

Sustainability

Grede Annual Report 2022/2023



About this Report

We are pleased to present our 2022/2023 Sustainability Report. At Grede, we understand that ESG sustainability is not merely a passing trend but a crucial aspect of contemporary business practices. We acknowledge that our manufacturing operations have a significant impact on the environment and the communities we serve, and we remain steadfast in our efforts to minimize this impact.

Our pursuit of sustainability is an ongoing journey, and we are continuously exploring ways to improve our operations, reduce our environmental footprint, and promote social responsibility. Our commitment to adopting sustainable practices throughout our business and supply chain remains resolute.

We recognize that ESG sustainability requires collective efforts from all stakeholders, including our employees, customers, suppliers, and communities. While we are proud of our progress thus far, we acknowledge that there is much more to be accomplished as we strive towards a more sustainable future for ourselves and future generations.

We remain committed to transparency, accountability, and ongoing engagement with our stakeholders as we work towards our sustainability objectives. Thank you for joining us on this journey towards sustainability.

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Cary Wood, CEO

Building a better world through responsible business practices - our commitment to ESG sustainability.

Message from our CEO

As the CEO of Grede, I believe that it is our responsibility to operate in a way that is both profitable and sustainable. We recognize that our operations can have an impact on the environment, society, and our stakeholders, and we take this responsibility seriously.

That is why we are committed to prioritizing ESG (Environmental, Social, and Governance) sustainability in all aspects of our business. We understand that sustainability is not only the right thing to do, but it also makes good business sense. By adopting sustainable practices, we can reduce costs, enhance efficiency, improve employee satisfaction, and strengthen our brand.

We are committed to reducing our environmental footprint by minimizing waste, reducing energy consumption, and adopting eco-friendly practices wherever possible. Our commitment as an ENERGY STAR partner is closely tied to our dedication to promoting sustainability and energy reduction. We also prioritize social sustainability by promoting diversity, equity, and inclusion (DEI) in our workplace, fostering positive relationships with our stakeholders, and supporting the communities where we operate.

Finally, we recognize the importance of strong governance practices to ensure accountability and transparency in our operations. We are committed to upholding high ethical standards, complying with all applicable laws and regulations, and engaging with our stakeholders to ensure that we are meeting their needs.

In conclusion, we believe that ESG sustainability is not only a moral imperative but also a business imperative. By prioritizing sustainability in all aspects of our operations, we can build a stronger, more resilient company that is better equipped to succeed in the long term. "One Grede, One Goal, United."

Grede is North America's leading manufacturer of ductile iron castings across diverse markets

Grede has more than 100 years of experience producing premier ductile, gray, and specialty iron castings. We proudly design, engineer, validate, and manufacture safety-critical components for our partners across the automotive, commercial truck, and industrial equipment sectors. Over a century ago, William J. Grede opened a single foundry in Wauwatosa, Wisconsin. Today, we lead the industry with 10 facilities across America and 2,800 team members, each an artisan of their trade. We've earned the trust of our suppliers and our customers through our commitments to quality, operational excellence, and technology leadership.



Highly Engineered Cast Solutions

Leading producer of highly engineered cast components providing solutions for a wide range of applications across automotive, commercial vehicle, and industrial end-markets.

Critical supplier to a diversified blue-chip customer base, producing safety-critical components in diverse metal technologies for drivetrain and powertrain components, serving both Tier 1 suppliers and OEMs

Grede Mission, Values and Vision

Mission: Keep mission-critical people and goods moving with highly engineered, cast solutions, and exceed expectations of those we serve.

Values: Integrity, Performance Excellence, Shareholder Value, Entrepreneurial Spirit, United Grede, Corporate Citizenship

Vision: Engineer cast solutions through a global portfolio of assets and capabilities to keep people moving.

Market Diversity and Capabilities

At Grede, we specialize in safety-critical components for automobiles, industrial machinery and commercial trucks. From concept to completion, we partner closely with our customers to provide highly engineered iron castings. Portfolio includes chassis, suspension and drivetrain components for automotive applications, engine and chassis components for heavy-duty truck engines, and large axle housings and other drivetrain components for heavy equipment and agriculture markets.



Grede Milestones



Start of Entrepreneurial Spirit:

On August 13, 1920, at the age of 23, William J. Grede bought Liberty Foundry in Wauwatosa, WI. The foundry employed 40 people and produced 1,000 tons of gray iron castings during its first year, manufacturing engine components for Nash automobiles, which were sold at 9 cents per pound.

Thriving during the Great Depression:

During the Great Depression, Grede not only survived but also thrived. Grede added Milwaukee Steel Foundry to his holdings in 1932. At that time, the plant was only operating at ten percent capacity. Grede turned things around and brought the company back to profitability and full capacity while at the same time other businesses closed because of the Depression.

Record Production during World War II:

When the United States entered World War II, Milwaukee Steel was producing at record levels. Following the war, Grede continued to grow the company further by purchasing an idled foundry in Reedsburg, WI, and building a gray iron foundry in Iron Mountain, MI.

Perseverance during the Recession:

Grede again persevered and continued to grow during the 1982 U.S. recession by focusing on long-term goals and targeting growth opportunities. Due to the poor economic outlook, Grede delayed some of his original upgrades and instead purchased smaller foundries, expanding sales and capacity.

Investment in People:

In the 1990s, Grede began investing in worker training as its plants became increasingly technologically sophisticated. Grede partnered with a Milwaukee technical college, instituting specialized foundry courses, such as a class to teach about spotting casting quality defects. Management personnel were also required to take college-level management courses, as training and retaining workers became increasingly important to success.

Expansion to Europe:

In the 1990s, Grede partnered with the Swiss firm Georg Fischer Foundry Group in Europe. The principal benefit to both companies was an exchange of technology and information. Later in the 1990s, Grede bought a foundry in the United Kingdom, marking its first plant abroad.

Expansion to Mexico:

In 2000, Grede constructed a new ductile iron foundry in Mexico, as a joint venture with a Mexican firm, Proeza S.A. de C.V. of Monterrey.

Moving Forward:

Grede kicks off the next 100 years and is optimistic about a strong future ahead. As a foundry industry leader, Grede has a seat of influence at the industry table and is looked upon as a standard bearer. The industry opportunity to further partner through consolidation is likely, creating opportunities for Grede to expand its role as the industry leader."

SUSTAINABILITY

“Grede’s ESG sustainability commitment is at the core of our business as we strive to mold a better tomorrow, today”

Cary Wood, Grede CEO



Sustainability is not new to Grede

Grede has a long-standing commitment to sustainability that dates to its inception. Since the company's establishment in 1920 by William Grede, we have embraced sustainable practices such as recycling to reduce waste and mitigate our environmental footprint.

Sustainability has been deeply ingrained in our operations since day one, reflecting our genuine dedication to this cause.

Our Sustainability Committee has identified key goals that hold significance for our business, stakeholders, and communities. We take pride in sharing our 2023 goals with transparency, as we continue to prioritize sustainability efforts in every aspect of our operations.

Sustain**ability**

| | | |
|--|---|---|
|  2,800 Employees |  10 Mfg. Locations |  500M+ Annual Ton Capacity |
|--|---|---|

Company Profile

VISION

Our vision for sustainability is a future where environmental, social, and economic sustainability are interconnected and prioritized, creating a better world for ourselves and future generations

MISSION

Our sustainability mission is to minimize our environmental impact, promote social responsibility, transparent governance, and foster sustainable practices throughout our value chain. We aim to create a positive impact on society, the environment, and the economy through innovation, collaboration, and continuous improvement.

Sustainability



10%

Decrease in Electricity Consumption



8%

Decrease in Water Consumption



12%

Reduction in Carbon Footprint



15%

Reduction in Waste to Landfill



10%

Increase in Leadership Diversity



8%

Increase in EV and Alt. Energy Markets

2027 Targets

ENVIRONMENTAL

“Preserving the planet for our customers, our communities, and future generations through eco-friendly innovation – why Environmental ESG is at the heart of everything we do at Grede.”

Cary Wood, Grede CEO



ENVIRONMENTAL: The impact of our business activities on the world in which we live

Energy Conservation: We recognize the critical importance of energy efficiency in mitigating climate change and preserving our planet's natural resources. We aim to minimize our environmental impact, lower our operating costs, and contribute to the transition toward a more sustainable future through ongoing monitoring, evaluation, and our ENERGY STAR partnership.

Net Zero: We are committed to achieving net-zero greenhouse gas emissions and taking proactive steps to reduce our carbon footprint through the implementation of energy-efficient technologies. We commit to ongoing monitoring and evaluation of our emissions, seeking to continually improve our performance and make significant progress toward achieving our net-zero emissions goal.

Waste, Recycling & Water: We seek to reduce our waste generation and promote recycling and reuse of materials wherever possible, while also ensuring that any waste generated is disposed of safely and responsibly in line with industry best practices. We strive to conserve water through the adoption of efficient water management practices and technologies.

Electric Vehicle (EV): We are well positioned for the shift towards electric vehicles. We are committed to leading the charge in shaping the future of the industry and a more sustainable future. We are well-equipped to lead the way in the EV industry by providing innovative solutions in both design and materials that meet the evolving needs of our customers and markets.

Supply Chain: We are committed to ensuring our suppliers adhere to ethical, social, and environmental standards and share our values for sustainability. We seek to identify and address any potential risks or issues within our supply chain, such as forced labor, environmental degradation, or unethical business practices. We strive to collaborate with our suppliers to promote responsible sourcing practices.





Energy Conservation is at the core of our sustainability efforts. It's not only about reducing our **environmental footprint** but also about ensuring our long-term **viability** in a rapidly changing business landscape. We are committed to this journey of **responsible** and **efficient energy management**, understanding its profound implications for both our business and the environment.

Commitment to Energy Conservation

As a foundry, we recognize the critical importance of energy conservation and sustainability across various dimensions, including electricity usage, water management, waste reduction, recycling practices, and greenhouse gas emissions. Our commitment to these areas is a testament to our dedication to environmental responsibility and long-term viability.

Electricity Conservation: Melting metals in a foundry is an energy-intensive operation. To conserve electricity, we implement energy-efficient technologies, optimize our processes, and invest in advanced control systems. These measures not only reduce our environmental impact but also lead to significant cost savings.

Water Management: Efficient water use is crucial to minimize our environmental footprint. We implement water recycling systems to reduce consumption and minimize water waste. This not only helps conserve a resource but also lowers operating costs.

Waste Reduction: We are committed to waste reduction through better process control, waste minimization techniques, and recycling initiatives. By reducing waste, we decrease disposal costs and reduce the environmental burden of landfilling.

Beneficial Reuse: Through initiatives like recycling scrap metal, reclaiming used sand, refractory material recycling, and slag utilization, we find value in materials and energy streams that were once discarded.

Recycling Practices: Foundries are inherently recyclers. Recycling is a fundamental aspect of our sustainability efforts. This conserves resources, reduces the need for raw materials extraction, and minimizes the energy required for manufacturing new products.

Greenhouse Gas Emissions: Foundries can be significant contributors to greenhouse gas emissions due to energy-intensive operations. To mitigate our carbon footprint, we invest in cleaner energy sources, such as renewable electricity or more efficient combustion technologies. Additionally, we explore carbon capture and storage options to further reduce emissions.

Lifecycle Assessment: We conduct lifecycle assessments to evaluate the environmental impact of our products, from raw material extraction to final production and distribution. This comprehensive approach helps us identify opportunities for further improvements in sustainability.

Employee Engagement: Sustainability is a collective effort. We engage our employees in sustainability initiatives, raising awareness and encouraging their active participation in continuous improvement programs. Engaged employees often generate innovative ideas that further enhance our conservation efforts.

Regulatory Compliance: We ensure strict compliance with environmental regulations and stay up-to-date with evolving sustainability standards. This not only minimizes legal risks but also demonstrates our commitment to responsible business practices.

Energy

As a foundry, we recognize the substantial environmental implications of our energy-intensive operations. The processes of melting metals, relying heavily on electricity, natural gas, and coke, are major contributors to our energy footprint. Recognizing this, we are unwavering in our commitment to optimize our energy usage.

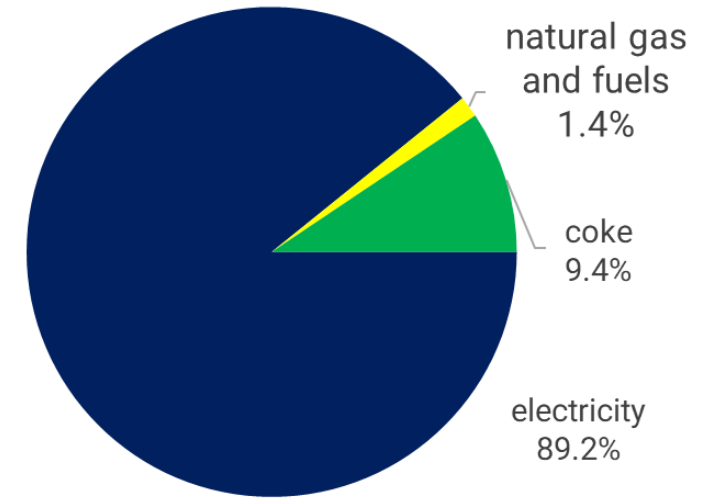
Our dedication to energy efficiency is twofold. While it is rooted in our environmental responsibilities, it also has a direct bearing on our operational costs. By minimizing our environmental impact, we ensure our resilience and adaptability in an ever-evolving business environment. We are steadfast in our pursuit of responsible energy management, recognizing its deep significance for both our enterprise and the planet. Simply put, energy conservation sits at the heart of our sustainability initiatives.

