



VIBRANTZ
TECHNOLOGIES™

2024

CORPORATE SOCIAL RESPONSIBILITY REPORT



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Please contact csrcouncil@vibrantz.com for information about this report.

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ABOUT VIBRANTZ AND THIS REPORT

Vibrantz Technologies Inc. (Vibrantz) is a leading global provider of specialty chemicals and materials solutions whose purpose is to bring color, performance and vibrancy to life. Every day, our products are used in small amounts to make sizable impacts on a variety of industrial and consumer applications.

Our core Advanced Materials products play a crucial role in agricultural and metallurgical products, serve as a key raw material in alkaline batteries, and are used in essential electronic devices. Our novel high-purity manganese sulfate (HPMSM) technology, which has been verified to have a much lower carbon footprint than alternatives, is also a critical input for lithium-ion batteries that power electric vehicles.

Our trusted Color Solutions business is a one-stop shop for specialty pigments and liquid dispersions that bring color and performance advantages to architectural and industrial paints, coatings, thermosets and thermoplastics. Our Pearls™ tinting solution of solid colorants continues gaining traction globally as the only biocide-free tinting product for do-it-yourself paints in the form of spherical, solid colorants. Additionally, our infrared reflective (IRR) pigments are increasingly utilized in architectural and industrial coatings to help conserve energy in homes and buildings and can aid the sorting and recyclability of dark plastics.

Our long-standing Performance Coatings innovations include porcelain enamels and ceramic coatings engineered to help household appliances last longer, perform better and operate safely, and enable cookware to be made without lead or other "[forever chemicals](#)." We continue transforming the digital printing of inks on glass and ceramic surfaces, contributing to improved decoration of interior and exterior spaces.

This report highlights our 2024 progress in key environmental, social and governance areas made possible through the collective efforts and commitment of our 4,000 employees worldwide.

Already in 2025, we continue to act with a sustainable mindset as we optimize our operations and strengthen our commitment to and impact on customers, lenders, consumers and the communities where we live and work. We invite you to follow our [CSR](#) initiatives, community partnerships and impactful projects at www.vibrantz.com/CSR and stay connected with us on LinkedIn as we impact our world by bringing color, performance and vibrancy to life.



A MESSAGE FROM VIBRANTZ CFO MICHAEL TURNER

We are proudly publishing our 2024 CSR report. As we continue 2025, we do so with a solid foundation as a safer, more efficient organization that is strengthening our ability to serve customers consistently.

EY-Parthenon's 2025 "CEO Outlook" highlighted the ever-present reality that disruption never sleeps¹. This is true perhaps now more than ever, as 2024 was yet another volatile year for our markets, peers, competitors and the world at large. For Vibrantz, last year was about staying agile and adapting to the ongoing uncertainty around us. As a team, we remained nimble thanks to our employees' commitment to working hard and smart, maintaining a strong focus on safety, achieving our performance objectives, driving continuous improvement initiatives, and investing in and hiring top talent.

This agility required us to adapt the pace and nature of some of our priorities en route to achieving our goals, and I am proud that our focus

on reaching our sustainability targets never wavered. In fact, we met, and in some cases exceeded, our CSR key performance indicators and gained further recognition by respected industry organizations and ratings agencies. We:

- Joined the United Nations' Global Compact and the Responsible Minerals Initiative.
- Received company-wide Ecovadis recognition with a Bronze medal, an advancement beyond our 2023 "Committed" badge, and increased our "Environment" score by 50%.
- Received Platinum and Silver Ecovadis medals for our Spain and Netherlands sites, respectively.
- Made significant progress in our Ecovadis supply chain assessment in EMEA.
- Completed the first iteration of our [life cycle assessment \(LCA\)](#) on our revolutionary Pearls solid-colorant tinting technology.

We also made key strides specific to the core drivers of our CSR strategy.

