



TRIPLE BOTTOM LINE

2023

CELEBRATING 50 YEARS



CASCADE
engineering

family of companies

19th edition

Introduction

Cascade Engineering has pioneered sustainability and Triple Bottom Line thinking for the past 50 years. As we look forward as a Woman Owned business and B Corporation, we strive to build on this legacy. We will continue to champion sustainable business principles for positive social and environmental impact and lead the way towards a Circular Economy.

The linear thinking of take-make-waste is insufficient and not sustainable. As a durable good, large tonnage manufacturer, we continue to push the envelope in terms of using post-consumer waste and recycled materials throughout our product lines. We are also working with partners such as WM to dissect the waste-to-landfill stream and develop innovative new products such as our EcoCart™.

The past year has been a transformative journey for our company, marked by facility renovations, the incorporation of cutting-edge tools and presses, and a successful expansion of our product portfolio. These significant enhancements are a testament to our unwavering commitment to excellence and innovation. We are immensely grateful to every individual for their dedication and hard work to turn this year into an unforgettable chapter in our company’s history. Together, we have embraced change and elevated our capabilities to new heights, setting the stage for a promising future.

Throughout Cascade Engineering’s history, we have pioneered and innovated, pursued complex challenges, and exceeded expectations. We are focusing on what we do best: large tonnage injection molding and closing the loop on our feedstock through investments in advancing recycled material usage. Our success further reinforces our commitment to the Triple Bottom Line.

I am always humbled by the lives we have impacted in our organization and our community, and we will always seek ways to improve society and positively impact our environment through plastics engineering and manufacturing.

Sincerely,



Christina Keller,
CEO Cascade Engineering Family of Companies & Board Chair



OUR CULTURE

The Cascade Engineering Family of Companies is a family-owned business that is committed to creating an inclusive work environment in which every employee knows they are valued.

Our True North aspiration for our culture is being an Employer of Choice through world-class health and safety while maintaining a strong culture of engaged employees. We strive to attract and develop top talent while providing skills, leadership training and opportunities to grow from within. We provide resources and support for each employee and their families to remove barriers to their success.

As an anti-racism company, we are deicated to identifying and eliminating racism in our workplace. As a champion of diversity, we believe in the diversity of thoughts, ideas, beliefs, experiences, and the inclusion of people regardless of their race, color, sex, language, national origin, religion, orientation or age. By embracing the principles of diversity and inclusion, our culture is strengthened and our workplace is more dynamic.

As an organization, we thrive on collectively solving complex challenges that will improve our community, environment and financial prosperity.



BUSINESS PRINCIPLES

Vision and Values

Our vision is to be the highest value partner to our customers by shaping ideas in plastics. We operate under the Triple Bottom Line philosophy through empowering people to drive innovative solutions and excellence in manufacturing.

Customer Driven Innovation

We create customer intimacy by building competitive differentiation, rapid invention, and flawless launch.

Employer of Choice

We strive for the safest and healthiest workplace in the world. We provide learning and development opportunities, along with excellent benefits, to build a strong culture of engaged employees.

Organizational Excellence

Our ongoing efforts to establish an internal framework of standards and processes are intended to engage and motivate employees to deliver products and services that fulfill customer requirements within business expectations.



CHRISTINA KELLER:
Chief Executive Officer & Board Chair
Cascade Engineering Family of Companies

Christina’s aim is to ensure Cascade Engineering maintains a Triple Bottom Line philosophy. She was named Board Chair in 2023 and is the President of Noble Polymers, which is CE’s own custom compounder of plastic pellets. This business unit is a valued partner within the circular economy and sustainable plastics recycling space.

In 2023, Christina was announced as one of the “200 Most Powerful Business Leaders in West Michigan” by The Grand Rapids Business Journal.



GREG BYLSMA:
President

Greg brings extensive global manufacturing and operations experience to Cascade. His extensive multi-disciplinary background in finance, operations and strategic planning will help support our team as we refine growth strategies, emphasizing our Triple Bottom Line philosophy.



ERIC VAN NAMEN:
Chief Financial Officer

Eric Van Namen joined Cascade Engineering in August of 2022. He plays a critical role in developing and implementing the financial strategy for Cascade Engineering. Eric is key to the leadership of CE, providing assistance in evaluating strategic moves, mergers and acquisitions; growth strategies; and, developing financial plans, economic modeling, and risk analysis.



KENYATTA BRAME:
Executive Vice President, Chief Administrative Officer, Sustainability Officer & Board Secretary

Insightful, dedicated, and genuinely caring, Kenyatta Brame embodies the principles and values Cascade Engineering was built on. Kenyatta joined Cascade Engineering in 2006 and has been crucial in leading several of our Employer of Choice initiatives, including B Corp certification, Anti-Racism culture, and our Returning Citizens program.



STEVE BUSHONG:
Vice President of Operations

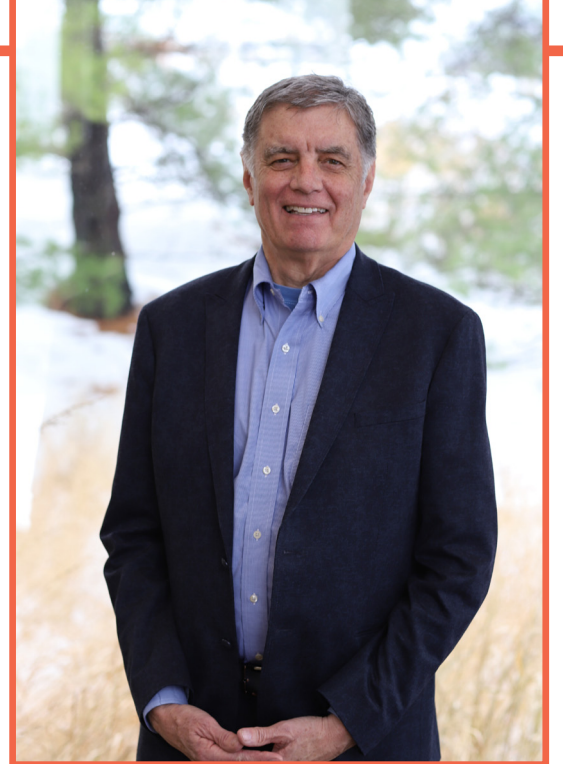
Steve provides strategic leadership across our multi-site operation in our progression towards manufacturing excellence and Industry 4.0. Steve was formerly the Vice President of North American Operations at Yanfeng Automotive Interiors in Holland, MI, which acquired the Prince Corporation.

