern Alberta. I like this program because it allows me and other employees to give our time, which is sometimes just as beneficial as a monetary donation."

**"Employees feel fortunate that they can give back in a meaningful way, especially to an organization that can address local needs."**

**Leigh Hadden**



# Key Highlights: Community



CF Industries is **dedicated to supporting the communities** in which we work through corporate philanthropic initiatives and charitable programs at our sites across the U.S., Canada, and the U.K.



We continued to develop our corporate philanthropy program, with monetary and in-kind donations in 2021 reaching **\$3.2 million**, similar to 2020.



We formalized our giving philosophy around four key pillars that align with our values and our business: **Environmental Sustainability, Healthy Food Access, STEM Education and Awareness, and Local Community Advancement.**



We also launched our new **Volunteer Time Off ("VTO") program**, through which employees receive one full scheduled day in a normal work week each year to participate in volunteer activities.



# Conclusion

As the world’s largest producer of ammonia, a simple compound capable of macro impact, CF Industries has a central role to play in accelerating the world’s transition to clean energy.

We are well-equipped to do just that and achieve our corporate sustainability goals due to the support of our stakeholders and their ongoing contributions to our clean energy strategy. From current and future employees to community partners and customers, every individual and group that touches CF Industries’ business is important to achieving our goals. By working together, we can build a stronger, more successful CF Industries and a cleaner planet — ambitions we can all support.

CF Industries will continue to regularly report on our clean energy strategy and sustainability progress through future editions of this report as well as more frequent updates through our website, social media channels, and other communication platforms.

As described throughout this report, we will continue to focus our efforts on four key areas: Environment, Safety, Workforce, and Community, all which lead back to fully embodying our Do It Right philosophy and positively impacting the world around us.

## Four Priority Areas for our Stakeholders

**1 Environment**  
Realizing our Vision of a better world starts with reducing our emissions footprint and that of our customers.

**2 Safety**  
Carrying out our Mission requires a healthy, safe, and productive team.

**3 Workforce**  
Developing the best possible Strategy requires inclusive leadership and supporting the growth of employees as both individuals and teams.

**4 Community**  
Being a leader means being a good citizen and supporting the communities in which we live and work.



Living our Do It Right Philosophy and Providing a Cleaner Tomorrow For All

From expanding our clean ammonia manufacturing capacity to promoting a more inclusive and collaborative workplace, we are collectively creating a stronger CF Industries from the inside out.

To ask questions about anything you have read in this report or to learn how to further support CF Industries’ sustainability efforts and clean energy strategy, please email [corp\\_communications@cfindustries.com](mailto:corp_communications@cfindustries.com).

**Thank you for all your efforts so far and for your continued hard work in the years to come as CF Industries moves boldly toward a brighter future for us all.**

# Appendix: Environment

## ENERGY

Energy Consumption Within the Organization			
	2021	2020	2019
Total natural gas consumption (MMBtus)	334,077,309	364,059,137	360,271,343
Total electricity consumption <sup>1</sup> (GJ)	8,826,534	9,164,612	9,288,605
% electricity procured from renewable sources	36	22	23
Energy Intensity			
	2021	2020	2019
Gas	352,470,220	384,104,233	380,274,368
Gross Ammonia Production (Metric Ton)	8,481,397	9,391,681	9,295,111
Energy Intensity	41.56	40.90	40.91
Reduction of Energy Consumption			
	2021	2020	2019
Reduction in natural gas consumption from prior year (GJ)	-29,981,828	-3,829,865	-13,929,302

<sup>1</sup> Electricity consumption includes purchased and self-generated electricity