- **Ethically centered:** We achieved our first zero recordable injury month in June 2024 and our injury rate in 2024 was over 50% lower than 2023.
- **Financially strategic:** We acquired Micro Abrasives, a leader in alumina-based lapping materials for semiconductor production, marking our first company acquisition as Vibrantz. We advanced adoption of near-infrared (NIR) pigments to enable improved dark plastics recycling in Europe and the Americas, and expanded our portfolio of NIR pigments for building energy efficiency. We also broke ground in the Netherlands on what will become the new production site for our Edison Award-winning Pearls technology. And for our battery-grade manganese innovation, we completed our pilot program and published our LCA, demonstrating a carbon footprint that is over 80% lower than alternatives.
- **Environmentally responsible:** We made substantial improvements in how we gather data, report externally and make on-site improvements, evidenced by our Ecovadis "Environment" score increasing by nearly 50% from 2023 to

- 2024. Our primary focus has been improving performance on [greenhouse gas \(GHG\) emissions](#) where we achieved a significant 13% reduction (2023 emissions versus 2022 baseline) alongside working toward our first Scope 3 baseline.

- **Socially connected:** Largely due to the growing participation in our annual virtual five-kilometer (5k) event, we met our goal of 40% employee participation in our "Vibrantz in Action" (VIA) philanthropy program that encourages employees to embody our values and contribute to our local communities.

As we continue our journey in 2025, our focus is clear: We will continue driving growth by delivering exceptional value to our customers. This year we expect to complete a full global supply chain review in all our operating regions, and our CSR Council will be laser-focused on safety performance, product footprint and LCA completion, supply chain compliance, ethics, community outreach, and Scope 1, 2 and 3 GHG reporting.

Although we cannot predict how broader economic conditions will play out this year, I remain confident in Vibrantz's continued ability to meet whatever challenges arise. With adaptability and agility deeply embedded into our operating DNA, we are committed to continuing to deliver on our promise to make every day brighter and more functional for customers and consumers. We invite you to continue following our journey to become world-class.

MICHAEL TURNER, EVP and CFO

WHO WE ARE AND ASPIRE TO BECOME

We are a specialty chemicals and materials company that transforms low-value raw materials into high-value specialty products. Our customers use small amounts of our solutions in their technologies to improve the performance, safety and/or aesthetics of products that ultimately enhance everyday consumer products.

PURPOSE

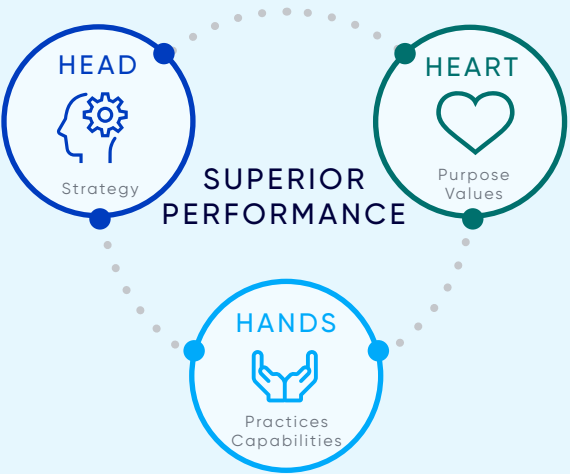
**We bring color,
performance and
vibrancy to life**

VISION

We aspire to be a world-class specialty chemicals and materials company that is an employer and supplier of choice

SYNERGY

Connecting people's heads, hands and hearts to our purpose leads to engagement, ultimately yielding a unique competitive advantage and financial outperformance compared to peers.



VALUES

Our core values are rooted in our belief in the power of engaging heads, hands and hearts.

SAFETY

- Aspire to be injury free
- Look out for each other
- Be accountable

CUSTOMERS

- Deliver highest quality
- Listen to needs and go the extra mile
- Follow through on commitments

OUR PEOPLE

- Encourage learning, adapting and growth
- Value authenticity and diversity
- Foster engaging environment

ENVIRONMENTAL STEWARDSHIP

- Favorably impact the planet
- Innovate and improve products 24/7
- Use resources responsibly and efficiently

EXCELLENCE

- Set high standards
- Problem solve collaboratively
- Challenge status quo to drive improvement

ETHICS, INTEGRITY AND TRUST

- Communicate respectfully and transparently
- Do the right thing every time
- Foster comfort with raising concerns

VIBRANTZ AT A GLANCE

Headquartered in Houston, Texas, we are a global, diversified specialty chemicals and materials company of scale with leading positions in attractive end-use markets.