FRED KELLER:
Founder & Chair Emeritus
Cascade Engineering Family of Companies

Fred founded Cascade Engineering in 1973. He believes that business has the unique opportunity to complement its efforts on financial performance with important work in the social and environmental arenas. Business and industry publications regularly feature his innovative management approach and work in advancing sustainability.

Fred is an accomplished public speaker frequently asked to talk about the Triple Bottom Line culture he has instilled at Cascade Engineering, including the “Welfare to Career” and “Returning Citizens” programs. These programs have provided career opportunities for hundreds of employees formerly on welfare, or a second chance to those formerly incarcerated. His TEDx speech “Why Business, Why Now”, has been a common theme in many of his public speaking engagements.

Fred believes that the power of collective business is a force capable of solving the world’s toughest problems.



BILL MANNS:
Sustainability Director

Bill Manns is the President and CEO of Bronson Healthcare, an innovative, award-winning organization that partners with patients and families to achieve an exceptional care experience. He has a bachelor’s degree in Organizational Psychology and a master’s degree in Health Services Administration. In addition to his healthcare-specific background, he is experienced in LEAN and Six Sigma.



BRIAN WALKER:
Board Member

Experienced chief executive officer with a demonstrated history of working in the furniture industry. Formerly the CEO of Herman Miller, Brian Walker is a Partner of Strategic Leadership with Huron Capital. He is a hands-on resource providing the business insights and strategic direction to portfolio company management teams necessary to create value in the private equity environment.



DR. LORISSA MACALLISTER:
Board Member

Dr. Lorissa MacAllister is a researcher and architect who is blending her experience and expertise in healthcare to pioneer a unique approach to design in the healthcare industry and beyond. As the Founder and President of Enviah, she leads the consulting firm to create fully integrated environments with the organizations’ people, technology, and systems.



LEADERSHIP

BOARD OF DIRECTORS

New Logo!

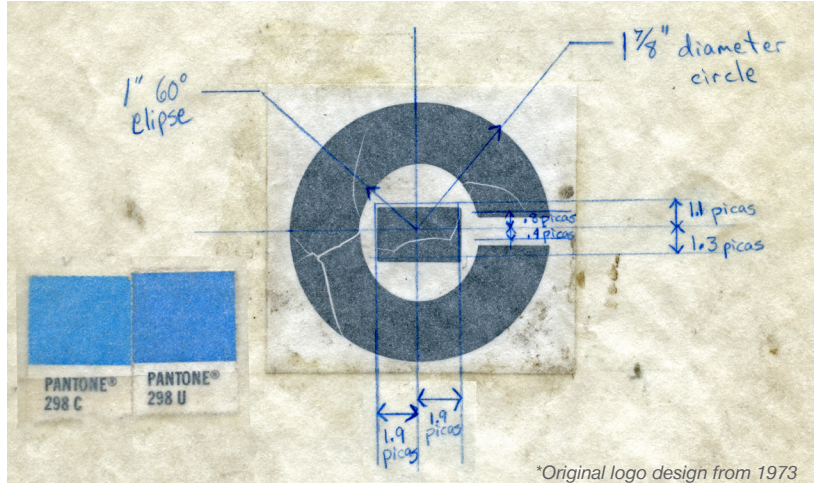
Honoring our Past, Embracing our Future

Cascade Engineering began in 1973 as a division of Paragon Die and Engineering led by Fred P. Keller. In 1978, Cascade won its first automotive contract producing air-conditioning ducts for Oldsmobile. In 1980, we obtained our first acoustical barrier contract with General Motors. From there, Cascade Engineering gained further momentum in the automotive industry. In 1989, we expanded into the trash and recycling industry, producing plastic waste containers with environmentally conscious plastics.

Cascade Engineering grew from the vision and passion of Fred Keller. He believed in people and realized they were the key to his organization’s success. Creating a company that truly valued its people, led to a culture where employees felt ownership and pride in the organization.

In 2004, Cascade Engineering implemented a new swoosh-type logo that revealed the CE strength utilizing modern branding with a tagline “Shaping Ideas in Plastics.” The page had turned to an organization that was moving forward, embracing the Triple Bottom Line philosophy of People, Planet, Profit.

Through the years Cascade built facilities, joint ventures, and obtained new business that would not only show the growth of the organization, but would also reflect upon the dedication of our workforce. As a Family Owned Business, it was important to Fred Keller that each employee knew they were valued and part of the Cascade Engineering family.



In 2023, we began our 50th year of business. Christina Keller became the Chief Executive Officer of Cascade Engineering Family of Companies, and like her father, believes in the Triple Bottom Line philosophy and its impact on the organization not only from a people perspective, but also in regards to the profit and planet aspects as well.

As we celebrate our 50th year of business, taking the time to honor our past and embrace our future was important to the Executive Leadership of Cascade Engineering. We made a choice to reintroduce our original logo that started our organization 50 year ago – a simple logo that is bold and reflects the unwavering commitment to the core values of Cascade Engineering.

Campus-Wide Facility Renovations

Facility Renovations
The comprehensive campus-wide renovations have yielded significant improvements in our day-to-day operations while breathing new life into our facilities. The revitalization efforts have not only enhanced the aesthetic appeal of our campus but have also translated into more efficient operations.

Furthermore, the change in signage to accommodate our new logo has been more than just a visual update. It reflects our commitment to modernizing and aligning all aspects of our identity. This re-branding effort, along with the upgraded signage, enhances our brand consistency and helps communicate a unified image to our campus, community, and visitors.

In essence, these renovations signify our dedication to progress, both functionally and visually. The result is an environment that fosters efficiency, promotes positivity, and communicates a cohesive and modern brand identity. Our commitment to enhancing our facilities remains steadfast, as we recognize that there is always potential for improvement as we grow into the future.