Energy Conservation Efforts

The largest opportunity to reduce our environmental impact is through energy conservation. Current conservation efforts include:

- **Efficient Furnace Technology:** We utilize energy-efficient furnaces and retrofit our existing furnaces with advanced linings and heat recovery systems as upgrades are possible to reduce energy consumption.
- **Optimized Operations:** Time our melting processes during off-peak hours, when possible, to benefit from lower electricity rates.
- **Regular Maintenance:** Ensure that all our electrical equipment, including motors, compressors, and conveyance systems, is maintained regularly to operate at maximum efficiency.
- **Variable Frequency Drives (VFDs):** We have installed VFDs on our motors, allowing them to run only at the necessary speed, reducing electricity consumption.
- **Efficient Lighting:** We have upgraded to LED lighting and employ motion sensors in areas that are not continuously occupied.
- **Training and Awareness:** All our employees are aware of the importance of energy conservation and train them in best practices.
- **Optimal Charge Material:** We use pre-sorted and cleaned charge materials, as these reduce the melting time, thereby saving energy.
- **Energy Audits:** Conduct energy audits regularly to pinpoint areas of inefficiency and develop strategies to address them.
- **Energy Partnerships:** Partner with local utility providers, utility agencies and ENERGY STAR to further energy conservation
- **Efficient Compressed Air Systems:** Ensure that compressed air system is leak-free and operates at the most efficient pressure settings.
- **Optimize Sand Systems:** Optimal reuse of sand, leading to reduced requirements for new sand preparation and saving energy.

2022 Energy Usage



Grede has pledged to meet the ENERGY STAR Challenge for Industry with a goal of reducing energy intensity by 10% over a span of 5 years.



Currently, all facilities are on track to reach this significant milestone.

Commitment to ENERGY STAR

Our journey with Energy Star is dynamic and transformative. It encompasses embracing continuous improvement, adopting cutting-edge technologies, and fostering a culture of innovation. It involves challenging ourselves to become better stewards of our resources and setting new industry standards for sustainability. We strive to lead the industry by continually implementing energy savings projects in our facilities."

ENERGY STAR PROJECT 1

- Browntown, WI
- 2.5M kWh saved
- 20% EEI Reduction

Enhancements were made to the metal retention and transfer protocols, leading to the decommissioning of one of the two iron-holding furnaces. This undertaking resulted in an annual reduction of 2.5 million kilowatt-hours (kWh) in energy consumption and a greater than 20% decline in Electrical Energy Intensity within the facility.

ENERGY STAR PROJECT 2

- Biscoe, NC
- 6.5M kWh saved
- 15% EEI Reduction

Optimized the metal melting procedure, leading to a decrease in the demand for four furnaces to three furnaces for 50% of the production cycle. This initiative yielded a significant annual reduction of 6.5 million kilowatt-hours (kWh) in energy consumption and a notable decrease of more than 15% in Electrical Energy Intensity

ENERGY STAR PROJECT 3

- Meadville, PA
- 5.0M kWh saved
- 10% EEI Reduction

Improved the metallurgical smelting procedure, leading to a decrease in the necessity for three furnaces to be operational, reducing the requirement to two furnaces for 33% of the production duration. This optimization endeavor yielded a substantial annual reduction in energy consumption, amounting to 5 million kilowatt-hours (kWh), and attained an Electrical Energy Intensity decrease of more than 10%.

ENERGY STAR PROJECT 4

- Iron Mountain, MI
- 1.0M kWh Saved
- 2.5% EEI Reduction

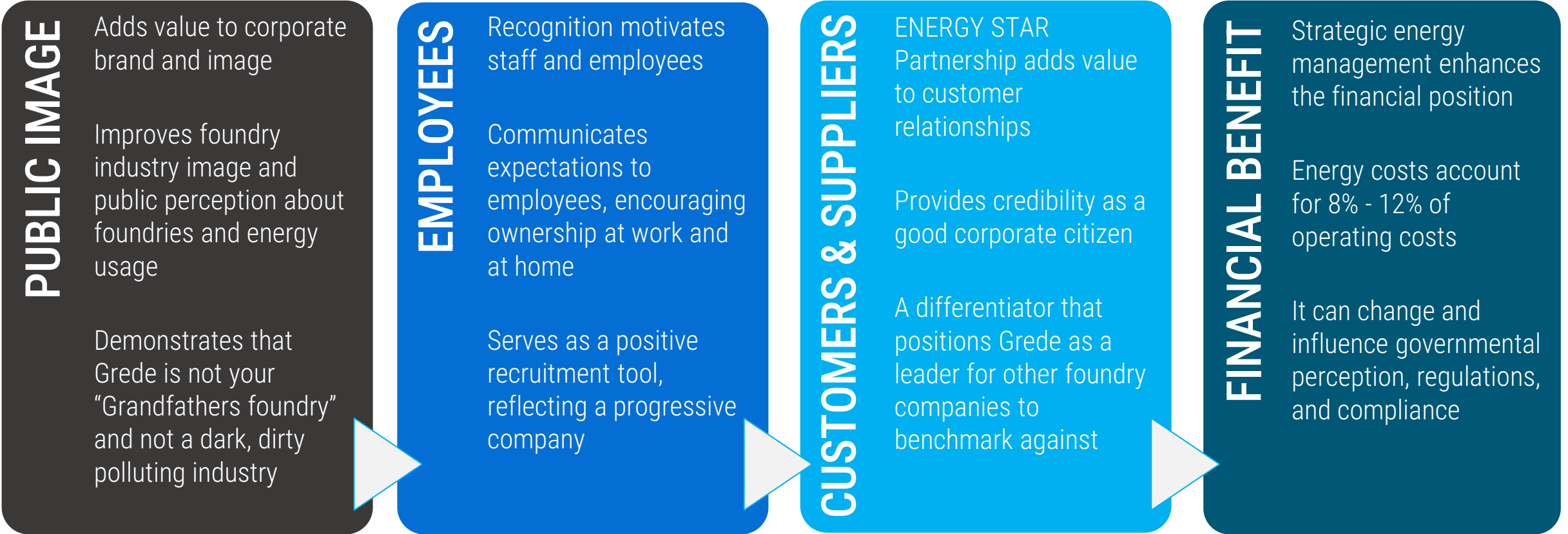
Optimized compressed air system, reducing number of air compressors from six to four. Achieved by implementing air compressor demand controls and upgraded four primary units to advanced Centrifugal air compressors with automated controls. Resulted in annual energy savings of 1.0 million kilowatt-hours (kWh) and 2.5% in Electrical Energy Intensity reduction.



ENERGY STAR PARTNER

- Grede received the ENERGY STAR Partner of the Year Award for Energy Management in both 2016 and 2017. This distinguished recognition placed them alongside esteemed industry leaders such as Boeing, GM, Hanesbrands, Raytheon, Corning, Colgate-Palmolive, Merck, and CalPortland.
- Grede remains an ENERGY STAR Partner and is on track to once again receive Partner of the Year recognition in 2023.
- Grede Browntown is on track to be recognized as the first ENERGY STAR Plant Certified Foundry.

ENERGY STAR Partnership



The Grede and Energy Star Partnership is a testament to our corporate values and unwavering commitment to sustainable practices and environmental stewardship. This partnership signifies more than just a collaboration; it represents a shared vision of sustainability that propels us forward.

By fully embracing Energy Star guidelines, which encompass measuring, tracking, and improving energy performance, benchmarking progress, and promoting energy efficiency to all our stakeholders, we not only align ourselves with industry best practices but also demonstrate our resolute dedication to environmental preservation.

This commitment extends throughout every facet of our organization, emphasizing our holistic approach to sustainability. Together, we will diligently work towards forging a greener, more sustainable future—one that not only benefits our business but also leaves a lasting positive impact on our precious planet.



**Conserving Water, Reducing Waste,
Casting a Greener Future**

Emissions



Achieving Foundry Net Zero

While achieving absolute net-zero emissions in a foundry is an ambitious goal, especially given the intense energy requirements of metal melting, a mix of strategies can make a significant difference in reducing our carbon footprint. By adopting a comprehensive approach, we can take significant steps toward reducing our carbon emissions. This includes optimizing processes to enhance energy efficiency and harnessing technological advancements. For instance, the use of advanced machinery, automation, and digital monitoring systems offers precision control over energy consumption, consequently reducing emissions.

Compliance

Grede is committed to environmental stewardship and actively works to protect air quality by effectively managing emissions and minimizing our impact on the environment. We rigorously adhere to both federal and state legal mandates to control emissions from our operations. Our robust compliance program includes the following efforts:

Regular Stack Tests:

- These tests are performed consistently to monitor and manage emissions.

Routine Baghouse Inspections:

- Baghouses, essential for air pollution control, are used to capture and filter fine particulate matter from exhaust gases. All plant baghouses undergo regular inspections to ensure optimal operation.

Comprehensive Dust Collector Inspections:

- All dust collectors are inspected at daily, weekly, monthly, and annual intervals to ensure they are effectively managing dust emissions.

Title V Air Permit Compliance:

- The Title V permit consolidates all air pollution control requirements for a facility, detailing emission limits, monitoring, recordkeeping, and reporting requirements. All Grede plants fully comply with Title V permit regulations.

Grede's proactive measures highlight our unwavering commitment to meeting compliance standards and actively contributing to the preservation of our environment for the generations to come

Greenhouse Gas (GHG) Emissions

GHG emissions are categorized into three main scopes:

- **Scope 1 Emissions:** These are direct emissions originating from activities within the organization, such as the combustion of fossil fuels.
- **Scope 2 Emissions:** These are indirect emissions that arise from energy sources the organization consumes, provided by external entities. Examples include electricity, steam, or chilled water supplied by utility providers.
- **Scope 3 Emissions:** These emissions come from external sources not directly controlled by the organization but related to its activities.

At present, we monitor and report on our Scope 1 and Scope 2 emissions. Scope 1 emissions encompass activities like utilizing coke for the melting process and burning natural gas within our facilities.

Greenhouse Gas (GHG) 2022 Results

SCOPE 1 – 2022 GHG emissions total

153,305 metric tons as CO₂e
Includes natural gas, propane, diesel, coal, coke

SCOPE 2 – 2022 GHG emissions total

224,937 metric tons as CO₂e
Includes electricity

SCOPE 3 – 2022 GHG emissions total

Not tracked at this time

Ultimate Recycler

Grede – Recycling Before it was Cool

The metal casting industry's commitment to recycling and sustainability extends far beyond the modern ESG Sustainability trend. Grede leverages sustainable practices not only out of responsibility to the planet but also due to inherent economic and material advantages. Grede stands as a testament to how traditional industries can be leaders in sharing good business practices and contribute to a more sustainable future.

Recycling and Sustainability in Metal Casting

Scrap Metal: Foundries have always been large consumers of scrap metal. This includes both post-consumer scrap (from used products) and post-industrial scrap (from manufacturing processes). Melting and refining scrap to produce new castings is often more energy-efficient than producing metal from virgin ore.

Yield Improvement: By optimizing the casting process, we aim to maximize usable casting while minimizing metal waste.

Dross and Slag Reclamation: By-products from the melting process, such as slag in iron casting, can be further processed to reclaim any trapped metal.

Sand Reclamation: Grede uses large quantities of sand for molds. After casting, this sand can be reclaimed using mechanical and thermal processes, and then reused in making new molds. This reduces the need to source new sand and minimizes waste.

Waste Sand Beneficial Reuse: Sand that can't be reclaimed for mold-making is repurposed for other uses, such as road construction or agricultural applications, preventing the sand from ending up in landfills. Even the waste that is sent to a landfill is utilized by the landfill operators as cover material, negating the need to source other products.

Heat Recovery: Given the high temperatures involved in melting metal, there are opportunities to recover and reuse heat, enhancing energy efficiency.

Energy-efficient Equipment: Modern foundries invest in equipment that consumes less energy and can operate more efficiently.

Water Recycling: Grede uses a closed loop water system, recycling water continually and reducing overall water consumption.



Scrap steel bundles which are 100% recycled material; including cans of Redi-Whip whip cream (below)



The metal casting industry is one of the **world's original recyclers** and plays a **key role in sustainability** by recycling input and output materials such as sand, metals, and scrap steel. Grede, for instance, **utilizes 96% US-sourced post-consumer material.**

Waste



Within the foundry industry, the casting process inevitably results in a considerable volume of spent foundry sand, a critical byproduct. Despite undergoing numerous recycling stages, the sand's quality eventually diminishes, making it unsuitable for high-quality castings.

Grede actively seeks avenues to repurpose this sand, aiming for its Beneficial Reuse in areas such as construction, agriculture, and geotechnical projects, substantially diminishing the sand's potential path to landfills. Although some landfills employ spent sand as cover material, a significant opportunity remains for Grede to augment recycling efforts and further curtail landfill disposals.

Environmental Management System (EMS)

Waste Stream Evaluation:

As a component of Grede's Environmental Management System (EMS), each facility consistently evaluates waste streams for potential recycling, reduction, and/or reuse opportunities. Every facility documents these assessments, which are then collectively reviewed and discussed annually during the EMS management review.

Hazardous Waste Elimination

- Our EMS review led to the identification and removal of the last parts washers containing solvents that were once deemed as hazardous waste. We are proud to announce that Grede now has zero hazardous waste.

Continuous Improvement – CIP Challenge

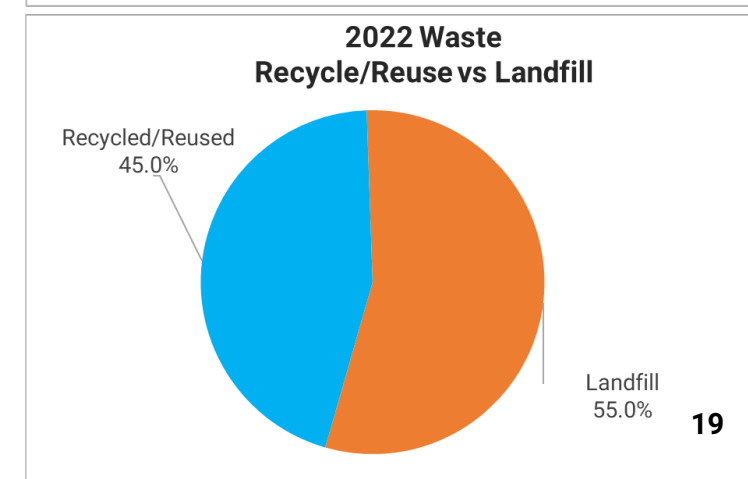
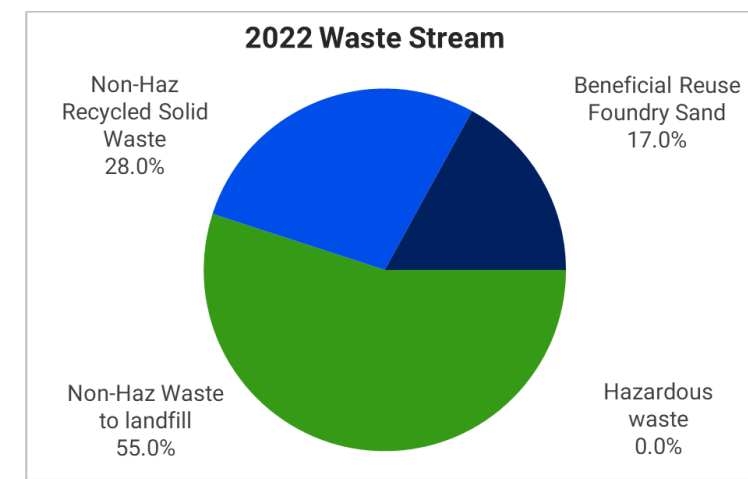
- Every facility is required to propose an environmental Continuous Improvement Project (CIP) focusing on reuse, reduce, or recycle objectives. These projects undergo evaluation by a cross-functional committee and are subsequently acknowledged at the annual Environmental, Health & Safety Summit.