ADVANCED MATERIALS

Specialty mineral additives and battery and electronic materials for the following applications:

- Animal and crop nutrition
- Automotive
- Battery raw materials
- Brick and roof tile colorants
- Optical and semiconductor polishing
- Electronic ceramic components
- Electronic packaging materials
- Glass colorants
- Oilfield drilling fluid additives
- Metallurgical sands and additives



COLOR SOLUTIONS

Dry pigments and liquid dispersions for the following applications:

- Architectural coatings
- Automotive coatings
- Construction
- Fabrics
- Food packaging
- Health and personal care
- Industrial coatings
- Plastics
- Thermosets



PERFORMANCE COATINGS

Porcelain enamel and ceramic and glass coatings for the following applications:

- Appliances
- Architectural specialty glass
- Appliance specialty glass
- Automotive glass
- Dental composites
- Dinnerware
- Glass containers
- Holloware
- Roof tiles
- Sanitaryware

OUR GLOBAL PRESENCE

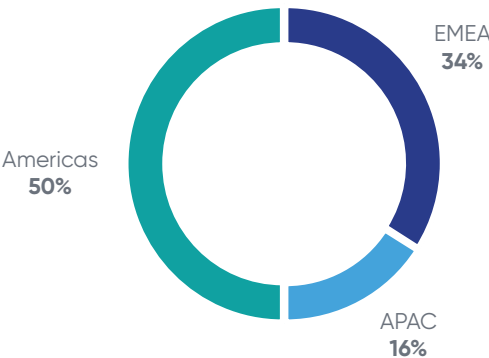
~4,000 employees | 11,000+ customers worldwide | ~50 manufacturing sites globally



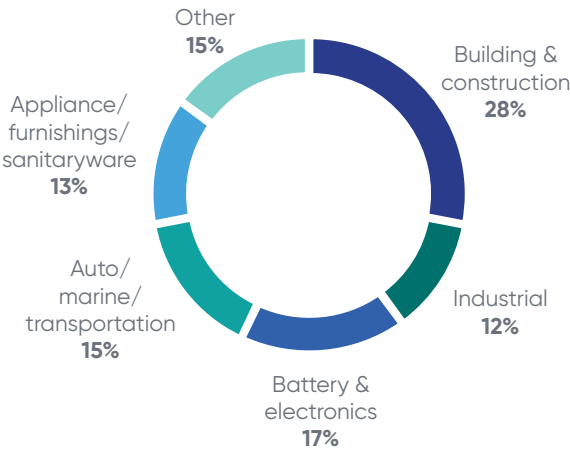
HOUSTON, TEXAS
headquartered

LEADER
in attractive end-use markets

SALES BY GEOGRAPHY



SALES BY END MARKET



OUR BUSINESS UNITS AT A GLANCE

We have a rich and established legacy as experts in particle engineering, color technology and glass and ceramic science and our products are used in key well-known markets.

ADVANCED MATERIALS

We are a leading producer of specialty mineral additives and battery and electronic materials for highly specialized applications. We:

- Leverage over 60 years of expertise in manganese chemical production, offering reliability and stability to help customers predict and mitigate raw material fluctuations.
- Provide high-value surface polishing materials for optical and electronic circuit applications.
- Are a value-added processing intermediary between large global raw material suppliers and end-market customers.
- Possess 40+ years of experience serving the clay brick industry with unmatched testing to ensure consistency, reduce waste and proactively prevent quality issues.

COLOR SOLUTIONS

We offer the industry's most diverse range of pigments, colorants and dispersions for the paints and coatings, plastics, and building and construction markets. We:

- Are a one-stop shop for high-performing, functional and sustainable pigments and liquid color solutions.
- Continue advancing Pearls technology, the coatings industry's only system of solid colorants and dispensing equipment for use in the tinting of water-based paints.
- Are impacting sustainability for customers by advancing the use of reflective pigments that enable more energy efficient building exteriors and improved plastics recycling.
- Remain the world's largest producer of complex inorganic color and ultramarine blue pigments.

PERFORMANCE COATINGS

We are the premier supplier of porcelain enamel, ceramic and glass coatings. Our materials are used across automotive, construction, home appliance and decorative applications. We:

- Provide the broadest range and highest quality porcelain enamel, ceramic and glass coatings products with unmatched technical service.
- Have over a century of expertise in glass science and particle engineering.
- Supply porcelain enamel technology that eliminates harmful chemicals from cookware surfaces and self-cleaning ovens.
- Collaborate closely with customers to design specialized products that respond to changing market dynamics.