Ron Jimmerson Plant and Training Center
One of the most significant changes was renaming our “33rd Street Plant” to the “Ron Jimmerson Plant and Training Center”. This name change honors Ron Jimmerson, who retired from Cascade Engineering in November of 2009 after 23 years of service. He started his career in 1988 as an operator and eventually was promoted to a Human Resource Manager. Ron was a key leader in our Welfare to Career and Returning Citizens initiatives.

Following Ron’s retirement, he founded Seeds of Promise, a non-profit that is dedicated to community driven improvement such as public safety, housing, education, and health and wellness.



PEOPLE

We believe that when our people thrive, our business thrives, and so does our community. With that mentality, we have adopted pioneering programs rooted in the appreciation of all people, regardless of age, race, or background with the intent that every employee knows they are valued.



50th Year Celebration

The company picnic proved to be the perfect platform to commemorate our remarkable 50-year journey. This celebratory event allowed us to reflect on the challenges and triumphs of the past five decades while looking forward to the future with renewed enthusiasm. After a three year hiatus due to the pandemic, Cascade Engineering reinstated the cherished tradition of the annual summer picnic in June at the John Ball Zoo.

Founder Fred Keller shared his reflections on 50 years in business:

- Starting out with our first automotive contract in 1978; the building of the Buursma plant and start of the production of carts in 1989; the beginning of joint-ventured global entities like StarCade (1988), Cascade Engineering Europe (1991), Systex Products Corporation (1993), and Decade Products (1999);
- Highlighting the barrier breaking initiatives at Cascade Engineering starting with Welfare to Career (1999) and moving forward to Anti-Racism Awareness and Return Citizens; and,
- Wrapping up with the community impact and various recognitions Cascade Engineering has received through the years such as Labor Investing for Tomorrow Award (1992), Literacy Partnership Award (1992), Chrysler Role Model Award for Technology (1997), Ron Brown Award for Corporate Leadership (1998), Plastic Processor of the Year (2001), National Governor's Association Award (2004), Environmental Stewardship Award (2005), Diversity Visionary Award (2007), Clean Corporate Citizen Longevity Award (2008), awarded Michigan Manufacturer of the Year Award Special Achievement for Global Humanitarian Efforts (2011), Celebration of Innovation Award (2013), Haworth Innovation Award (2016), Whitney M. Young Service Award (2017), Pillar of Excellence Award for Empowering Women at Work (2018), and the EcoCart ISRI Design for Recycling Award (2021).

The employees and their extended families immersed themselves in a diverse array of activities. From glitter tattoos, face painting, and yard games, to snow cones and a delicious backyard BBQ. However, the undeniable highlight was the iconic dunk tank, where six of our esteemed leaders courageously embraced the hot seat. With a gleam of mischief and determination, employees and their families took aim, plunging these leaders into the tank one splash at a time.

Speeches were given from Fred Keller, Christina Keller and Greg Bylsma, before we raffled off dozens of prizes including family excursions, toys for employees' children and grandchildren, outdoor gear to make the most of the summer, and an extra week of vacation time. Following these shared activities, everyone was able to enjoy the afternoon at the zoo.

It was a heartwarming occasion that brought us all together again, celebrating the summer spirit and our resilience as a team. Laughter filled the air as colleagues reconnected, families mingled, and the joy of camaraderie rekindled after a prolonged separation. This unforgettable day served as a testament to our unity over the past 50 years and marked the beginning of new memories.



Together Again!

After a period of virtual interactions that were necessitated by the pandemic, the return to face-to-face gatherings has rejuvenated our sense of connection and collaboration. The authenticity of in-person conversations, spontaneity of discussions, and the subtle cues of body language have all contributed to a richer and more dynamic exchange of ideas.

FY23 was a huge ramp up in attendance of live events. This proved invaluable being able to share news, stories and laughter as we took on new projects together.

The events kicked off at our Winter Town Hall in December and continued through 2023 with the Office of the President Awards (OTP) in March, Young Professionals of Color Conference (YPCC) in May, and the Summer Town Hall and Company Picnic in June.

This transition has reminded us of the power of human interaction and the value of the “in-person” touch that technology, no matter how advanced, can never fully replicate. It has not only reinvigorated our work culture but reinforced the significance of fostering personal connections amidst our professional endeavors.



Office of the President Awards

The recently renovated Jimmerson Plant was a perfect location for the Office of the President (OTP) Awards Ceremony. This annual event highlights individuals who have met milestone years of service and those who excelled in a variety of categories including; Commitment, Diversity, Environment, Wellness, Innovation, Leadership, Continuous Improvement, Operations, Quality, Safety, Technology and Sales/Marketing. These awards are all selected from employee nominations.



Keller Cup

The Keller Cup goes to an individual with the most remarkable sales. Brian Miller, Senior Accounts Manager/ Sales Manager for Cascade Carts Solutions, received the 2023 Keller Cup.



Chair Award

The Chair Award is given out to an employee who went above and beyond, demonstrating the multiple categories listed above. The 2023 recipient was Shenita Ellis, Front Line Leader at our West Plant.



Employee Spotlights

Stephanie Schoenherr

Stephanie Schoenherr joined Cascade Engineering as a Human Resources Manager and was promoted to Director of Human Resources in 2023. Stephanie brings to Cascade 15 years of experience in operations management and director level leadership in Human Resources.

“Stephanie is the right person at the right time for this important leadership position,” said Kenyatta Brame, “her energy and expertise are what we need to make sure we are successful. I am confident that she will lead our Human Resources efforts to new heights.”

“I truly believe that Cascade Engineering is the land of opportunities! And the best part is that we have an incredible foundation already in place and ready to build upon. I am looking forward to working with the team to refocus on our Triple Bottom Line and to build upon the initiatives that have earned Cascade Engineering such an amazing reputation in this community. There’s a lot of work to be done, but I can feel the energy and readiness from our team, and I am ready to roll up my sleeves and get to work!” Said, Stephanie Schoenherr.



Ron Hoppa

Ronald ‘Ron’ Hoppa, Jr. was promoted to Plant Manager for Cascade’s Buursma and Ron Jimmerson Plants. Ron joined Cascade Engineering as a Machine Operator at the North Plant in 1997. He worked his way through the Pay For Contribution (PFC) program and progressively advanced his career through multiple positions and departments. Throughout his tenure at Cascade, Ron has led by example, encouraging employees to be their best and challenging them to not only meet the goals of Cascade but shatter them.