Spill Control Best Practices

- 2022 marked a year with no reportable chemical spills.
- Every facility has a spill response plan in place.
- Monthly inspections are conducted on spill controls. Should a system test reveal any malfunctions, an immediate corrective action plan is activated.

Waste and Recycling Tracking:

- All waste streams are tracked and reported. This data forms a part of the Grede Monthly Operations System (MOS) and is also reviewed during our Quarterly on-site Management Review



Beneficial Reuse

Beneficial reuse of foundry sand refers to the practice of repurposing the spent sand, a byproduct of metal casting processes, for various beneficial applications instead of relegating it to waste. This sand is given new purpose in roads development, general construction, soil enhancement, agricultural applications, and as geotechnical fill.

Such an approach diminishes the environmental footprint of foundry operations while also yielding economic and sustainability advantages. In essence, the beneficial reuse of foundry sand not only diverts waste from landfills but also conserves natural resources, reduces costs, and is in line with broader sustainability goals.



Beneficial Reuse Highlights

Biscoe, NC **Potting Soil Project**

Grede Biscoe NC is partnering with a local potting soil manufacturer to creatively repurpose 100% of its spent foundry sand. By combining it with wood chips, they produce premium potting soil. This environmentally conscious effort has notably reduced landfill waste by approximately 10,000 tons, representing a remarkable 98% reduction in the facility's total waste output.

Wauwatosa, WI **Green Sand – Fly Ash Project**

In partnership with a local waste management company, Grede Wauwatosa WI actively repurposes 100% of the dust produced from their Green Sand Molding process. This dust is mixed with liquid waste at the landfill, serving as an alternative to fly ash. This initiative has led to a reduction of over 500 tons of waste being sent to the landfill, accounting for a 10% decrease in the facility's total landfill waste.

Browntown, WI **Airport Runway Project**

Grede Browntown is currently transporting beneficial reuse sand, including core butt sand and system sand, to the City of Monroe Airport for use as fill material in an upcoming taxiway project. The project is now in Phase 4, with engineering estimates predicting completion by December 2023. Notably, in 2022, the plant diverted 5,674 tons of sand from landfills. As of year-to-date 2023, they have diverted an additional 3,410 tons.

Meadville, PA **Site Clean Up Project**

Grede Meadville PA, in collaboration with a local waste management company, has achieved the beneficial reuse of 100% of their spent foundry sand. This effort was directed toward backfilling a former U.S. Steel cleanup site in the nearby area. All participants, including Grede Meadville PA, committed 100% of their waste sand, spent cores, and baghouse dust to this project. As a result, the facility saw a substantial 75% reduction in waste sent to the landfill. A commendable total of 8,000 tons were successfully repurposed through this initiative.

St Cloud, MN **Cement Project**

Grede St. Cloud MN entered a fruitful partnership with a Portland cement plant located in Mason City, Iowa, promoting the eco-friendly practice of beneficially reusing spent foundry sand in the cement plant's operations. Throughout 2022, as a part of this collaborative effort, a consistent monthly allocation of 500 tons of spent foundry sand was designated to this initiative.

New Castle, IN – Iron Mountain, MI – Reedsburg, WI **Road & Construction Projects**

Grede New Castle, Reedsburg, and Iron Mountain maintain collaborative relationships with local construction and municipal authorities. They contribute used foundry sand for uses such as underlayment or fill material in road projects and local building developments. While these projects vary in scale, they play a pivotal role in diverting a 40% to 60% of used sand away from landfills. Additionally, they bolster local infrastructure and construction.

ENVIRONMENTAL CIP

The Grede Continuous Improvement Program (CIP) inspires our employees to play an integral role in our ongoing quest for enhanced environmental sustainability. Under the CIP, every facility is required to submit proposals for environmental projects centered on reuse, recycling, or reduction. The goal is to disseminate these initiatives as standard best practices throughout all our facilities.

In 2022, we received 24 formal project submissions. Each proposal was meticulously evaluated based on criteria such as Project Analysis, innovation, effort, effectiveness, and long-term sustainability. The standout projects were recognized and celebrated at our annual Environmental, Health & Safety Summit.



Creating a safer and sustainable future, together

Environmental CIP #1

- Saint Cloud, MN
- Bentonite Recovery

The introduction of a Bentonite Recovery system is a significant milestone in our operations. Its primary aim is to reclaim bonding material from the dust generated by the Disa sand system. With this project, we've set an ambitious target to efficiently recover up to 90% of the annual dust output, equating to a notable 4,420 tons per year. Early results have shown the recovery of 1,500 tons of clay and 581 tons of carbon, totaling 2,081 tons of reclaimed material. The Bentonite Recovery system not only showcases our unwavering commitment to sustainability and resource optimization but also highlights our resolve to boost the efficiency of our production processes.



Environmental CIP #2

- Iron Mountain, MI
- Clean Water Discharge & Compressor Use

Our dedication to sustainability and efficiency is evident in two primary initiatives: Clean Water Discharge and Compressor Usage Reduction. In our quest to reduce energy consumption, we've optimized our plant's air compressor operations by integrating an automatic pressure regulation system. This system adjusts the compressors in real-time based on changing usage patterns. In tandem with this, we've made considerable strides in reducing wastewater generation from our air compressors and associated machinery. In the past, the presence of excessive oil and contaminants in the wastewater necessitated expensive third-party disposal. We've addressed this by introducing oil-water separators. These devices enable us to process and then release the treated water into the city's sewer system, adhering to permissible limits. This not only eradicates the need for third-party disposal but also obviates the requirement for secondary containment around compressor discharges.

Environmental CIP #3

- Biscoe, NC
- Coolant Recovery Systems

In a concerted effort to optimize our machining processes and reduce waste, we've implemented a comprehensive Coolant Recovery system. This system encompasses several key components, including the installation of coolant recovery systems on metal chip hoppers, the reprogramming of all machine chip conveyors and augers to run intermittently rather than continuously, the addition of drains to all chip hoppers, and the incorporation of skimmers to efficiently remove tramp oil. These collective measures have translated into tangible results, as we now successfully recover 950 gallons of coolant every two months.



Water Conservation

Grede has made considerable progress in water conservation within our manufacturing operations. Historically, foundries have been known for their high-water consumption, particularly the non-contact water employed for cooling machinery and Cupola exteriors.

Our significant reduction in water usage is attributed to two main strategies. The installation of closed-loop water cooling systems. And integration of water-efficient equipment.

These initiatives have led to a significant reduction in both water consumption and wastewater discharge. To strengthen our commitment to conservation, we have implemented training and best practice procedures to monitor, detect, and promptly address any leaks in our manufacturing processes, ensuring efficient water usage and minimized waste.



Water Facts 2022

- 779,214.15 cubic meters of water usage in 2022, up 10% from 2021 while production was up 11%
- Near-zero contaminated waste-water
- Over 95% of the water used at Grede is part of a closed-loop system
- No water used at Grede impacts high biodiversity water bodies

Water Savings Key Components

- Regularly monitor water usage and continually seek methods to reduce it, guided by the ISO 14001 system CIP program.
- Before using on-site water, contractors working on-site are required to discuss their planned water usage.
- Invest in water-efficient equipment and machinery to diminish water consumption during casting and other processes.
- Optimize sand processes to decrease water consumption used for sand conditioning and reclamation, thereby bolstering efficiency.

3D Sand Printing Technology 2022 Water Savings

- 5,600,000 gallons (approx. 21,197 cubic meters) of water saved annually.
- Based on two printers operating in 2022. Savings will increase by 50% with the addition of a third 3D Sand core printer

Water Conservation Achievements

Water Conservation Project #1

- Saint Cloud, MN
- Savings 2,900,000 gallons water annually

In our commitment to sustainable practices, we have launched a significant water reduction project at the St. Cloud plant. This project specifically targets the issue of single-pass water usage, which accounts for a substantial 39% of total annual water consumption, equating to 15,000,000 gallons annually. The project includes installing a cooler on core machine L40, which is expected to yield annual water savings of 1,500,000 gallons. Simultaneously, implementing a cooler on impactor hydraulics, which will save an additional 1,400,000 gallons per year. When combined, these measures will result in a total annual water savings of 2,900,000 gallons for the plant. This not only promotes water conservation but also contributes to significant financial savings.

Water Conservation Project #2

- Wauwatosa, WI
- Discharge water elimination

The Non-Contact Rerouting Project is designed to address the issue of discharging BAC non-contact cooling water into the stormwater system. To elevate our environmental stewardship, we've implemented a closed-loop system at the BAC facility. This new system channels the cooling water directly back into the cooling tower, negating any water discharge into the storm sewer. This proactive measure not only protects the stormwater from potential contamination but also underscores our dedication to sustainable and conscientious water management practices.

At the forefront of innovation, our electric vehicle engineering, design, testing and validation capabilities are driving the future of sustainable transportation



Leading the way – future ready

Commitment to EV Revolution



EV Future

As the automotive industry continues to evolve, it's clear that the future is electric. EV penetration is the largest transformation in the auto industry since the 1950s and is expected to be 50% of global vehicles sales by 2035. Not only do we believe it's the responsible choice for the environment and the future of our planet, but it also presents significant opportunities for market growth, new opportunity and innovation.

EV Commitment

By embracing the shift towards electric vehicles, we are committed to leading the charge in shaping the future of the industry and a more sustainable future. Grede is positioned on the front end of EV, paving the way for current customers transitioning into EV and new business with emerging EV companies. We are committed to driving progress towards a more sustainable future for our planet and customers.

EV Collaboration

The Grede EV team is taking a collaborative approach to design with customers, positioning itself at the forefront of EV development. This approach is aimed at helping current customers transition into the electric vehicle market and developing new business relationships with emerging EV companies. Grede is developing and quoting millions of dollars in cast iron solutions to advance the EV market.



EV Engineering and Product Development

- Weight characteristics of EVs, as well as consumer preferences for larger autos, position iron casting as a **compelling solution**.
- Optimization of **diverse metal technologies** and design, with an emphasis on the EV shift and **lightweighting trends**, is crucial.
- Innovative product development to **enhance casting strength** characteristics and precision castings is also a priority.



Driving the future: Sustainable engineering and design

- Grede distinguishes itself from competitors through its **comprehensive manufacturing expertise**, a dedicated team of **specialists**, and **state-of-the-art tools**.
- Providing end-to-end **development support**, we ensure that every suggestion is meticulously analyzed for **functionality**. This thorough approach ensures that our designs are not only **innovative but also viable**.



Driving Innovation, Efficiency and Design Excellence

- Our services at Grede go beyond mere solutions; they exemplify our belief that there is often a **better process and design** waiting to be discovered.
- We delve deeply, **challenging the status quo**, and demonstrate through our offerings that **innovation and improvement** are always on the horizon. Our commitment is to consistently **elevate standards**, ensuring our clients remain at the forefront of **efficiency and excellence**.

Casting Lightweighting and Design



Lightweighting Demand

As the transition to Electric Vehicles (EVs) continues, the exact timeline for EV market dominance remains uncertain. However, one thing is clear: the demand for lightweight casting is unequivocal and immediate.

Regardless of when the electric vehicle (EV) market reaches its full maturity, the benefits of reducing weight, including enhanced efficiency and decreased energy consumption, firmly establish lightweighting as an essential strategy for both the current and future of all vehicle markets.

Grede has consistently been at the forefront of design and engineering in lightweight castings. With years of experience and expertise, we have pioneered innovations and set benchmarks for the industry, emphasizing our commitment to advancing sustainable and efficient solutions.

As the industry evolves, we continue to lead, consistently optimizing designs for the ultimate in lightweight efficiency and functionality.

Grede Design Expertise

Design Optimization

- Expertise to address design for optimal casting production while still meeting requirements for fit, form, and function is essential.
- Engineers with product knowledge use advanced computer optimization tools to identify a better structure, reducing mass with equal or improved structural integrity, resulting in a more efficient design.
- Our knowledge and experience allow us to navigate the intricacies of the casting process, ensuring that the optimized design also includes design for manufacturing..

Material Optimization

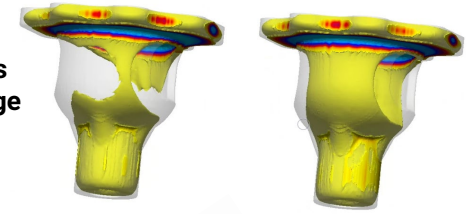
- Material expertise enables us to pinpoint the optimal materials that meet the production requirements and deliver the highest efficiency in production while minimizing costs.
- Alternative or higher-strength materials may allow for design modifications and lightweighting without sacrificing performance.
- Our expertise enables us to take full advantage of material options, determining the grade of iron based on requirements, and selecting the material best suited for the application.

Advanced Manufacturing Techniques

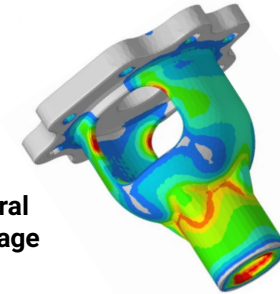
- 3D printing techniques can produce complex geometries that are optimized for lightweighting without the constraints of traditional casting processes.

Design Optimization

Casting Process Simulation Image



FEA Structural Analysis Image



Optimized functional design and optimized manufacturing design, in parallel.

From the outset of Grede's involvement, design for manufacturing is integrated into the design and development process. Leveraging our product-knowledgeable engineers and extensive expertise in foundry engineering,

Grede collaborates with its customers to design and develop products. These products are optimized for both functional requirements and the manufacturing process, resulting in lightweight, cost-effective solutions.