WE ELEVATE THE EVERYDAY

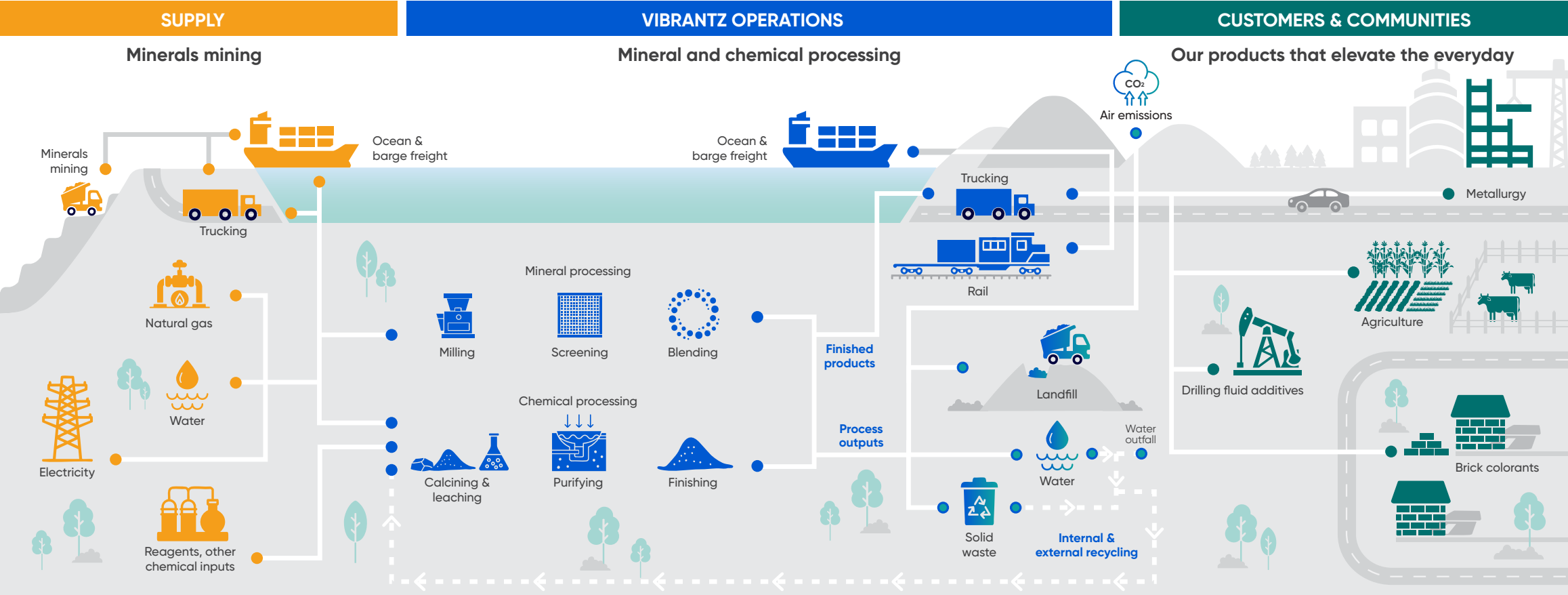
Our advanced materials, color solutions and performance coatings are used in small amounts to make sizable impacts on many industrial and consumer applications. These are just a few of the end markets in which we play.



 Denotes a Vibrantz-led green initiative that aims to reduce environmental impact, conserve resources, increase recycling and/or promote sustainability. More information can be found throughout this report.

VIBRANTZ MINERALS VALUE CHAIN

This illustration shows key stages and processes common to our Minerals business – from manufacturing to end use in industrial and consumer products – highlighting how we add value through innovation, technical expertise and sustainable practices.