Ron and the teams he leads have shown continued growth in the number of carts Cascade Engineering is able to produce for our Cascade Cart Solutions (CCS) business unit. Record-breaking goals for production have been set, and the CCS Team not only meet and exceed these goals under Ron’s leadership, they do it while producing a quality product that will last. Leading multiple plants is not new for Ron, and he is looking forward to the opportunity to bring our cart production to the next level. Ron said, “It just makes sense for me to be leading that team; I feel I can have an impact on streamlining our cart-making process, and I am looking forward to the challenge.” With dedicated production lines, and Ron’s commitment to continuous improvement within our Buursma and Jimmerson Plants, Cascade Engineering will rise to meet the growing sales opportunities provided by the CCS sales team.

Ron has proven he is a valued and respected leader by our employees, and we are fortunate to have him as part of Cascade Engineering. We look forward to Ron’s continued success, and the future production records that will be made through his leadership.

Brian Miller & Landon Hutchison

Cascade Cart Solutions (CCS) is taking a new approach to leadership development within their Sales team. Looking to the future, Scott Downer and the team have added leadership responsibilities to two Regional Sales Managers, Brian Miller and Landon Hutchison, to develop the next generation of leadership. Brian Miller now has additional responsibility leading the Sales team. Landon Hutchison now leads the Field Services Group.

Brian Miller (left) joined the Cascade Engineering Family of Companies in 2001 as part the engineering group before transitioning to sales. In the last few years, Brian has been a top performer on the sales team at CCS and was recently awarded the 2023 Keller Cup for being the top salesperson in the organization at Cascade’s Annual Office of the President Awards event. From engineering to sales, Brian provides insight into sales strategy and the production, vision, and launch of the products produced by CCS.

Landon Hutchison (right) joined the Cascade Engineering Family of Companies in 2017 as a regional sales manager. Landon has been influential not only in sales but also with his operations background, which provides an opportunity for CCS to enhance and grow its Field Services Group.

“Brian Miller and Landon Hutchison have the skills, talent, and drive to bring CCS to the next level within its Sales and Services Groups,” stated Scott Downer, Director of Sales.



DCC in 2023

Diversity Coordinating Council

Cascade Engineering’s Diversity Coordinating Council (DCC) was created to ensure a work environment in which every employee in the organization knows they are respected and valued. The mission of this Council is to develop a culture of inclusion by increasing awareness of the sensitivity of individual differences and actively work to counteract the negative impacts of racism.

Over the years, the DCC has proactively developed and implemented systems, programs, and procedures that aim to increase the representation of minorities and women in our workforce.

Throughout the year, the DCC met each month in varying locations and times to encourage all employees to participate. Topics discussed at each meeting were displayed on company-wide monitors and our intranet. This promotes open communication within the organization and provides reminders for employees to join the next meeting and engage in monthly challenges related to each topic that provide insight into various areas promoting Diversity, Equity, and Inclusion.

ERGs

Employee Resource Groups

Cascade Engineering had a resurgence of interest in implementing Employee Resource Groups in 2023. The DCC launched Women@CE in April of 2023. The mission of this ERG is to build, empower, and uplift the women within Cascade Engineering Family of Companies.

The reintroduction of ERGs provides an opportunity to educate and support our employees within Cascade Engineering in specific categories of identity and experience. Through dialogue and engagement, the ERGs aim to foster a culture of diversity, inclusion, and equity. Membership in ERGs is open to all employees regardless of identity or experience.

Cascade is proactively educating our workforce about the importance of ERGs and their role in enhancing the company’s diversity and inclusion efforts. Cascade evaluates ERG activities to ensure they align with the company’s values of inclusivity and equity.

Overall, the success of ERGs hinges on our ability to bring people together while maintaining an open and welcoming atmosphere for all employees, by promoting unity, understanding, and mutual respect. We look forward to starting our next ERG!

Retention Team

Employee Engagement

The staffing challenges experienced by many employers in Western Michigan during the pandemic taught us the importance of staying focused on employee retention.

Early in 2023, we established a Retention Team to evaluate the retention and turnover of our employees, the onboarding and training of new employees, and our goal of being an Employer of Choice in Western Michigan. Having a retention team that supports both new and tenured employees is a strategic approach that yields numerous benefits for the organization.

Having a dedicated team focused on new employees enhances our onboarding process. This leads to faster integration into the company culture, quicker understanding of job expectations, and reduced chances of early turnover. It fosters a positive initial experience that sets the tone for long-term commitment.

A retention team can also identify areas where new employees may need additional training or support. By addressing skill gaps early on, employees become more confident and effective in their roles, contributing to job satisfaction and engagement.

Providing a feedback loop for tenured employees shows that the organization values their contributions. This ongoing engagement prevents feelings of stagnation and opportunities for re-engagement. When employees feel heard and valued, they are more likely to remain loyal to the company.

In essence, a retention team that focuses on both new and tenured employees contributes to a holistic and effective employee experience. This approach not only retains valuable talent but also supports their growth and development, ultimately benefiting the organization as a whole.

GVSU Partnership

Laker Accelerated Talent Link

In February 2023, Grand Valley State University launched a work-and-learning program with five inaugural West Michigan-based corporate partners designed to accelerate the connection between talent and employers. The partners invest in GVSU students who become employees during college and after graduation.

The Laker Accelerated Talent Link program pairs Grand Valley students with partner companies that provide an enhanced co-op experience for students. Five employers have joined the partnership: Cascade Engineering, Acrisure, Amway, Corewell Health and Michigan Software Labs. GVSU also serves as an employer partner.

“As Cascade Engineering celebrates 50 years as a business in West Michigan, we are exhilarated by the opportunity to work with and source talent from Grand Valley through this initiative. We’ve been invested in community from day one and view this as a means of emphasizing our Triple Bottom Line and our commitment to Grand Rapids,” said Kenyatta Brame, Executive Vice President of Cascade Engineering.

PLANET

There's only one earth, so we intentionally strive to reduce our impact on it. We work hard to build a sustainable organization and are committed to continuously reducing waste emissions into the air, land, and water.