3D Sand Printing Technology

Grede is the largest independent foundry in North America producing sand cores for production. The incorporation of 3D sand printing at Grede signifies a route towards enhancing sustainability within the industry. In 2022, Grede operated two 3D sand printers full-time and added a third in 2023.

3D printing not only offers design flexibility and faster production but also contributes to a more environmentally-friendly and economically-efficient operation by reducing material waste, energy consumption, and emissions.

3D Print 2022 Savings

Based on two printers operating in 2022. In 2023 three printers are running; increasing savings by 50%

Water
5,600,000 gallons

Electricity
235,880 kWh

Natural Gas
192,000 Mcf

Total MMBTU Reduction
200,804 MMBTU

Sustainability Benefits of 3D Core Printing

Reduced Material Waste: 3D printing allows for precise and efficient use of materials, minimizing waste. Traditional core manufacturing often involves the removal of excess materials, resulting in waste.

Energy Efficiency: 3D printing is more energy-efficient than conventional core production. By selectively depositing material layer by layer, it minimizes the energy required for melting and molding, making it a greener option.

Customization and Optimization: 3D printing enables Grede to create highly intricate and customized core designs. This level of customization allows for better optimization of core shapes, leading to improved casting efficiency and reduced material consumption.

Recyclability: 3D printing materials are recyclable, allowing Grede to reduce environmental impact by reusing or recycling excess or defective prints.

Reduced Material Usage: 3D printing technologies use more sustainable and fewer binding agent materials, contributing to a more environmentally friendly process.

Faster Prototyping: The rapid prototyping capabilities of 3D printing enable foundries to test and refine core designs more quickly. This agility can lead to the development of more sustainable casting processes with fewer iterations.

Reduced Water Usage: 3D printing reduces water consumption in the core manufacturing process, contributing to significant water conservation efforts.

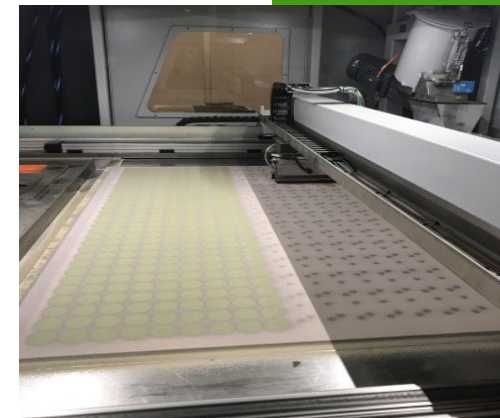
Lifecycle Assessment: Sustainability is not just about the manufacturing process but also considering the entire lifecycle of the product. 3D printing allows for easier monitoring and assessment of the environmental impact of core production, facilitating ongoing improvements in sustainability.

Reduced Emissions: By utilizing 3D printing for core production, Grede can produce cores locally, reducing the carbon footprint associated with long-distance transportation and logistics.

Improved Working Conditions: 3D printing can automate repetitive and labor-intensive tasks, leading to safer and healthier working conditions for foundry employees.

Less Tooling Waste: 3D printing eliminates the need for physical tooling, reducing waste and the associated environmental impact including tooling construction and disposal.

Resource Conservation: By utilizing 3D printing for cores, Grede can extend the lifespan of molds and reduce the need for frequent core replacements. This conserves resources and reduces the overall environmental impact.



A glowing, translucent globe of the Earth is the central focus, resting on a bed of vibrant green moss. The globe is illuminated from within, casting a soft blue and green glow. The continents are visible, with Africa and Europe being prominent. The background is a soft-focus scene of green foliage and blue bokeh lights, creating a serene and natural atmosphere. A semi-transparent white text box is overlaid across the center of the globe, containing the main message in blue text.

Procure Responsibly, Sustainably, and Ethically
Our Promise to the Planet

Responsible Procurement

Responsible Procurement and Supply Chain Management is a critical component of ESG Sustainability. It drives efficiency, reduces costs, and ensures customer satisfaction by streamlining operations and optimizing resources. Furthermore, it plays a crucial role in risk mitigation, supporting business continuity in challenging times. When aligned with strategic goals, it fosters innovation and resilience through collaboration with suppliers.

In 2023, Grede initiated a comprehensive review and redesign of its supply chain management. A roadmap is currently being developed for implementation in 2024. In today's competitive, globalized landscape, supply chain management is not merely a function; it's a strategic imperative for business success.

Supply Chain Structure

| | |
|--|--|
| | Optimizes operations by ensuring the efficient flow of goods, information, and finances throughout the supply chain. This efficiency translates into cost savings, reduced waste, and improved resource allocation |
| | Critical for meeting customer demands by ensuring that products are available when and where we need them, it enhances customer satisfaction, fosters loyalty, and ultimately drives revenue. |
| | Managing risk is essential in an increasingly complex and globalized world; supply chain disruptions can arise from various sources. Effective supply chain management helps identify, assess, and mitigate risks, ensuring business continuity. |
| | Adapt to changing market conditions because an agile supply chain can quickly respond to shifts in demand, emerging opportunities, diversification or challenges, allowing businesses to maintain a competitive edge. |
| | Aligns with strategic objectives to support business growth and profitability by ensuring that operational goals, strategic imperatives and values are in sync with broader Grede strategic imperatives. |
| | Collaboration with Suppliers to foster strong relationships with suppliers to maximize supply chain value. This involves encouraging innovation, ensuring accountability through audits and scorecards, and promoting continuous performance improvement. |



Responsible Procurement Commitments

We are dedicated to sustainable and responsible sourcing within our supply chain to ensure that our business operations adhere to the highest standards of environmental sustainability, social responsibility, and ethical governance.

Our commitment to responsible procurement in the supply chain encompasses several key components, all of which are integral to our Supply Chain Management redesign in 2024.



- 1. Ethical Practices:** We commit to sourcing products and materials exclusively from suppliers who uphold ethical labor practices and human rights in their operations.
- 2. Conflict Minerals:** We will undertake comprehensive due diligence to ensure that our supply chain is free from conflict minerals, thereby contributing to global efforts to mitigate conflict-related issues.
- 3. Environmental Stewardship:** We are dedicated to reducing our environmental impact by partnering with suppliers who share our commitment to reducing carbon emissions, conserving resources, and adopting sustainable production methods.
- 4. Compliance:** We will rigorously adhere to all laws and regulations related to responsible sourcing, labor practices, environmental standards, and ethical governance.
- 5. Supplier Collaboration:** We will actively collaborate with our suppliers to improve their sustainability practices. This includes providing guidance, sharing best practices, and offering support to enhance their ESG performance.
- 6. Stakeholder Engagement:** We highly value input from our stakeholders, which includes customers, employees, and investors, in shaping our responsible sourcing practices.
- 7. Communication:** We will actively communicate our unwavering commitment to ESG supply chain responsible sourcing to our shareholders. We will provide transparent reporting of our progress, successes, and challenges.
- 8. Risk Mitigation:** We will implement comprehensive risk mitigation strategies throughout our supply chain to identify, assess, and address potential risks that may arise.
- 9. Scorecards:** We will employ scorecards to assess and monitor supplier quality, delivery, performance, financial status, and relationships, ensuring that they meet our requirements and standards.
- 10. Continuous Improvement:** We acknowledge that responsible sourcing is an ongoing journey. We commit to continually monitoring and assessing our supply chain to identify opportunities for enhancing our ESG performance.
- 11. Transparency:** We are dedicated to proactively nurturing transparency and accountability throughout our supply chain, ensuring that all stakeholders are not only well-informed but also actively engaged, including the reporting of measurable metrics and scorecards.
- 12. Audits:** Regular audits will be conducted to assess compliance with our policy and to identify areas for improvement. Both internal and external third-party audits will be carried out by qualified professionals to ensure accuracy and objectivity.
- 13. Consequences of Non-Compliance:** In the event of non-compliance, appropriate actions will be taken, which may include suspension or termination of supplier relationships, contingent upon the severity and persistence of non-compliance.
- 14. Employee Training & Awareness:** We will implement training and awareness initiatives to educate our employees on the significance of responsible sourcing and sustainability practices, nurturing a culture of accountability and responsibility.

Responsible Procurement Policies

Grede is committed to the ethical, sustainable, and socially responsible sourcing of raw materials and products within our supply chain. Strong policies pertaining to conflict minerals and raw material sourcing are foundational pillars of our responsible procurement and supply chain management. These policies serve as guiding principles that empower us to navigate intricate global supply chains while upholding unwavering ethical standards and mitigating potential risks.

In 2024, Grede will leverage supply chain mapping, a visual representation of the flow of products and services from suppliers to customers. This strategic tool will aid us in comprehending and enhancing our supply chains by identifying critical components, dependencies, and potential risks. Through this innovative approach, we strive to ensure the utmost transparency and efficiency in our supply chain operations, further reinforcing our commitment to responsible sourcing and sustainable practices.

Conflict Minerals

Conflict minerals are sourced from regions characterized by armed conflict and human rights abuses, particularly in Central Africa. These minerals are essential components in electronics, automotive, aerospace, and other industries. Their extraction and trade in conflict-affected areas have often fueled violence, funded armed groups, and led to human rights abuses, including forced labor and child labor. These minerals, also known as the '3TG minerals,' include

- Tantalum – Used to make capacitors in devices like smartphones, laptops, and tablets.
- Tin – Used in soldering electronic components and the production of food packaging.
- Tungsten – Used in aerospace and defense due to its high melting point and strength.
- Gold – Used widely, from jewelry to electronics, due to its conductivity and malleability."



Conflict-Free Mineral Policy Statement

Grede is committed to ethical and responsible sourcing practices that contribute to the well-being of communities and uphold human rights globally. This Conflict Minerals Policy outlines our dedication to avoiding the use of minerals sourced from regions such as the Democratic Republic of Congo (DRC) and adjoining countries, which have been associated with conflict, human rights abuses, and environmental degradation. It encompasses the sourcing, procurement, manufacturing, and distribution of products that may contain conflict minerals. This policy is compliant with the Dodd-Frank Wall Street Reform and Consumer Protection Act, and it applies to all employees, contractors, suppliers, and partners associated with Grede.



Raw Material Sourcing Policy Statement

Grede's commitment to responsible sourcing of raw materials is unwavering. We prioritize ethical standards, environmental responsibility, and collaboration throughout our supply chain. We work closely with our suppliers to ensure fair labor practices and sustainable production methods, fostering transparency and continuous improvement. Our dedication extends to our stakeholders, including customers, employees, investors, and communities. We strictly adhere to regulations and take decisive action against non-compliance.

Supply Quality Manual

Grede's Supplier Quality Manual incorporates ESG sustainability criteria, affirming responsible product sourcing. It is widely accessible to all suppliers, available on the Grede website or upon request. The manual undergoes regular review and updates, at a minimum annually but more frequently as required.

The Manual encompasses sections defining its Purpose, Scope, Supplier Groups, Quality System Requirements, Changes and Deviations, Packaging and Shipping, Nonconforming Material, Production Part Approval Process (PPAP), Evaluation of Suppliers, and Right of Entry and Verification.

This comprehensive manual demonstrates Grede's commitment to responsible and sustainable sourcing practices throughout its supply chain.



Supplier Quality Manual Key Elements

POLICY

Grede's supplier policy emphasizes quality, confidentiality, punctuality, continuous improvement, responsive service, and safety. Suppliers must also notify Grede in advance of any proposed material or process changes, covering product design, materials, manufacturing processes, location, and sub-supplier sourcing.

PURPOSE

Grede's supplier requirements and expectations emphasize that the Supplier Quality Manual isn't the sole guideline source and highlight the importance of change notifications and approvals.

SCOPE

Grede categorizes suppliers as Key, Non-Key, or Inspection, with Exhibit 1 specifying their requirements. Changing these group assignments necessitates approval from Grede Plant Purchasing and Quality.

SUPPLIER GROUPS

Grede's supplier classification system includes key suppliers crucial for production and material changes. Key suppliers meet specific criteria and provide certificates of compliance. Non-key suppliers support manufacturing, and inspection suppliers are external entities like sorting companies and labs. Purchase orders detail additional requirements and deviations.

QUALITY SYSTEM REQUIREMENTS

Key suppliers must be ISO 9001 or IATF16949 registered, with audit rights. Exceptions need approvals from managers and possibly Grede customers. Non-key suppliers require Grede-approved self-surveys, while calibration and PPAP service providers must be ISO/IEC17025 accredited. Product traceability is essential for safety-critical castings.

CHANGES AND DEVIATIONS

Change notification guidelines, following the AIAG Production Part Approval Process (PPAP). All process and product changes need written approval from Grede. Communication of change control requirements is done in writing, and shipments with changes are contingent on written approval from Grede Purchasing. Deviation requests must also be submitted in writing and approved before shipping non-standard material.

PACKAGING AND SHIPPING

Containers, whether returnable or new, must bear correct labeling in the appropriate location. Before using these containers for shipping new products, any previous labels on the containers, pallets, and top caps must be removed.

NONCONFORMING MATERIAL

These rules underscore the supplier's responsibility for covering expenses related to non-conforming material, requiring them to formally request deviations in writing to Purchasing and Quality. Shipping non-conforming material is strictly prohibited without written approval from Quality.

PRODUCTION PART APPROVAL PROCESS (PPAP)

PPAP is required based on the Purchase Order, typically at Level three, unless stated otherwise. Suppliers adding value, such as machining or painting, must provide annual Certificates of Compliance. Heat-treated parts require an annual Certificate of Compliance report with hardness results.

EVALUATION OF SUPPLIERS

Grede maintains the right to inspect supplier facilities to ensure compliance with purchase order and specification requirements, covering all aspects of parts, processes, and quality systems.

SOCIAL

"People are at the core of everything we do at Grede – Social ESG initiatives are not just our responsibility, but a powerful means to drive positive change and empowering communities."

Cary Wood, Grede CEO



SOCIAL: The impact our activities have on society and how we interact with our stakeholders

Employee Health & Safety: We prioritize creating a safe and healthy work environment that supports the well-being of our employees, fostering their productivity, satisfaction, and overall success. By integrating health and safety practices into our sustainability initiatives, we cultivate a culture that not only promotes the welfare of our workforce but also contributes to a sustainable and responsible future.