## EMISSIONS

GHG Emissions Intensity				
	Denominator	2021	2020	2019
GHG emissions intensity Ratio	Gross Ammonia Production	1.96	1.91	1.97
Reduction Of GHG Emissions				
Unit: Tonnes	Denominator	2021	2020	2019
Total GHG reductions:	Type of GHG emissions that have been reduced Direct (Scope 1) Indirect (Scope 2)	1,390,069	467,835	-1,543,348
Direct (Scope 1) GHG Emissions				
	2021	2020	2019	
Total CO <sub>2</sub> e Scope 1 Emissions (in million Tonnes CO <sub>2</sub> e)	16.6	17.9	18.4	
Scope 1 CO <sub>2</sub> (in million Tonnes CO <sub>2</sub> e)	12.1	12.7	12.6	
Scope 1 N <sub>2</sub> O (in million Tonnes CO <sub>2</sub> e)	4.5	5.1	5.7	
Scope 1 CH <sub>4</sub> (thousand Tonnes CO <sub>2</sub> e)	37.4	108.2	57.8	
Energy Indirect (Scope 2) GHG Emissions				
	2021	2020	2019	
CO <sub>2</sub> e Scope 2 Emissions (Tonnes)	688,228	789,037	883,682	
Other Indirect (Scope 3) GHG Emissions				
	2021	2020	2019	
CO <sub>2</sub> e Scope 3 Emissions (Tonnes)	53,370,000	59,230,000	-	
Nitrogen Oxides (Nox), Sulfur Oxides (Sox) and Other Significant Air Emissions				
Unit: Tonnes	2021	2020	2019	
Particulate matter	1,454	1,649	1,632	
NO <sub>x</sub> (Nitrogen oxides)	10,462	10,762	9,984	
SO <sub>2</sub>	29	28	29	
VOCs (volatile organic compounds)	737	744	882	
NH <sub>3</sub>	8,162	8,777	10,384	

<sup>1</sup> Reported values do not include contribution from Distribution Facilities.

None of the withdrawals or consumption were from areas with water stress, based upon cross-referencing of the facility withdrawal areas against the World Resources Institute "Aqueduct Water Risk Atlas." All withdrawals were of Freshwater (Total Dissolved Solids ≤ 1,000 mg/L).

<sup>1</sup> Reported values include contributions from Distribution Facilities.

<sup>2</sup> Reported data includes more detailed classification and broader analysis of previous years' water withdrawal and discharge volumes.

<sup>3</sup> Discharges to Groundwater and

# Appendix: Environment

## EMISSIONS

### REDUCTION OF GHG EMISSIONS

SASB Topic: Greenhouse Gas Emissions, Code: RT-CH-110a.1

Unit: Tonnes	Denominator	2021	2020
Total GHG reductions:	Type of GHG emissions that have been reduced Direct (Scope 1) Indirect (Scope 2)	1,390,069	467,835

GHG emissions are linked to production, largely based on natural gas consumption in the production of ammonia. The marginal reduction between 2019 and 2020 is due to consistent and efficient operation of our production facilities. However, the reduction between 2020 and 2021 is a result of reduced production - a combination of delayed turnarounds due to COVID-19 taking place in 2021 and weather-related production outages; this reduction is not expected to be sustained in 2022.

# Appendix: Safety

## OCCUPATIONAL HEALTH AND SAFETY

### WORK-RELATED INJURIES

SASB Topic: Workforce Health & Safety, Code: RT-CH-320a.1

Health, Safety and Security Management	Unit	2021	2020	2019
Employee Health and Safety <sup>1</sup>				
Fatality rate	Total/200,000 hrs.	0.00	0.00	0.00
Total injuries	Injuries	9	4	18
Lost time incident rate	Total/200,000 hrs.	0.11	0.00	0.17
Recordable incident rate	Total/200,000 hrs.	0.32	0.14	0.48

Health, Safety and Security Management - Continued	Unit	2021	2020	2019
Contractor Health and Safety <sup>1</sup>				
Fatality rate	Total/200,000 hrs.	0	0	0
Total injuries	Injuries	15	6	18
Lost time incident rate	Total/200,000 hrs.	0.18	0.16	0.26
Recordable incident rate	Total/200,000 hrs.	0.55	0.32	0.95 <sup>2</sup>

<sup>1</sup> According to the Occupational Safety and Health Administration (OSHA), incidence rates can be used to show the relative level of injuries and illnesses among different industries, firms or operations within a single firm. Because a common base and a specific period of time are involved these rates can help determine both problem areas and progress in preventing work-related injuries and illnesses. An incidence rate of injuries and illnesses may be computed from the following formula: (Number of injuries and illnesses X 200,000) / Employee hours worked = Incidence rate. The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rate for an entire year. According to the Bureau of Labor Statistics, the most recent (RY 2020) recordable injury rate for the fertilizer industry is 2.5 injuries per 200,000 hours.