Evolution Cart Series

Evolved to Reach New Heights

The very first concept of what would become the Evolution Series Cart was created in 2019 with the primary goal of increasing truckload capacity of our standard 96 Gallon cart. Due to uncertainty and challenges posed by the COVID-19 pandemic, the project kickoff took place in April of 2021 and the Evolution Series Cart officially launched in 2023.

Beyond increasing truckload capacity, our engineers needed to make sure the new design would maintain the same stability and durability with a completely new body and lid design. The new design of the Evolution Series Cart allows 13 carts per stack rather than 10 carts per stack that we achieved with the Icon and Sterling Series. Not only does this increase the number of carts per truck by over 40%, but this allows us to optimize warehouse space and the space needed for successful set-outs in neighborhoods across the United States.

As an added bonus, this new truckload capacity significantly reduces freight costs to our customers. Through reducing the number of trucks on the road, the Evolution Series Cart aligns with Cascade's environmental efforts in reducing our overall carbon footprint.

For every 3 truck loads of icon or sterling carts, you only need 2 truck loads of the evolution carts.

Example:

100,000 carts are heading from Grand Rapids, MI to Tampa, FL
A distance of approximately 1,250 miles

This would take,
*173 Icon or Sterling truckloads, or
121 Evolution truckloads*

Using Evolution saves 52 truckloads

The average truckload emits 161.8g CO2 per mile

For 100,000 carts heading to Tampa, FL, there is a reduction of 10.5 metric tons of CO2 emission by switching to the Evolution.

That's enough CO2 to fill a sphere with a 336ft diameter,
almost the length of a football field.



First rollout in Fredericksburg, Virginia

Dash Mats

Ideal Application for Carbon Neutral Materials

Cascade Engineering introduced its research and written paper “Automotive OEM Barrier Acoustical Performance – The Ideal Application for Carbon Neutral Materials” at the 2023 Society of Automotive Engineers – Noise, Vibration & Harshness (NVH) Conference at DeVos Place. Ryan Cleaver, contributor to the research and writing of this paper, presented the information to the conference attendees.

The Conference’s technical sessions covered all materials used to solve noise, vibration & harshness problems in vehicles. Topics covered included new and traditional NVH materials, materials with unique or special NVH properties, case studies covering applications of NVH materials to solve specific vehicle problems, modeling of materials, manufacturing, or processing of NVH materials, and engineering and design principles for the use of NVH materials. Cascade Engineering’s paper, presented by Ryan Cleaver, tackled the challenges surrounding domestic OEM commitments to producing vehicles that are fully carbon neutral. There were approximately 100 industry engineers, scientists, and technical experts attending this conference in May of 2023.

The automotive acoustics arena is rich with application opportunities for carbon neutral or climate positive parts. The design of potential “green” NVH solutions however cannot compromise the intended acoustical performance of the vehicles. This paper investigates the acoustical needs of OEM vehicles with an emphasis to apply green solutions. The acoustic solutions proposal in this paper compares and contrasts barrier densities and sealing characteristics between traditional and carbon neutral acoustical barriers. It also compares important material properties.

Furthermore, these comparisons demonstrate that vehicular acoustic performance need not be compromised as the industry moves towards more climate friendly initiatives. Lastly, the paper identifies an ideal application for planet friendly, carbon neutral NVH solutions. This is accomplished by using acoustical barrier applications that are production ready and commercially available today. None of these carbon neutral NVH solutions alter the anticipated acoustical performance of the target vehicle in a negative manner.

The technical paper, researched and written by Cascade Engineering employees, Ryan Cleaver, Andrew Skestone, and Rich Brouckaert and presented by Ryan Cleaver was received extremely well.

The technical paper is now published and available for purchase on the SAE/NVH website.



Campus-Wide Improvements

Environmental Impact

Cascade Engineering has made many investments in being a more efficient and sustainable manufacturer here in Grand Rapids, Michigan. We have optimized our operational footprint so that we can grow profitably and efficiently.

We have consolidated our manufacturing facilities by reducing two locations, which has yielded significant environmental and operational benefits. The streamlined operations have resulted in reduced utilities consumption, including energy and water, leading to both cost savings and a more responsible ecological footprint. The reduction of 2.8 million Kilowatt hours per year increased our Sales to Kilowatt hours from \$4.26 to \$4.57.

Additionally, the consolidation has contributed to a notable decrease of 2,630 metric tons in CO2 emissions, aligning with our commitment to sustainability and environmental responsibility. That's comparable to a consumption of over 6,000 barrels of oil, or almost 300,000 gallons of gasoline.

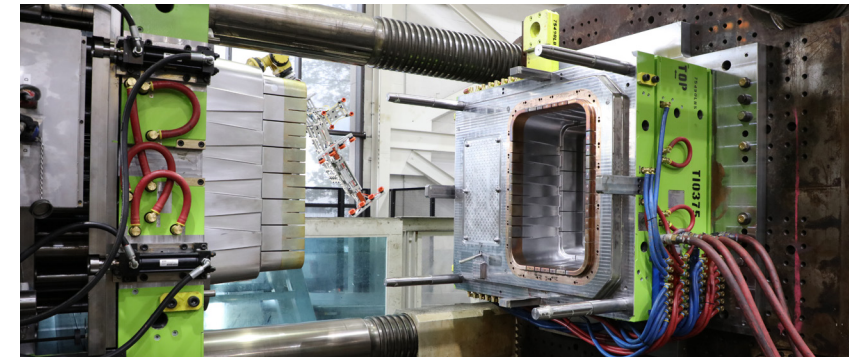
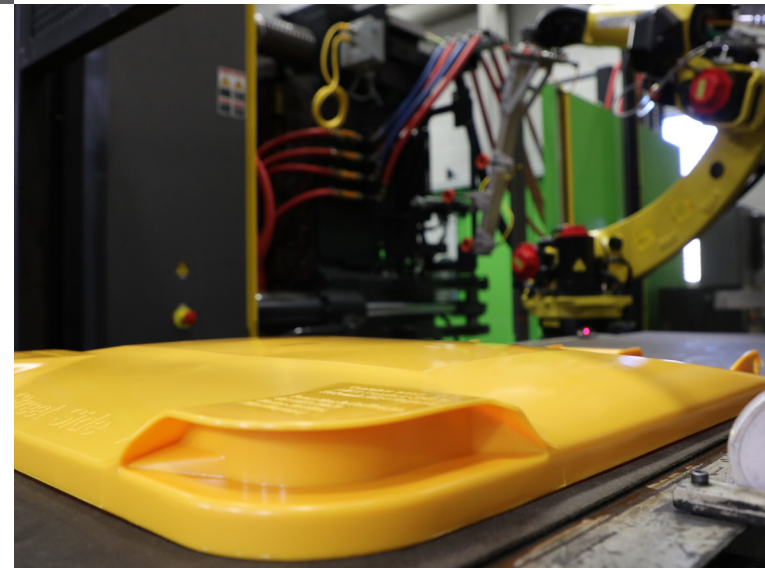
The smaller footprint not only enhances operational efficiency but also reflects our dedication to minimizing our environmental impact, showcasing a strategic and responsible approach to manufacturing.