Diversity, Equity & Inclusion: We are committed to promoting diversity, equity, and inclusion throughout our workforce. We firmly believe that creating a workplace that values and respects the unique backgrounds, perspectives, and experiences of all individuals is not only the right thing to do but also essential for fostering innovation, creativity, and collaboration.

Employee Development & Resources: We recognize that our employees are at the heart of our success and our ESG commitment. We prioritize employee development and resources, acknowledging our team as a fundamental asset. Nurturing their growth, well-being, and ensuring equitable resource access is integral to our sustainable and responsible business practices.



Community Impact: We are committed to creating a positive impact on the communities where we operate. Our dedication extends to supporting our communities by actively promoting contributions to local economies, providing support for community development programs, and taking an active role in charitable giving initiatives.

Customer Satisfaction: We place great importance on our reputation for delivering high-quality castings. We strictly adhere to safety-critical and quality standards. We believe that satisfied customers are key to the long-term success and sustainability of our business, and we strive to meet and exceed their expectations.

Social ESG Significance

At Grede, we firmly believe that the 'S' in ESG is not just an element of corporate sustainability – it is the heart and soul of our business. We recognize that our success is intricately tied to our social impact and how we engage with the world around us.

Our employees are our most valuable asset. We prioritize their well-being, safety, and personal development, ensuring a workplace that fosters diversity, equal opportunities, and inclusivity. By doing so, we not only create a positive and empowering work environment but also attract top talent and ensure their long-term commitment to our company. By investing in our people, we invest in our future success.

Beyond our internal practices, we are deeply committed to being a responsible corporate citizen. We actively engage with the communities in which we operate, supporting local initiatives and striving to make a positive difference. By aligning our business goals with the betterment of society, we contribute to the creation of vibrant, sustainable communities.

Ensuring the safety of products is not merely a regulatory requirement but a fundamental ethical responsibility for any socially responsible organization. A commitment to product safety involves rigorous quality control, adherence to safety standards, transparent communication with customers, and a proactive approach to identifying and addressing potential risks.

Our risk management strategy is an integral part of ESG. By proactively addressing social issues, we reduce operational risks, enhance our reputation, and build lasting relationships with our stakeholders. We firmly believe that our commitment to social ESG is not only the right thing to do but also essential for our long-term success and the sustainability of the planet.

It is our belief that businesses can thrive when they operate ethically, transparently, and with a genuine concern for the well-being of all those they impact. We firmly believe that by putting social responsibility at the forefront of our business practices, we can contribute to a better world while ensuring our long-term prosperity.



Workplace safety and sustainability are interconnected



Our Workforce, Sustaining Our Future

Safety First – Protecting Our Most Valuable Resource

At Grede, we hold our employees in the highest regard as they are our most valuable resource, and we prioritize their safety above all else. At Grede, employee safety is always our top priority.

We are proud of our world-class safety record while recognizing that foundry work can be difficult and potentially hazardous at times. Our safety data is significantly better than the national average for iron foundries, which we attribute to our unwavering commitment to safety, a dedicated safety team, and our well-trained employees.

We strive to create a culture where safety is ingrained in everything we do. We empower our employees to be proactive in identifying potential safety concerns and taking appropriate action to prevent incidents. Our core belief is that all incidents can be prevented, and we are committed to achieving this goal. We continuously review our safety and health programs to identify and address potential hazards and risks.

By prioritizing safety in all aspects of our operations, we aim to provide a safe and healthy workplace for our employees, protect the environment, and ensure the long-term sustainability of our business.

Our commitment to safety and health is unwavering, and we will continue to prioritize it in all aspects of our business."



KEY ELEMENTS OF SAFETY

- Policies and Procedures: Effective and comprehensive.
- Training: Includes new hire, ongoing, and refresher training.
- Risk Assessments: To identify hazards and potential exposure.
- Continuous Improvement: Involving ongoing enhancements.
- Incident Reporting and Investigation: Covering accidents and near misses.
- Safety Inspections: Conducted regularly with documented assessments.
- Safety Committee: Inclusive of all work areas and levels.
- Emergency Preparedness: Includes a plan for responding to emergencies.

2022 Safety Results

Grede
Reedsburg, WI
2 million
Hours worked without a
lost time incident

Grede
Menomonee Falls, WI
1 million
Hours worked without a
lost time incident

- **124,397 Safety Training Hours**
Completed training for new hires & refresher in 2022
- **17,966 Safety Observations**
Proactive approach to safety including corrective actions
- **29% Reduction in Lost Time Day**
Days out due to workplace injury 2021 vs. 2022
- **67% Better TRIR Industry Average**
Foundry average TRIR 6.6, Grede 2022 actual was 2.1
- **69% Better DART Industry Average**
Foundry average TRIR 4.0, Grede 2022 actual was 1.2
- **82% Wellness Program Participation**

Awards

Grede St. Cloud, MN:
Meritorious Safety Award presented by the Minnesota Safety Council for Outstanding Safety Achievement.

Grede Liberty, WI:
Recipient of the American Foundry Society (AFS) Safe Year Award.

Eagle Award winner for achieving zero OSHA recordables in 2022.

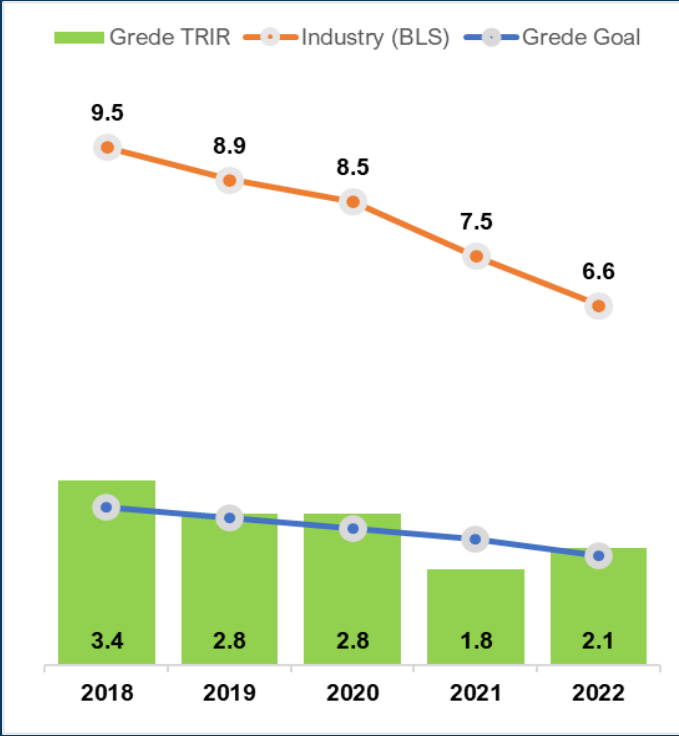
Grede Menomonee Falls, WI:
Recipient of the American Foundry Society (AFS) Millionaires Safety Award in 2022.

Grede Reedsburg, WI:
Recipient of the American Foundry Society (AFS) Millionaires Safety Award in 2022.

President's Safety Eagle Award winner in 2022 for outstanding safety performance.

TRIR Rate

Total Recordable Incident Rate (TRIR), is a metric used to measure the number of OSHA recordable work-related injuries relative to the number of hours worked



We are pleased to report that our TRIR for 2022 was 2.1, which is considerably below the national foundry industry average of 6.6. This is a clear demonstration of our commitment to a safe and secure working environment for all our employees.

We recognize that maintaining a low TRIR rate is an ongoing effort, and we continue to prioritize health and safety in all aspects of our operations. **38**

Safety Programs

At Grede, we place the highest value on the safety and well-being of our employees.

To ensure this, we have implemented standardized safety initiatives across all our operations and continuously foster a safety-oriented culture.

These measures create a work environment in which our employees can work confidently, knowing that their health and safety are always our top priority.



Safety & Health Management System

SHMS is a formal framework for safety. Level 1 Procedures establish the overall structure of the system, while Level 2 Procedures describe 40 individual processes for each plant to implement.

Internal Audits

All Grede EHS systems undergo bi-annual internal audits, conducted by Corporate EHS and EHS Managers to proactively identify areas for safety improvement.

Incident Investigation

We have established a formal safety accident investigation process to ensure a thorough investigation is conducted following any safety incident. This process involves identifying the root cause, documenting the findings, and implementing corrective actions to prevent recurrence.

MetricSoft

This web-based information management system aids in sustainable improvements of EHS systems through tracking and managing EHS metrics or key performance indicators.

New Hire and Refresher Safety Training

We have a comprehensive safety training program in place, completed regularly by all employees across all locations..

Workers Compensation Administration

We have a formal process for all Workers' Compensation cases, including claims processing, care management, incident investigation, loss reporting, and case review.

Safety Brigades

Committees are in place at all locations, responsible for promoting and maintaining a safe work environment, identifying potential safety hazards, and developing strategies to mitigate those hazards..

Safety Flag Program

The Flag Program incentivizes Grede plants to continuously improve their EHS programs, strive for excellence, and promote a culture of safety and sustainability across the organization.

Safety Leadership

Safety is discussed with Leadership, Senior Management, and Executive leadership on a daily, weekly, monthly, and quarterly basis. All safety personnel meet weekly online to discuss safety concerns and share best practices.

STOP Observation process

Grede employs the DuPont STOP Observation process, a behavior-based safety system designed to immediately identify and correct unsafe behaviors.

Continuous Improvement

All locations complete two major improvement projects annually. These projects are aimed at identifying potential safety hazards, implementing preventative measures, and promoting a safety-oriented culture.



Grede Flag Program

To ensure the safety and well-being of employees, customers, and the environment, as well as to attain long-term success and sustainability, Grede has implemented the Grede Flag Program. This recognition program encompasses various measures such as regular audits and inspections, continuous training, education, and robust incident reporting mechanisms to monitor and improve the performance of its EHS management system.

Under this program, colored flags are awarded to plants based on their performance in meeting or exceeding expectations in EHS. The different colored flags awarded under the program are as follows:

- Green Flag: Awarded to plants that meet the expectations in EHS.
- Blue Flag: Awarded to plants that have exemplary EHS programs.
- Gold Flag: Awarded to plants that implement the best management practices for EHS.

Flags are awarded on an annual basis during the EHS Conference and proudly flown at the plant for the year. In 2022, St. Cloud, MN, and Reedsburg, WI were gold flag winners, receiving the highest honor for their consistent demonstration of best EHS practices. Biscoe, NC, and Iron Mountain, MI earned blue flags for their exemplary EHS programs.

The Flag Program incentivizes Grede plants to continuously improve their EHS programs, strive for excellence, and promote a culture of safety and sustainability across the organization."



Grede Flag Program Elements

SAFETY CIP

The Grede Continuous Improvement Program (CIP) empowers our workforce to take an active role in our ongoing commitment to enhancing safety. Under this initiative, every facility is encouraged to propose safety-focused projects designed to improve safety measures, with a specific emphasis on reducing hand and finger injuries, as well as minimizing sprains and strains at all our sites.

In the year 2022, a total of 18 formal projects were submitted, each undergoing a thorough evaluation process that considered a range of criteria, including Project Analysis, innovation, effort, effectiveness, and sustainability. The recipients of the project awards were recognized and celebrated during our annual Environmental, Health & Safety Summit."



Creating a safer and sustainable future, together

Safety CIP #1

- Biscoe, NC
- Ergonomic Improvements

"Ergonomic improvements have played a significant role in enhancing workplace safety and efficiency. Initially, employees were tasked with repetitively handling heavy cores weighing between 16 to 18 lbs each and using lift assists for moving 300 lbs patterns, posing significant ergonomic challenges. Through collaborative efforts with engineering, substantial changes were made. The CB22 core box was redesigned, increasing its cavities from 2 to seven and reducing the core's weight from 16 lbs to 0.75 lbs. Additionally, the transition from a Disa 32 pattern (steel) to a 2024 pattern saw a dramatic reduction in weight, from 400 lbs to 90 lbs. Further ergonomic enhancements included reducing another CB22 core from 18 lbs to 4 lbs and another core from 25 lbs to 15 lbs. These improvements not only resulted in impressive piece-part savings ranging from \$5.75 to \$23.16 per part but also significantly diminished ergonomic risks, ultimately creating a safer and more efficient working environment for employees.

Safety CIP #2

- Saint Cloud, MN
- Brokk Slag Removal Project

"The Brokk Project introduced a transformative solution to a labor-intensive task within the melt crew's responsibilities. Previously, two employees spent an average of six hours every weekend manually removing slag from the pressure pour vessel, amounting to over 3,000 lbs of slag removed by hand. With the acquisition of the Brokk, a remote-controlled chipping machine mounted on tracks, a new attachment was devised and installed for slag removal from a safe distance using remote controls. This innovation has dramatically streamlined the process, reducing the task to just one hour for a single employee while also keeping them at a safe distance from the intense heat and molten metal. Additionally, this approach eliminates the need to dispose of 6-8 slag paddles each week, resulting in enhanced efficiency and safety in the workplace.

Safety CIP #3

- Reedsburg, WI
- Melt Deck Safety Improvements

"The Melt Deck Safety Project addressed critical safety concerns associated with repetitive tasks conducted daily on the melt deck. With approximately 150 such tasks taking place during a single 10-hour shift, ensuring the well-being of employees was paramount. To enhance safety measures, a 6-foot demarcation area was established around the furnace opening, prohibiting employees from stepping within it to mitigate potential risks. Additionally, a protective wall was erected to safeguard employees during pouring operations, providing an added layer of safety. Furthermore, the project extended the handles on delivery devices, making these tasks more ergonomic and reducing physical strain on the workforce. These comprehensive safety enhancements have significantly improved the working conditions on the melt deck, underscoring the plant's commitment to the well-being of its employees."

At the heart of our **success** lies our **employees**, and we are committed to fostering a **safe, inclusive, and diverse** workplace that supports their **growth and development**

Diversity, Equity & Inclusion

An equitable and inclusive workplace benefits everyone. At Grede, we are dedicated to nurturing an environment where every associate feels valued, respected, and supported. We believe that when everyone has an equal opportunity to thrive, our collective potential for creativity, innovation, and success is magnified.

To measure our DEI advancements, we joined hands with our leadership team, scrutinized workforce diversity metrics, benchmarked against industry peers, sought insights from external experts, and critically reviewed our policies. The insights gathered from this assessment led to the formulation of our DEI policy.