<sup>2</sup> Data was corrected from what was reported in the previous year.

# Appendix: Workforce

## INFORMATION ON EMPLOYEES AND OTHER WORKERS

Topic	Metric	Unit	2021	2020	2019
EMPLOYMENT	<b>Total Employees</b>	Employees	2,969	3,016	2,987
	<b>Employees by region:</b>				
	U.S.	Employees	1,980	1,989	1,940
	Canada	Employees	410	422	435
	U.K.	Employees	579	605	612
	<b>Employees by contract type:</b>				
	Full Time	Employees	2,930	2,938	2,925
	Part Time	Employees	18	17	20
	Temporary	Employees	21	31	42
	Employees covered by collective bargaining agreements <sup>2</sup>	Percentage	15	17	17
Entry level wage relative to local minimum wage (U.S.) <sup>3</sup>	Percentage	297	288	288	
Entry level wage relative to local minimum wage (Canada) <sup>3</sup>	Percentage	237	240	292	
DIVERSITY & INCLUSION	<b>Employees by gender:</b>				
	Male	Employees	2,560	2,599	2,577
	Female	Employees	409	417	410
TENURE	<b>Employees by tenure:</b>				
	0-5 years	Employees	1,189	1,240	1,347
	6-10 years	Employees	896	831	690
	11-20 years	Employees	488	475	442
	21+ years	Employees	426	470	508

<sup>1</sup> All data in this section is as of December 31 of the reporting year.

<sup>2</sup> See also GRI Disclosure 102-41 – Collective bargaining agreements.

<sup>3</sup> See also GRI Disclosure 202-1 – Ratios of standard entry level wage by gender compared to local minimum wage.

Table populated using 2021 10-K Report

Temporary employees identified as those with an employee type of temporary, intern, or co-op

Entry level wage relative to local minimum wage percentages for both U.S. and Canada provided by compensation on GRI 202-1

## AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE

Region	Average Hours
North America	42.71
United Kingdom	41.6

Data is effective 12/31/2021

## NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER

WORKFORCE BY AGE AND GENDER (ALL LOCATIONS):								
New Hires	Under 30		30-50		Over 50		Totals	
	M	F	M	F	M	F	M	F
U.S.	56	11	87	26	13	6	156	43
Canada	10	1	10	4	1	0	21	5
U.K.	15	4	9	9	1	1	25	14
<b>Total</b>	<b>81</b>	<b>16</b>	<b>106</b>	<b>39</b>	<b>15</b>	<b>7</b>	<b>202</b>	<b>62</b>

All data in this section is as of December 31 of the reporting year

Data includes employees who were hired and terminated in the same year

Includes Regular Employees, Co-Ops, and Temporary Employees (Including Interns)

EMPLOYEE TURNOVER BY AGE GROUP, GENDER AND REGION (ALL LOCATIONS)								
Turnover	Under 30		30-50		Over 50		Totals	
	M	F	M	F	M	F	M	F
U.S.	30	8	73	21	63	13	166	42
Canada	9	0	9	3	14	4	32	7
U.K.	9	4	10	13	24	6	43	23
<b>Total</b>	<b>48</b>	<b>12</b>	<b>92</b>	<b>37</b>	<b>101</b>	<b>23</b>	<b>241</b>	<b>64</b>

All data in this section is as of December 31 of the reporting year.