STAKEHOLDER & VALUE ALIGNMENT

• Resilient supply chain

• Employees
• Safety
• Innovation

• Quality assurance
• Responsible governance
• Customer service

• Environmentally responsible
• Business integrity and ethics
• Community relations
• Waste management

• Product performance
• Partner of choice

RISK FACTORS

Circular economy requirements • Health and safety risks • Supply chain traceability*

• Land use change (mining, extraction)
• Affected communities
• Ethical and responsible mineral sourcing

• Energy security (fossil fuel costs)
• Resilient water supply (e.g., water scarcity)

• Waste, emissions and pollution compliance

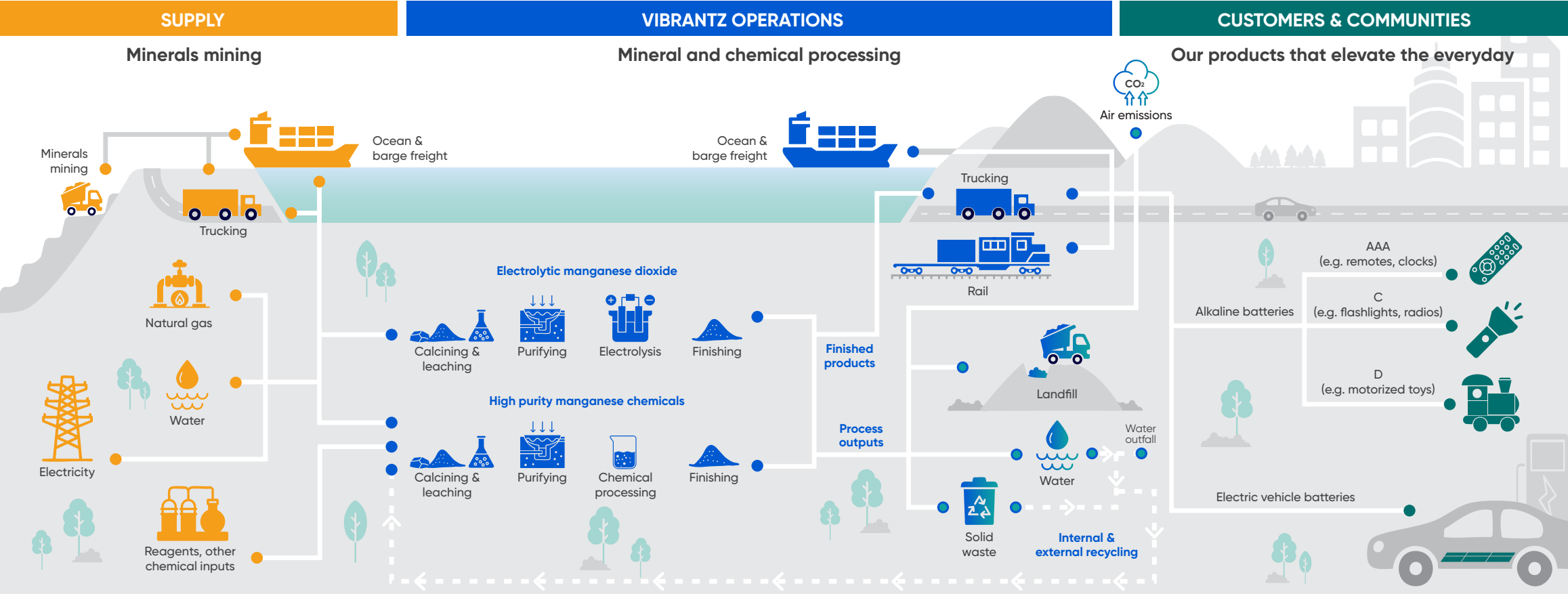
• ESG data and disclosure

• Product safety
• Energy transition reducing drilling fluid needs
• Potential regulatory changes for agriculture chemicals

*These risk factors apply across the value chain.

VIBRANTZ BATTERIES VALUE CHAIN

This illustration shows key stages and processes common to our Batteries business – from manufacturing to end use in industrial and consumer products – highlighting how we add value through innovation, technical expertise and sustainable practices.