In 2023, Grede is taking a significant step forward by establishing a DEI task force. Comprising a diverse group of employees, this task force will be at the forefront of our change initiatives. They will craft a strategic DEI roadmap and roll out a program aimed at enhancing awareness, understanding, and skills related to DEI across the entire organization.



Grede Diversity, Equity and Inclusion Policy Statement

At Grede, we are committed to promoting a workplace culture that is diverse, equitable, and inclusive. We value and respect differences and provide equal opportunities to all employees. We engage employees, encourage input, and prioritize ongoing education to foster belonging. We believe that promoting DEI is not only the right thing to do, but it also drives innovation and success.





Diversity, Equity & Inclusion – Baseline Results

At Grede, we recognize that to truly become an inclusive organization, we must place a premium on transparency, accountability, and the diversity of our workforce. Our baseline data isn't just numbers—it's a crucial starting point that allows us to measure ourselves against industry leaders, both within our sector and beyond. This pivotal information will pave the way for our 2024 DEI Roadmap. This strategic plan will encompass defined targets and specific steps designed to infuse diversity, equity, and inclusion into every facet of our operations.

DIVERSITY DEMOGRAPHICS

The demographic tables we've shared offer an in-depth look into our workforce composition, broken down by employee type, gender, race, and age.

While our individual contributor hourly labor force leans towards males—largely due to the inherent nature of foundry work—we are fully dedicated to improving gender balance throughout Grede. Our primary focus in this endeavor is on management and executive roles.

- Definitions**
- Individual Contributors defined as Hourly and Temporary labor
 - Leadership Management defined as Salaried, not including Executive Leadership group
 - Executive Leadership defined as Extended Grede ELT and General Managers

Age Demographics – Dec 2022

| Age Range | All Employees | Individual Contributors | Leadership Management | Executive Leadership |
|-----------|---------------|-------------------------|-----------------------|----------------------|
| Under 30 | 400 | 358 | 42 | 0 |
| 30 - 50 | 1,208 | 1,001 | 192 | 15 |
| Over 50 | 907 | 674 | 219 | 14 |

Gender Demographics – Dec 2022

| Age Range | All Employees | Individual Contributors | Leadership Management | Executive Leadership |
|--------------|---------------|-------------------------|-----------------------|----------------------|
| Female | 327 | 217 | 102 | 8 |
| Male | 2,188 | 1,816 | 351 | 21 |
| Not Declared | 0 | 0 | 0 | 0 |

Diversity Demographics – Dec 2022

| Race | All Employees | Individual Contributors | Leadership Management | Executive Leadership |
|--|---------------|-------------------------|-----------------------|----------------------|
| American Indian or Alaska native | 5 | 4 | 1 | |
| Asian | 15 | 10 | 5 | |
| Black or African American | 242 | 225 | 17 | |
| Hispanic or Latin | 259 | 240 | 18 | 1 |
| Native Hawaiian or Other Pac. Islander | 1 | 1 | | |
| White | 1,569 | 1,175 | 366 | 28 |
| Two or more Races | 17 | 13 | 4 | |
| Not Declared | 407 | 365 | 42 | |

Diversity, Equity & Inclusion – Key Components



At Grede, we believe that a diverse, equitable, and inclusive workplace is not only the right thing to do but also essential to our success as a company. We are committed to promoting a culture that values and respects differences, recognizing that diversity of thought and experience drives innovation and creativity.

We strive to create a workplace free from discrimination and harassment, where all employees are treated fairly and have equal opportunities to succeed. We invite all employees to join us in fostering a workplace culture that values and celebrates differences. In support of this vision, we commit to the following:

1. We will actively recruit and retain employees from diverse backgrounds, including underrepresented groups, and provide equal employment opportunities to all qualified individuals.
2. We will nurture an inclusive workplace culture that celebrates diversity and encourages all employees to bring their authentic selves to work.
3. We will offer ongoing training and education on DEI topics to all employees, including senior leadership, ensuring our policies and practices align with our DEI values.
4. We will hold ourselves accountable for progress towards our DEI goals by routinely measuring and reporting on our efforts, adapting as necessary for improvement.
5. We will engage with and support the communities in which we operate, forming partnerships with local organizations to further DEI initiatives.
6. We will maintain transparency in our DEI reporting and openly communicate our endeavors to stakeholders, including employees, customers, investors, and the broader community.

Diversity, Equity & Inclusion – Roadmap

At Grede, we acknowledge that to achieve our goal of becoming an inclusive company, we must prioritize transparency, accountability, and workforce diversity. To fulfill our commitment to this, we have established a 2024 Roadmap designed to intentionally promote diversity, equity, and inclusivity throughout all facets of our business. The DEI committee has outlined six essential tasks slated for full execution by 2024.



| GOALS | POLICY | DEVELOP | RECRUIT/RETAIN | CULTURE | MONITOR |
|---|--|---|--|---|---|
| Establish specific and measurable goals to ensure efforts are targeted and effective. Incorporate KPI targets into leadership annual goals. | Review HR policies and practices to ensure they are inclusive and equitable for all employees. Review all policies related to hiring, promotions, performance evaluations, and compensation. | Develop mandatory training for all employees, including unconscious bias training, inclusive leadership training, and diversity and inclusion awareness training. | Develop recruitment strategies to target diverse candidates. Post openings on job boards that cater to underrepresented groups and attend career fairs and events focused on diverse candidates. | Listen to and learn from diverse perspective to recognize more cultures. Conduct regular employee surveys to measure satisfaction and engagement. | Regularly monitor and measure progress, considering metrics such as employee retention rates, diversity of new hires, and employee satisfaction survey results. Publish the results to ensure transparency. |



Grede Leadership DEI Pledge

As members of the Leadership Team, we recognize our duty to nurture and enhance diversity, equity, and inclusion within our organization. We are steadfast in our commitment to fostering a welcoming and inclusive workplace where every employee feels valued and respected. Our pledge is to give precedence to diversity, equity, and inclusion initiatives, establish quantifiable goals, and take decisive steps to enact positive change.

Employee Resources

Allocating resources to foster employee well-being and development stands as a cornerstone of sustainability within Grede. This commitment not only strengthens our social and human capital dimensions of ESG but also enhances our capacity to navigate the rapidly changing business landscape.

The wellness and support programs at Grede offer benefits that extend beyond individual employees. They cultivate a more productive and engaged workforce and act as a magnet for top talent, improving our capability to attract and retain exceptional staff.



Vitality offers an interactive and **personalized wellness program**, simplifying the journey to your healthiest life. Whether you aim to lose weight, increase activity, enhance your diet, or simply uphold a healthy lifestyle, Vitality is your ideal companion. Being healthy enhances your appearance, uplifts your mood, reduces healthcare needs, and, overall, elevates your quality of life. With Vitality, embracing life to the fullest becomes effortlessly attainable.



Ulliance Life Advisor provides **individual counseling and expert well-being coaching**. Our well-being focus targets the most preventable and cost-intensive conditions, harnessing a blend of digital tools and resources. Programs assist employees in achieving a balance between personal and work life. This includes assistance in areas such as personal finance, grief counseling, help setting up legal documents, and more.



SWORD is a clinical **digital musculoskeletal (MSK) therapy provider** that leverages sensor technology to offer real-time feedback. All movement data captured is shared with the physical therapist, who then tailors the program based on the patient's actual performance. Patients utilize sensors and tablets provided by SWORD to conduct virtual therapy sessions at no additional charge.



Livongo provides advanced **technology combined with coaching** to support a healthier lifestyle, assisting in diabetes management, its prevention, high blood pressure control, and weight management. Enrollees gain access to smart devices like blood glucose monitors, blood pressure devices, and scales, enabling them to track metrics, observe trends, and generate reports. Additionally, they can avail themselves of 24/7 one-on-one expert coaching whenever required.

Employee Development

At Grede, our employees are at the heart of everything we do. They are partners in our journey toward sustainability and responsible business practices. Our Employee Development and Enrichment Education Programs are designed to empower our workforce, foster lifelong learning, and cultivate a culture of both personal and professional growth.

By investing in our employees, we enhance the strength of our organization and make positive contributions to society, our local communities, and the overarching ESG goals to which we are dedicated.



GROW WITH GREDE

GREDE GRADS

Grede's esteemed talent development program is tailored for recent graduates and spans two years. It provides an in-depth insight into manufacturing processes under the mentorship of seasoned leaders. The program encompasses rotations across diverse locations and functions, and blends formal training, on-the-job training (OJT), mentorship, and a culminating capstone project following an initial onboarding phase. Participants work in one or more locations, equipping them for managerial roles within the organization upon its conclusion.

CO-OPS & INTERNS

The co-op program is a crucial part of the "Grow with Grede" initiative, offering students real-world experience outside the classroom. It allows them to apply their academic knowledge, enhance their critical thinking skills, and explore potential careers. Exceptional participants may have the opportunity to join the Grede Grads rotational program or receive direct hire offers upon graduation.

CASTING COLLEGE

Grede's all-in-one Learning Management System (LMS) serves as the bedrock of our dedication to employee advancement, growth, and workforce development, which are central to Grede's strategic imperatives. The program offers several benefits, including:

- Assignment of eLearning courses with progress monitoring.
- Alignment of training with both individual and team development plans.
- Enhanced ability to attract and retain top-tier talent.
- Improvement in performance and productivity.
- Assurance of compliance with both legal mandates and internal guidelines.

MILITARY

At Grede, we profoundly respect and value the unwavering dedication and service of the brave individuals who have served in our nation's armed forces. Through our strategic 'Grow with Grede' initiative, we are deeply committed to forging collaborative partnerships with specialized programs that are designed to facilitate a smoother transition to civilian life and support these veterans in exploring and seizing new career opportunities.

CAREER DEVELOPMENT

Through Grede's comprehensive learning and development initiatives, including the Tuition Assistance Program, employees are actively encouraged to pursue further education. This empowerment enables them to chart the most suitable career path and cultivate their professional growth.

Investing in our Communities

Grede's dedication to the communities in which we live, and work exemplifies our pledge to being a responsible corporate citizen. By forming partnerships with organizations passionate about fostering a more equitable and inclusive society, we contribute to building communities that are stronger and more resilient, enriching the lives of all involved.

Our community engagement manifests in various ways, encompassing financial donations, volunteer work, and imparting our specialized knowledge and expertise. These endeavors not only uplift community well-being but also bolster our standing as a socially committed enterprise. Here are some illustrations of our community investments:

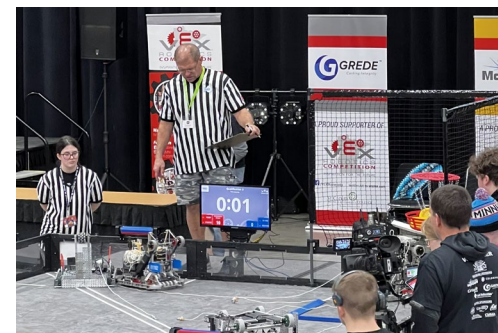
Committed to Our Communities:

- Grede St. Cloud, MN, amassed \$46K in support of the United Way of Central Minnesota.
- Contribution and assembly for the Go Baby Go Mobility Program.
- Donations for Breast Cancer Awareness through the sale of pink Grede merchandise every October.
- Sponsoring the LTU Lawrence Tech's Formula Electric team.
- The Biscoe Lion's Club receives our donations, which aid those with disabilities, disaster relief, hunger, childhood cancer, and community reconstruction efforts.
- Annual gifts of books and educational resources to the School District of Reedsburg, WI.
- Sponsoring local teams and organizations, like the Black Hawk Warriors baseball team in South Wayne, WI, and the signings for St. Rox Baseball Club in St. Cloud, MN.



Adopt-A-Highway

Grede Browntown, WI, is proud to participate in WI DOT Adopt-A-Highway program. With a commitment to both community and environmental responsibility, our team regularly dedicates time to clear the adopted highway of trash.



Minnesota Robotics Competition

Grede St Cloud proudly sponsored the VEX (Vulnerability Exploitability eXchange) State competition. 120 high school robotics teams from across Minnesota competed fiercely for spots to advance to the National competition.



Foundry in a Box - EPIC Event

Grede St Cloud took part in the EPIC Event (Exploring Potential Interests and Careers) held at St. Cloud Technical and Community College. Throughout the event, high school students delved into career opportunities available in the central Minnesota region.



UNI Melt Night

Grede proudly hosted and sponsored its inaugural Melt Night at the University of Northern Iowa (UNI) and its student group. The UNI Metal Casting & Additive Manufacturing Center plays a vital role in our academic partnerships and is integral to our "Grow with Grede" program.



UAB Blazer Motorsports Team

Grede is proud to sponsor an all-terrain vehicle for the University of Alabama at Birmingham's Blazer Motorsports team. The team gained experience by designing and constructing single-seat, all-terrain race cars, both for independent events and collegiate SAE competitions.



Back to School Stock Up

During the back-to-school season, Grede consistently donates school supplies to local schools across our plant locations. Most recently, our New Castle facility donated backpacks filled with school supplies during the Mt Lawn Speedway's back-to-school event in New Castle, IN.



It is essential to integrate technology, innovative design, and advanced engineering to create sustainable solutions for today and build a better future.



Product Quality

At Grede, our unwavering commitment to quality underpins our ability to consistently deliver exceptional results for our customers. We are driven to offer unparalleled value through a rigorous focus on product quality, reliability, and sustainability. The Grede Quality System (GQS) stands as a testament to this commitment, ensuring the highest standards in product excellence.

As a leading producer of safety-critical castings, our commitment to quality is something we hold in the highest regard. Safety-critical castings play a pivotal role in systems where failure is not an option, especially in the automotive sector where they're used in vital components like brake calipers and steering mechanisms. Therefore, it's essential that these castings are of the highest quality, manufactured using advanced materials and processes, and undergo rigorous testing to ensure utmost reliability and safety.