We will continue to invest in our facilities and equipment to support operational and environmental improvement.



PROFIT

With our Triple Bottom Line model, generating positive returns benefits all stakeholders, not only the shareholders. Through profitable manufacturing, we are able to invest more deeply in our People and the Planet. Our profitability is the key to making a difference in the world.



Automotive Americas

Frunk Assembly Line

Cascade Engineering specializes in large tonnage plastic injection molding. Our newest product line is a “frunk”, which is the front trunk that is placed inside electric vehicles. The launch of the Frunk Assembly Line was an exceptionally rewarding experience. It took hard work and the support of many departments to design, install, operate, and maintain this assembly line.

Our first trial run of frunk was produced for the Ford F150 Lightning EV in July. Our teams of engineering and production experts have been in communication with Ford throughout the entire process to ensure quality and efficiency prevailed. This endeavor has showcased a lot of talent and perseverance from our work force and we are incredibly proud to be a partner with such a leader in the industry.

This line sits adjacent to a new 4400-ton Engel press to expedite the manufacturing process.

This entire production line sits in our West Plant facility and has been a new source of pride to this already well established plant that primarily focuses on parts for the Automotive Industry.



Supplier Quality Excellence Award

Cascade Engineering was awarded the General Motors Supplier Quality Excellence Award (SQEA) for 2022.

This award recognizes General Motors’ top performing supplier manufacturing locations. Suppliers who achieve the SQEA award have met or exceeded very stringent Quality performance criteria, and received cross-functional support by the entire GM organization for the 2022 calendar year.

Rick Demuynck, Executive Director of General Motors Supplier Quality and Development, stated, “Cascade Engineering is a critical part of the General Motors team that helps ensure their customers are delighted with the products they purchased. General Motors wants to recognize Cascade Engineering’s performance and on behalf of the entire Global Supplier Quality team, thank Cascade Engineering and its entire team for their continued outstanding performance and for being a valued partner to General Motors.”



Manufacturing Excellence

Industry 4.0

We are now in the fourth industrial revolution, also referred to as Industry 4.0. This revolution is characterized by increasing automation and the employment of smart machines and smart factories. Informed data helps to produce goods more efficiently and productively across the value chain.

Cascade Engineering has made increasing strides toward this advancement of manufacturing excellence. We have added new presses and robots with smart capabilities throughout our manufacturing facilities which has drastically increased efficiency.

In 2023, we installed our first collaborative robot (COBOT) in our North Plant supporting Miller Knoll chair components. This upgrade has enhanced our quality without the need for additional labor. We will be adding more COBOTS like this in the near future.