STAKEHOLDER & VALUE ALIGNMENT

• Resilient supply chain

• Employees
• Safety
• Innovation

• Quality assurance
• Responsible governance
• Customer service

• Environmentally responsible
• Business integrity and ethics
• Community relations
• Waste management

• Product performance
• Partner of choice

RISK FACTORS Circular economy requirements • Health and safety risks • Supply chain traceability*

• Land use change (mining, extraction)
• Affected communities
• Ethical and responsible mineral sourcing

• Energy security (fossil fuel costs)
• Resilient water supply (e.g., water scarcity)

• Waste, emissions and pollution compliance

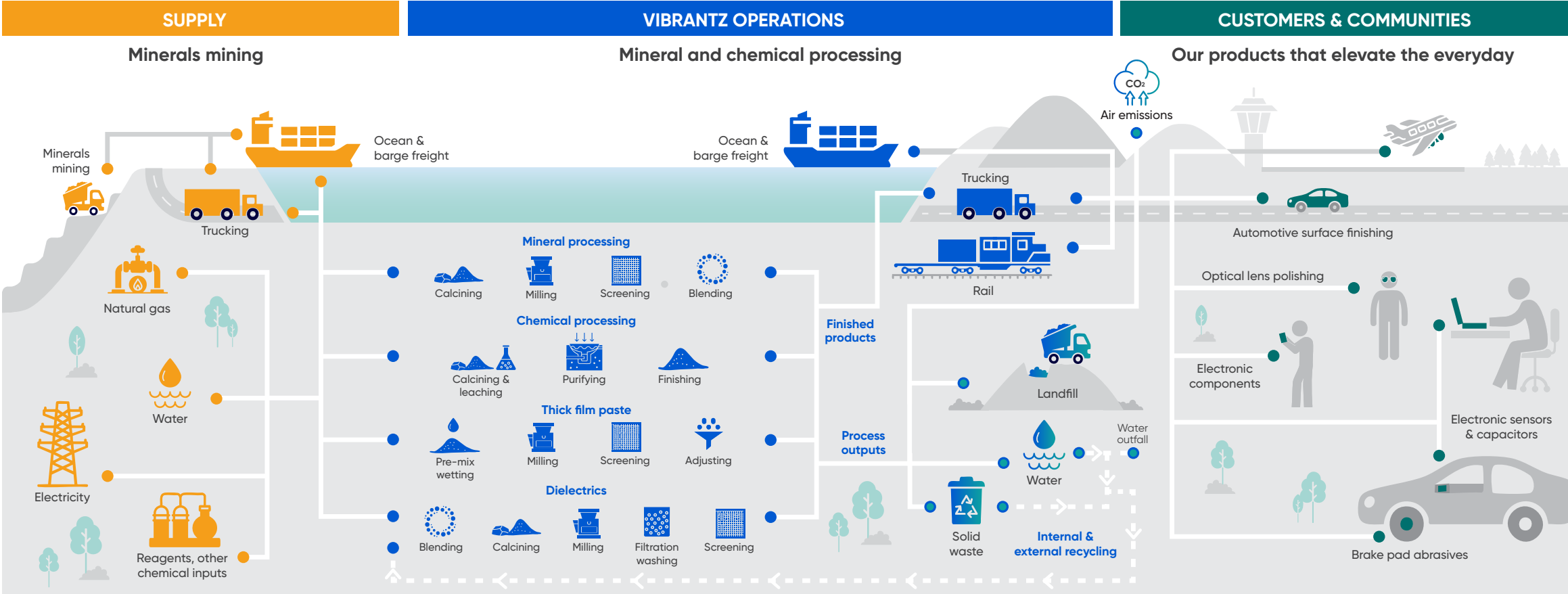
• ESG data and disclosure

• Product safety
• End-of-life disposal

*These risk factors apply across the value chain.

VIBRANTZ ELECTRONICS AND SURFACE TECHNOLOGIES VALUE CHAIN

This illustration shows key stages and processes common to our Electronics and Surface Technologies business – from manufacturing to end use in industrial and consumer products – highlighting how we add value through innovation, technical expertise and sustainable practices.