GQS – Grede Quality System Design

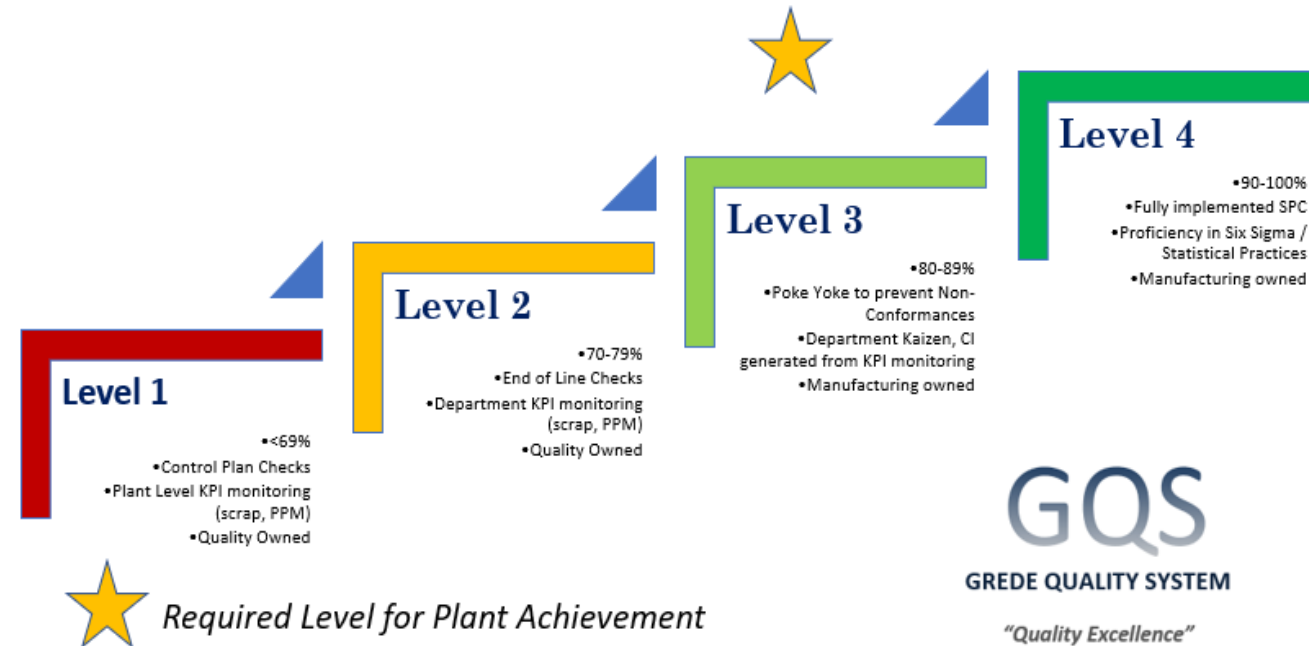
The Grede Quality System (GQS) is a continuous improvement strategy that prioritizes proactive defect prevention. It drives a shift of quality ownership from Quality Department to Manufacturing Leadership.

GQS Strengths

- Foundry and Machining focused standards to drive excellence in Quality.
- Rigorous standards are set for all Grede plants and their suppliers.
- Integrating IATF, ISO, VDA standards, and industry best practices.
- Clear expectations are set alongside transparent performance indicators.
- Plant leadership ensure the GQS is consistently implemented across plants.
- GQS auditors perform objective evaluations, ensuring compliance and overseeing corrective actions within our facilities.

Quality Performance Results

- Recipient of Paccar 10 PPM Award
- Recipient of Bosch Rexroth Zero Defects Award
- Zero Product Recalls. Zero Customer Service Campaigns



Strategic Outlook: Evolution to advanced quality systems

Grede's evolution towards advanced quality systems reflects a broader transformation in business perspectives, recognizing the pivotal role of quality in ensuring lasting success, customer satisfaction, and holistic sustainability. Our Grede Quality Strategic Outlook stands as a testament to this commitment.

By integrating the Grede Quality System, Project System, Sand Standard, Metal Standard, Tool Preventative Maintenance, IoT Software, and the Industry 4.0 IT-OT Alignment Strategy, we're positioned to elevate manufacturing standards.

At Grede, we don't just aim to meet benchmarks; we set them, embodying the ethos: Where Exceptional Quality Meets Excellence.

Key Strategic Components

Grede Quality System (GQS): A strategy centered on continuous improvement, emphasizing proactive prevention of defects.

Grede Project System (GPS): A uniform process employing standardized deliverables and six distinct quality checkpoints to guarantee a seamless product launch.

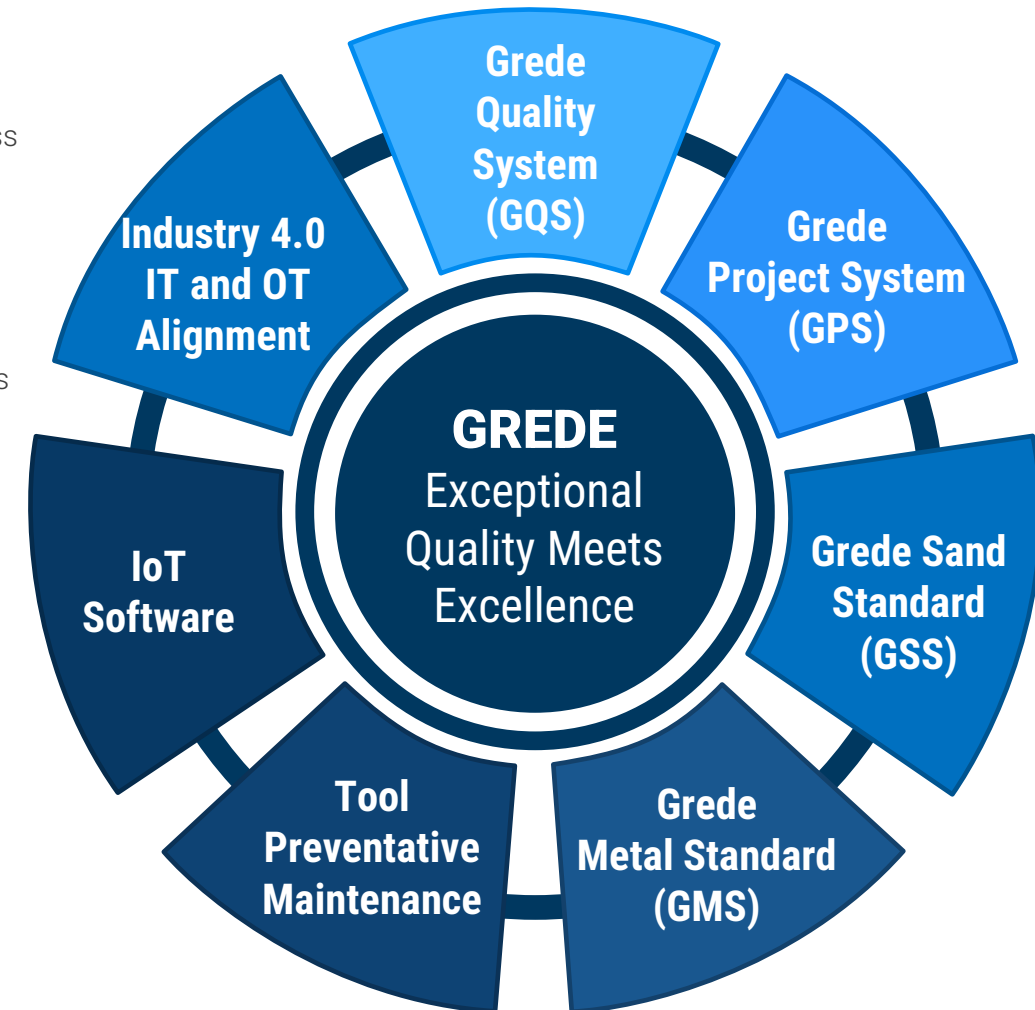
Grede Sand Standard (GSS): Equips the Grede team with essential knowledge and standardization, ensuring high-quality products through controlled and efficient processes optimization.

Grede Metal Standard (GMS): A unified approach across Grede, emphasizing best practices and thorough documentation for the melt process. Initially rolled out across Grede plants as Phase 1, with Phase 2 focusing on integrating metallurgy and process controls.

Tool Preventative Maintenance: A structured methodology ensuring the peak performance and longevity of manufacturing tools and equipment.

IoT Software: A robust, user-friendly platform that harnesses the potential of IoT, facilitating data collection and analysis.

Industry 4.0 IT and OT (Operational Technology) Alignment: Embracing the digital, interconnected, and automated paradigm of the Fourth Industrial Revolution to amplify sustainability across diverse industries.



Grede Quality Strategic Outlook

GOVERNANCE

“Transparency in ESG governance builds trust and drives responsible investment for a sustainable world.”

Cary Wood, Grede CEO



GOVERNANCE: The impact of our activities impact sustainability and ethical performance

Board composition: We understand a diverse range of perspectives and backgrounds in our board composition and independence is essential for effective decision-making and responsible governance. We aim to govern our company in a manner that is accountable, transparent, and aligned with sustainable practices.

Ethics & Compliance: We insist that our business operates with integrity and responsibility. As we regularly assess our policies and practices related to ethical behavior, compliance, transparency, and accountability, our aim is to maintain a strong reputation for responsible corporate governance and build trust and credibility with our stakeholders.

Human Rights: We are committed to respecting basic human rights with practices that uphold human rights both within our own operations and throughout our supply chain. We regularly evaluate our labor practices to ensure that we provide our employees with fair treatment, safe and healthy working conditions, and a healthy work-life balance that meet or exceed industry standards.

Risk Assessment & Management: We recognize the importance of Risk Management in promoting long-term sustainability and ethical performance. We prioritize the regular assessment of our risk management practices to identify, assess, and mitigate risks related to our operations, including environmental, social, and governance risks.

Data Security: We believe that ESG data security adds significant value by ensuring the protection and confidentiality of sensitive information, safeguarding against data breaches, and promoting trust and credibility among stakeholders. We regularly perform system testing and validation for our data and require comprehensive data system security training for our employees.



ESG Governance

Governance plays a pivotal role in our sustainability efforts. It acts as our guiding force, determining our strategic direction, setting the tone for our sustainability policies, and holding us accountable for meeting our sustainability objectives.

Through active stakeholder engagement and robust risk management, our governance framework helps us build trust, mitigate ESG risks, and navigate the complexities of sustainability.

As a company deeply committed to sustainability, we understand that governance is not just a procedural necessity but a driving force behind our journey to a more responsible and sustainable future.

It shapes our decisions, influences our actions, and enables us to align our business goals with the broader imperative of addressing global sustainability challenges.



Governance Structure

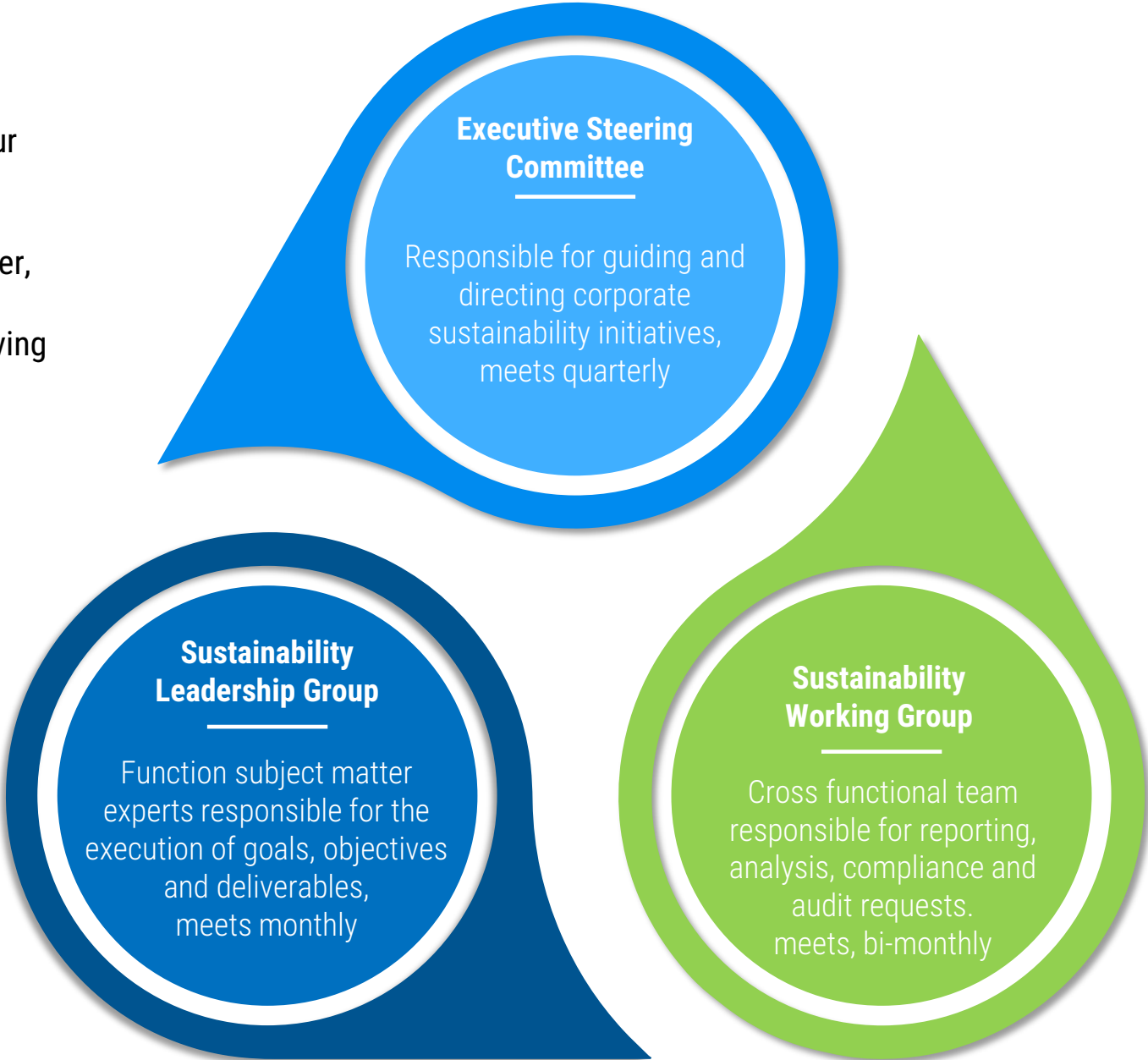
Responsible corporate governance, underpinned by a companywide dedication to integrity, honesty, and transparency, forms the core of our success. Our Board of Directors and management team champion accountability, not only in overseeing our organizational structure and operations but also in supervising our sustainability initiatives. Together, we consistently uphold the highest ethical standards and continuously enhance our processes and programs to effectively address ever-evolving challenges, regulations, best practices, and sustainability objectives.