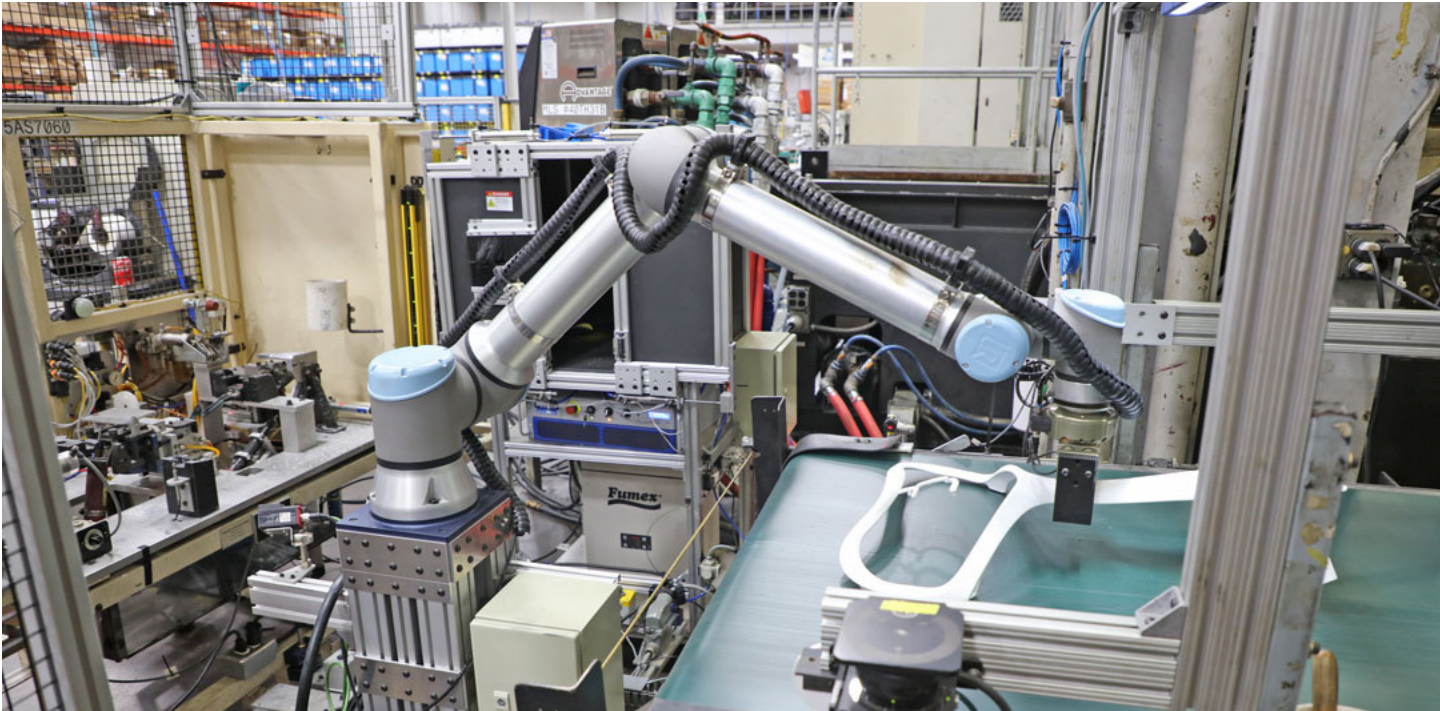
ENGEL

Engel has been our strategic partner for large tonnage Hydraulic injection machines. All new Engle machines are securely connected to our network, which gives us the ability to remotely troubleshoot and monitor all production data. These machines are also equipped with a smart predictive maintenance system that senses functionality trends to avoid unplanned downtime.

In the last four years, we have added four new Engel presses and in 2023 we have added two more.

These machines have helped on all accounts. They have increased efficiency through network abilities, smart systems functions and shorter cycle times.

These investments have helped the Cascade Cart Solutions team at our Buursma Plant exceding their goal of producing 1.8 million carts.



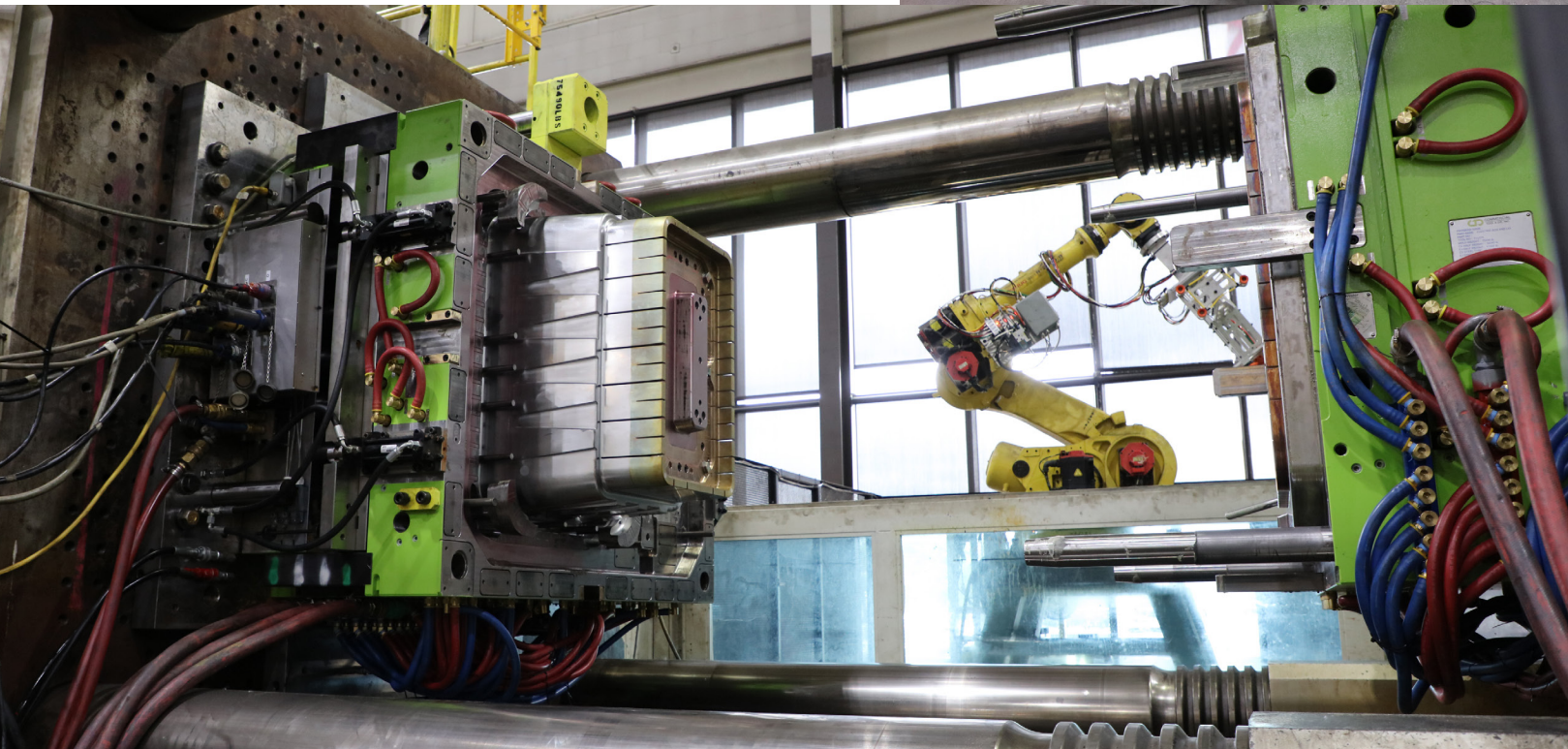
Innovative Plastic Technology

The Handhole Product

The Handhole is an optical bin that is buried underground to house various optical cabling or equipment. Sold by Integrated Plastics, we first manufactured this product in April of 2023. The growth of urbanization and infrastructure development projects drives demand for Handhole enclosures across the continent.

In urban environments, there is a growing emphasis on maintaining aesthetic appeal while ensuring the functionality of utility infrastructure. Handhole enclosures are designed to blend with the surroundings and harmonize with the urban landscape.

While previous Handholes were most commonly made of concrete, Integrated Plastics identified a need for an additional product in the market that was lighter, yet still strong. The design of their Handhole meets and exceeds industry standards. An innovative change is the “true-flared” mouth, which prevents flex of the side of the wall during installation.



Cascade Engineering Europe

Fluid Connectors

In conjunction with our commitment to focus on our core business in Grand Rapids, Michigan, in July of 2023, Cascade Engineering reached an agreement with TI Fluid Systems (“TIFS”) to acquire Cascade Engineering Europe (“CEE”) in Budapest, Hungary.