Includes all termination types excluding release from LTD-Includes Regular Employees, Co-Ops, and Temporary Employees (including interns)

**DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEE**

Board of Directors by Age and Gender (All Locations):						
Age Group	Male		Female		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
30-50	-	-	-	-	0	0
Over 50	9	75	3	25	12	100
Total	9	75	3	25	12	100
Recordable incident rate	Total/200,000 hrs. 0.32		0.14		0.60	

All data in this section is as of December 31 of the reporting year. 25 percent of the Board of Directors are considered to be a member of a minority group. "Minority Group" in the United States is defined as non-white ethnicity of any gender.

WORKFORCE BY AGE AND GENDER (ALL LOCATIONS):								
Genders	Under 30		30-50		Over 50		Totals	
	Male	Female	Male	Female	Male	Female	Male	Female
U.S.	240,266	3,238	10,481,015	148,138	408,423	286,108	1,696,704	2,864
Canada	2,934	89	243,236	401	6,979	14	3,419	624
U.K.	7,993	810	27,062	258	7,385	27	52,240	605
<b>Total</b>	<b>34,893</b>	<b>4,857</b>	<b>156,113</b>	<b>21,307</b>	<b>65,087</b>	<b>1,479</b>	<b>255,993</b>	<b>40,813</b>

All data in this section is as of December 31 of the reporting year. U.S. and Canada data excludes Temporary and Co-Op employees.

**RATIO OF BASIC SALARY AND REMUNERATION OF WOMEN TO MEN**

CF strives to use salary ranges that are competitive with market pay ranges for positions of comparable responsibility, functional knowledge, impact and other compensable factors. Gender is not a factor when determining compensation. Each salary range has a minimum or threshold salary for a new hire, although CF typically sets the actual salary above this minimum.

In the U.K., we make sure our employment decisions, including compensation and progression, are based on skills, competency and job-related business criteria. Opportunities to progress careers are available to all employees and we work on the principle that the best person should be in the role regardless of gender.

U.K. Gender Pay Gap Data:

Background Information	
April 2020 (Snapshot Date April 30, 2021)	1st-30th
Pay period containing snapshot date	April 2021

Employee Numbers	
Total number of relevant employees (no. of employees paid in April 2021)	600
Total number of employees less than full pay	(6)
Total number of full pay employees (April 2021)	594

Gender Split of Total Workforce	
Total male employees	535
Total female employees	65
% male employees	89.2%
% female employees	10.8%

Results:

Mean Gender Pay Gap in Hourly Pay	0.30%	Median Gender Pay Gap in Hourly Pay	11.20%
Mean Gender Pay Gap in Bonus Pay	28.00%	Median Gender Pay Gap in Bonus Pay	5.00%

Proportion of gender in each pay quartile		Proportion of gender in each pay quartile	
		Male	Female
Males receiving a bonus	95.1%	Upper Quartile	87.2
		Upper Middle Quartile	95.9
Females receiving a bonus	96.80%	Lower Middle Quartile	93.9
		Lower Quartile	80.5

1 Data comes from U.K.'s statutory Gender Pay Gap Reporting available every April of the reporting period, containing 12-month data from April to March.

# Appendix: Community

## CHARITABLE CONTRIBUTIONS

JANUARY 1, 2021 – DECEMBER 31, 2021

Organization	Location	Amount
One Acre Fund	United States	\$1,000,000
The Nature Conservancy	United States	\$600,000
American National Red Cross	Louisiana	\$100,000
Feeding America	United States	\$100,000
United Way of South Louisiana	Louisiana	\$67,724
Field to Market	United States	\$50,000
Capital Area United Way	Louisiana	\$38,299
United Way of Southeastern Alberta	Medicine Hat	\$34,272
United Way of Siouxland	Iowa	\$28,752
Resources for the Future	United States	\$25,000
State University of Iowa Foundation	Iowa	\$25,000
Woodward Community Foundation	Oklahoma	\$23,250
Verdigris Public Schools	Oklahoma	\$22,000
Baton Rouge General Foundation	Louisiana	\$20,000
The Inn of the Good Shepherd	Courtright	\$20,000
Tulsa Regional Chamber	Oklahoma	\$20,000

\*Listing reflects only contributions of \$20,000 and above. CF Industries provides additional educational and local support to organizations and communities.