Board of Directors

Grede's Board of Directors consists of six highly accomplished, diverse individuals recognized for their professional success and ethical leadership. We have established three essential committees: the Audit Committee, which ensures financial transparency and integrity; the Compensation Committee, responsible for managing executive performance and incentives; and the Executive Committee, providing focused oversight and decision-making authority.

Sustainability Governance

Sustainability initiatives are overseen by three distinct leadership and oversight groups within our organization. The first is the Executive Steering Committee, composed of key executives, including the Chief Executive Officer, Chief Financial Officer, Chief Technology Officer, Chief Administration Officer, Chief Operations Officer, President-Commercial, and Group Vice President. The second group is the Leadership Group, consisting of a diverse range of cross-functional experts. The third group is the Working Group, comprising subject matter experts from various functions. Together, these groups ensure sustainability efforts are effectively managed and executed across our organization.



Grede Code of Business Conduct and Ethics



At Grede, we regard every member of our team as representatives of our company. The actions of every employee, officer, and director affect the reputation and integrity of the Company. They bear the crucial responsibility of preserving our standing for excellence, professionalism, corporate responsibility, ethical behavior, and proper conduct. Ethical behavior forms the very foundation of our business philosophy.

Our commitment to upholding the highest standards of integrity is unwavering. We rely on our Code of Business Conduct and Ethics as the guiding compass that directs our daily choices and actions. It serves as a guiding framework to navigate the complexities of a global market while remaining steadfast in our commitment to social responsibility.

To ensure alignment with our ethical standards, we require all employees of our organization to complete Code of Business Conduct and Ethics training annually. This commitment to training underscores our dedication to upholding ethical principles throughout our company.

Topics and Policies outlined in our Code of Business Conduct and Ethics:

- Whistleblower Policy
- Policy Against Retaliation
- Human Rights
 - Respect for Human Rights
 - Diversity & Inclusion
 - Maintaining A Safe, Healthy and Affirmative Workplace
 - Anti-Human Trafficking and Child Labor
 - Employee Classification and Work Hours
 - Wages & Benefits
 - Freedom of Association and Collective Bargaining
- Anti Trust and Compliance
 - Anti Corruption
 - Compliance with Laws, Rules, & Regulations
 - Conflicts of Interest
 - Memberships on Boards and Committees
 - Political and Other Outside Activities
 - Trade Practices
 - Fair Dealing
 - Anti Trust Compliance
 - Bribery and Other Corrupt Practices
 - International Business Dealings
 - Insider Trading and Fair Disclosure
 - Political Contributions and Activities
 - Subpoenas and Government Investigations
 - Accounting Practices, Books & Records and Record Retention
 - Raising Questions and Concerns
- Protection and Proper Use of Company Assets
 - Theft/Misuse of Company Assets
 - Confidential Information/Privacy
 - Network Use, Integrity & Security
 - Company Travel and Business-Related Expenses
- Inquiries from the Media and Public
- Management Rights
- Violations of this Code

Human Rights and Ethics

This policies demonstrate our dedication to conducting its business ethically, in a manner that respects the dignity and rights of all individuals, both within and outside the organization. We believe that by adhering to these principles, we can build a more just, ethical, and sustainable future for our employees, partners, and the communities we serve.



Human Rights Policy Statement

Respect for human rights is a fundamental value that Grede deeply upholds. Our commitment includes honoring the worth and dignity of all employees, fostering their full potential, and ensuring equal opportunities, in line with universal principles. Grede is an equal opportunity employer, and recruits, hires, trains, promotes, compensates, and administers all personnel actions without discrimination based on any legally protected status.

At Grede, every employee is accountable for maintaining a work environment that champions human rights devoid of discrimination and harassment. If an employee believes that someone is violating the Human Rights policy and/or the law, they are required to report this behavior directly to management, Grede's Corporate Human Resources Department or Grede's Ethics Hotline which is operated by an independent third party,

Grede will not tolerate any retaliation of any kind directed against anyone who reports an issue concerning compliance with this Policy.



Anti-Human Trafficking and Child Labor Policy Statement

The Company and the United States Government prohibit trafficking in persons.

Grede strictly prohibits all forms of forced labor, including modern slavery, human trafficking, and child labor. Grede is committed to upholding children's rights in accordance with the International Labor Organization. We forbid the hiring of individuals under 18 years of age for positions that involve hazardous work, unless otherwise remaining compliant with local, state and federal laws.

The Company's employees, subsidiaries, contractors, subcontractors, vendors, suppliers, partners and others through whom the Company conducts business must avoid complicity in any practice that constitutes trafficking in persons or slavery.



Anti-Corruption Policy Statement

At Grede, bribery and other corrupt practices are strictly prohibited. We will not seek to influence others, either directly or indirectly, by offering, paying, or receiving bribes or kickbacks, or by any other means that are considered unethical, illegal, or harmful to our reputation of honesty and integrity. Employees and representatives of the company are expected to decline any opportunity that could compromise our ethical principles and reputation.

Grede's employees must not directly or indirectly offer, authorize, request, give or receive anything of value from any person or organization to obtain or retain business or influence a decision or action.

If a Grede Employee is asked for or offered a bribe or improper payment, they must:

- 1) Refuse to make or accept the payment and explain that Grede does not and will not pay or accept bribes.
- 2) Clearly state that their refusal is non-negotiable.
- 3) Immediately report the request to both Management and Grede's Corporate HR Department

Whistleblower Policy

Grede's commitment to transparency, integrity, and accountability extends to every aspect of our operations, including our whistleblower policy. We believe that our employees and stakeholders play a vital role in upholding our values and ensuring our ethical standards are maintained.

Our whistleblower policy reflects our unwavering dedication to ethical conduct and compliance with all applicable laws and regulations. We encourage open communication and the reporting of any concerns related to unethical behavior, fraud, or violations of company policies.

OUR POLICY AGAINST RETALIATION

It is the Company's policy to protect those who communicate honest concerns from any retaliation for such reporting. Consistent with the Company's policy and applicable law, no adverse employment action may be taken, and retaliation is not permitted directly or indirectly against anyone who in good faith reports a concern or provides assistance or information to the General Counsel, others in management, the Audit Committee or any other appropriate person or group, including any governmental, regulatory or law enforcement body investigating or otherwise helping to resolve any concern. An employee who retaliates against someone who has reported a concern in good faith is subject to discipline up to and including termination of employment. Confidential and anonymous mechanisms for reporting concerns are available and are described in this Code and the Company's Whistleblower Policy, including the Hotline.

WHISTLEBLOWER PROCESS

WHO DO I CONTACT FOR GUIDANCE OR TO REPORT CONCERNS?

If you believe a situation may involve or lead to a violation of this Code, please seek guidance and report such concerns in accordance with this Code and the Company's Whistleblower Policy.

Seek guidance from a responsible supervisor (for example, your immediate supervisor, a department head or location manager) or other appropriate internal authority (for example, your local Human Resources representative or compliance officer).

Report Concerns to a Supervisor, Manager or Your Human Resources Representative. The most direct way to raise any concern is to speak to a supervisor, manager or your Human Resources representative. They, in turn, will communicate the concern with the Ethics Committee for review as described below.

Use the Hotline. Reports may also be made anonymously through the Company's Hotline which is posted in each Company location or through the following company mailbox: Compliance@grede.com.

Report Concerns to the Corporate Human Resources or Ethics Committee.

Accounting or Audit Concerns. In addition, reports related to accounting or auditing concerns may be made in writing to the following company mailbox: Compliance@grede.com

HOTLINE: 1-844-977-0465

ONLINE: grede.ethicspoint.com

The Hotline is a special toll-free line available 24 hours a day, 365 days a year. It is intended to operate in addition to other resources available to you to voice complaints or concerns, such as supervisors and Human Resources staff. The Hotline is operated by an outside, independent service provider and is available in multiple languages.



Grede's ESG sustainability commitment is at the core of our business as we strive to mold a better tomorrow, today.

Risk Assessment

Grede prioritizes proactive risk identification and mitigation to ensure consistent operations, financial robustness, and sustained organizational growth. Our Risk Assessment offers insights into leadership governance and potential vulnerabilities that could challenge our company's stability. By staying ahead, we aim to avoid unexpected disruptions to our operations, profit margins, and overarching organizational health.

Key components of our business continuity strategy include:

- Financial agility to navigate and adapt to diverse challenges.
- Comprehensive business continuity and revival strategies for rapid recovery post disruptions.
- Execution of a broad ranging insurance portfolio.
- Collaboration with insurers to implement risk improvement plans to safeguard company assets
- Modeling of liquidity scenarios and develop action plans as required



Data Security & Privacy Management



DATA SECURITY

At Grede, we understand that data privacy and security are essential components of our ESG sustainability efforts. We have made a firm commitment to safeguarding the personal and confidential information of our customers, employees, and stakeholders.

We achieve this by implementing rigorous data privacy and security policies and procedures that meet or exceed industry standards. Our systems undergo regular reviews and updates to ensure maximum protection, and our employees receive ongoing training and education.

By prioritizing data privacy and security, we aim to cultivate trust with our stakeholders, reduce potential risks and threats, and demonstrate our dedication to responsible and ethical business practices. Our focus on data privacy and security aligns with our broader mission to promote sustainability and well-being and we are proud to uphold these values in all aspects of our operations.

Data Security – Key Components

Risk Assessment: Conduct regular assessments to identify potential risks and vulnerabilities related to the security and privacy of data to proactively address any potential threats and mitigate risks.

Security Measures: Enforce a range of security measures, including encryption, access controls, firewalls, and intrusion detection systems, to safeguard data against unauthorized access, disclosure, or alteration.

Privacy Policies and Procedures: Clear privacy policies and procedures are in place that outline how data is collected, used, stored, and shared. These policies ensure compliance with applicable data protection regulations and foster transparency in our data handling practices.

Employee Training and Awareness: Provide comprehensive training on data security best practices, privacy principles, and their roles and responsibilities in safeguarding data.

Incident Response and Reporting: Enforce incident response plan to handle any security incidents or data breaches promptly and effectively. This includes incident detection, response, containment, recovery, and reporting procedures to minimize the impact or risk.

Continuous Monitoring and Improvement: Regularly monitoring and reviewing the effectiveness of our data security and privacy controls, making necessary adjustments improving our program based on emerging threats, industry best practices, and regulatory requirements.

FRAMEWORK

“Integrating a sustainability framework into every aspect of our business creates long-term value for stakeholders and a more sustainable future for all”.

Cary Wood, Grede CEO

The letters 'ESG' are rendered in a bold, green, sans-serif font. They are superimposed on a semi-transparent white pentagonal shape that covers a portion of a modern building's glass facade. The background of the entire slide is a collage of green-tinted images, including a dense forest, a modern glass skyscraper, and various icons representing sustainability and business operations.

Reporting Framework & Materiality

Grede's objective is to shape its sustainability strategy and reporting by pinpointing the Environmental, Social, and Governance (ESG) matters that carry substantial implications for both the company's risks and opportunities.

The primary objective behind Grede's identification of material ESG areas is to steer the company's efforts toward the domains where they can make the most substantial impact. This approach yields benefits for both Grede and its stakeholders by enabling them to concentrate their resources and attention on addressing ESG issues that are the most pertinent and significant.

In the process of determining material ESG areas, Grede employs a variety of approaches:

External Frameworks: Grede makes use of recognized external sustainability frameworks, including the Sustainability Accounting Standards Board (SASB), which offers industry-specific standards for reporting on sustainability issues, and the Global Reporting Initiative (GRI), whose universal standards aid in identifying material topics and fundamental principles.

ACA Global: Grede conducts bi-annual audits and reporting through ACA Group (ACA), a prominent authority in governance, risk, and compliance advisory services within the financial sector.

Sustainability Steering Committee: Grede convenes a Sustainability Steering Committee, which provides guidance and hosts meetings to assess and pinpoint ESG topics that hold particular relevance to their business.

Through these comprehensive approaches, Grede ensures its sustainability efforts are well-informed and directed toward addressing ESG concerns that have the greatest significance for the company's operations and stakeholders.



LOOKING FORWARD

"Advancing Sustainability, one step at a Time. We remain dedicated to making progress every day towards a more sustainable future for all."

Cary Wood, Grede CEO



Looking Forward

As we conclude this year's Sustainability Report, we reflect on the remarkable journey we've undertaken towards a more sustainable future. Our collective efforts have yielded tangible results that showcase our commitment to environmental responsibility and social well-being.

This report encapsulates our relentless pursuit of sustainable practices, showcasing the progress we've made while acknowledging the challenges that lie ahead. We firmly believe that sustainability is not just a trend but a fundamental responsibility, and we are resolute in our dedication to integrating it into every facet of our organization.

Looking forward, our vision is clear. We aim to set new benchmarks in sustainability, pushing the boundaries of innovation, and driving positive change across our industry. We will continue to reduce our carbon footprint, minimize waste, and promote ethical business practices. Our commitment to fostering diversity, equity, and inclusion will remain unwavering.

Furthermore, we recognize that collaboration is key to achieving our sustainability goals. We will actively seek partnerships with like-minded organizations, governments, and communities to address global challenges collectively. Together, we can create a sustainable future that benefits us all.

Cary Wood

Grede Holdings, Chief Executive Officer



Forward-Looking Statements

Forward-looking statements contained in this sustainability report are subject to various risks and uncertainties, including those identified in our periodic filings with regulatory authorities, which could cause actual results and achievements to differ materially from those expressed or implied in such statements.

The statements in this Sustainability Report may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may include information about sustainability goals and plans, expectations, and beliefs regarding future events and performance. These forward-looking statements are not guarantees of future events or performance, but are based on current expectations, estimates, and beliefs of management, which may prove to be inaccurate. These statements also involve known and unknown risks, uncertainties, and other important factors, many of which are beyond the control of the company, that could cause actual results to be materially different from those expressed in the forward-looking statements. The words "believe," "expect," "plan," "project," "intend," "anticipate," "estimate," "predict," "potential," "continue," "may," "will," "should," or the negative of these terms or similar expressions may indicate forward-looking statements in this report.

We do not undertake any obligation to update or revise forward-looking statements to reflect events or circumstances that arise after the date of this report, except as required by applicable law. The information contained in this report is provided for informational purposes only and is not intended to be used or relied upon as a basis for investment decisions or other purposes. Our actual sustainability performance may differ materially from our goals and targets, and we make no representation or warranty as to the achievability or reliability of such goals and targets.





GREDE

Casting Integrity