Although we are saddened to part ways with our CEE team members, we know that they will be joining a well-run and highly regarded international organization that will invest in their future growth.

Cascade Engineering Europe (CEE) has been a leading designer and manufacturer of fluid connectors and complex plastic injection molded components for the automotive industry. CEE has been a standalone business unit of Cascade Engineering since 1992, operating from a strategically located campus in Budapest, Hungary.

CEE designs, manufactures, and assembles fluid connectors, two-shot injection products (i.e., HVAC flaps), interior kinematic assemblies, and electronic vehicle (EV) battery components.

CEE is one of the largest suppliers of quick connectors and fittings for engine and EV battery cooling systems. The Company’s automated production lines allow more than 30 million parts to be assembled annually in around 300 variants for some of the most demanding automotive OEM and tier 1 suppliers. CEE’s proven strength is the achievement of complete bonding and no color migration in its highly engineered two-shot components, which require a sophisticated injection molding process of two different materials in a single mold. They continue to be a supplier of choice on new fluid connector programs and have great success with key customers on next-generation platform nominations.

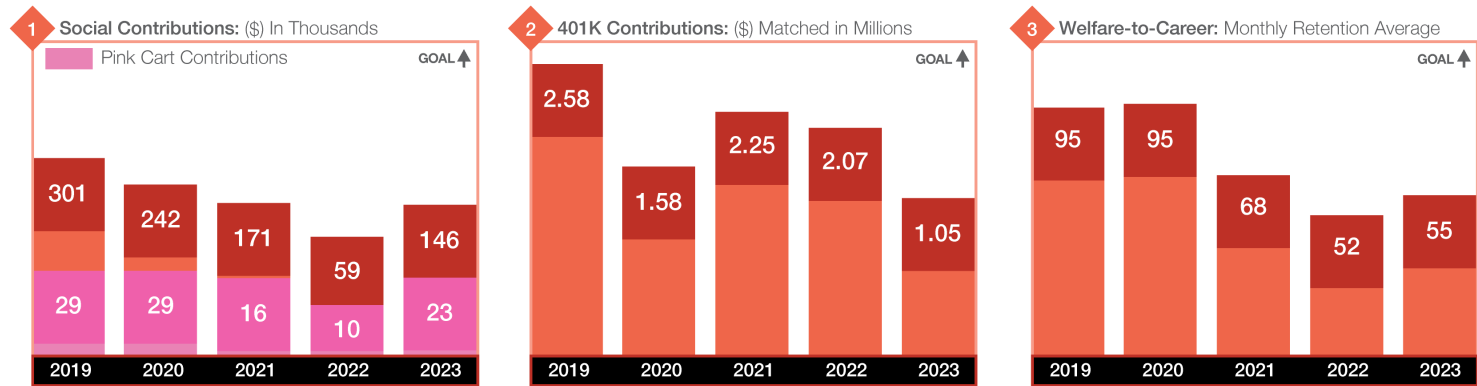


TBL Scorecard

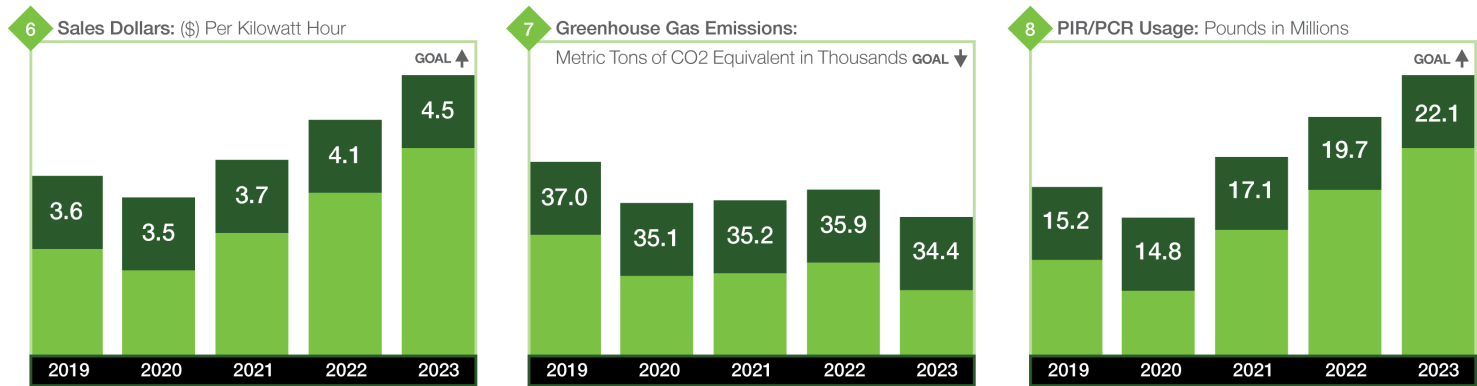
FY2023 Metrics

Our Triple Bottom Line Report culminates with company metrics. It is important for us to be transparent and reflect our progress on the key indicators that support our TBL philosophy.

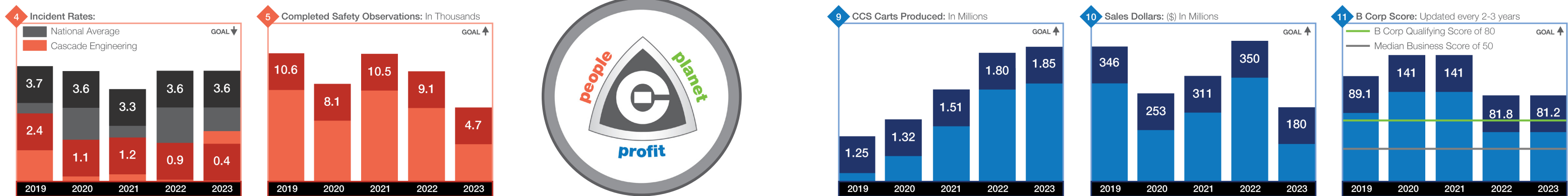
PEOPLE



PLANET



PROFIT



*With the sale of CKT in 2022, data points have shifted to represent the Grand Rapids campus only

celebrating



1973 - 2023