STAKEHOLDER & VALUE ALIGNMENT

• Resilient supply chain

• Employees
• Safety
• Innovation

• Quality assurance
• Responsible governance
• Customer service

• Environmentally responsible
• Business integrity and ethics
• Community relations
• Waste management

• Product performance
• Partner of choice

RISK FACTORS

Circular economy requirements • Health and safety risks • Supply chain traceability*

• Land use change (mining, extraction)
• Affected communities
• Ethical and responsible mineral sourcing

• Energy security (fossil fuel costs)
• Resilient water supply (e.g., water scarcity)

• Waste, emissions and pollution compliance

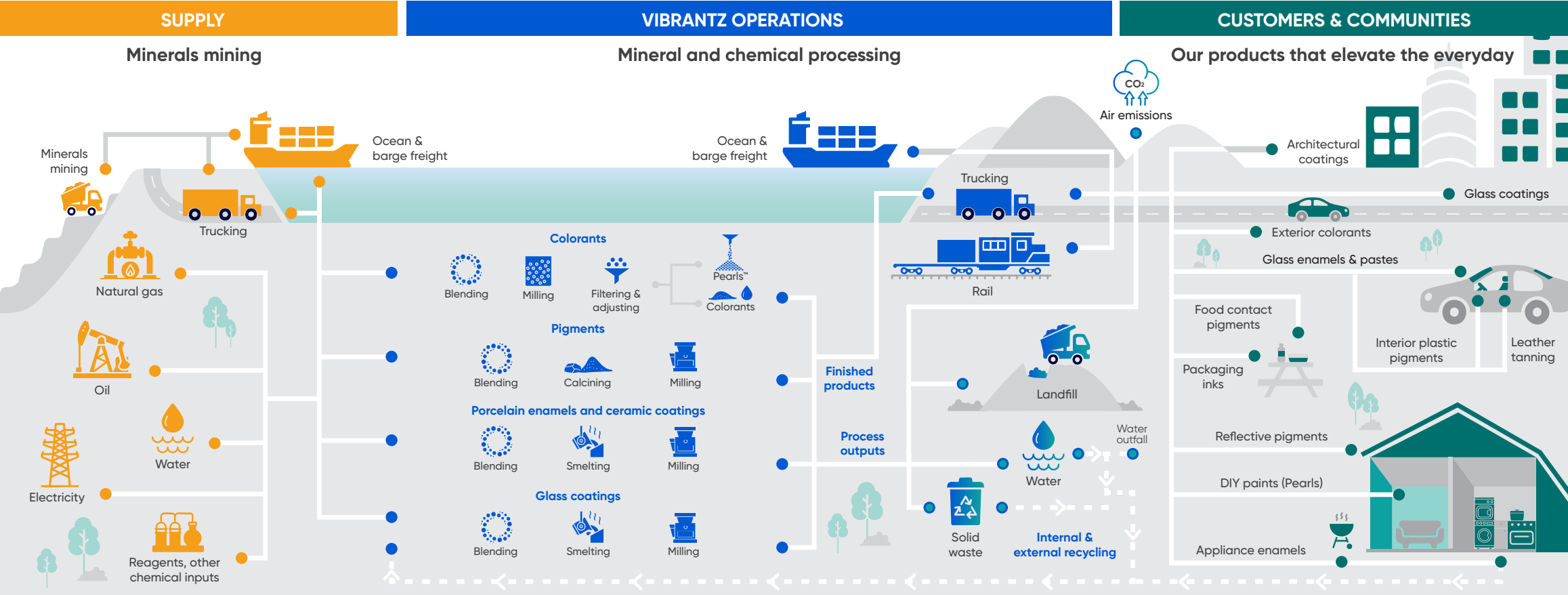
• ESG data and disclosure

• Product safety
• End-of-life disposal

*These risk factors apply across the value chain.

VIBRANTZ FUNCTIONAL COATINGS VALUE CHAIN

This illustration shows key stages and processes common to our Functional Coatings business – from manufacturing to end use in industrial and consumer products – highlighting how we add value through innovation, technical expertise and sustainable practices.



STAKEHOLDER & VALUE ALIGNMENT

• Resilient supply chain

• Employees
• Safety
• Innovation

• Quality assurance
• Responsible governance
• Customer service

• Environmentally responsible
• Business integrity and ethics
• Community relations
• Waste management

• Product performance
• Partner of choice

RISK FACTORS

Circular economy requirements • Health and safety risks • Supply chain traceability*

• Land use change (mining, extraction)
• Affected communities
• Ethical and responsible mineral sourcing

• Energy security (fossil fuel costs)
• Resilient water supply (e.g., water scarcity)

• Waste, emissions and pollution compliance

• ESG data and disclosure

• Product safety
• End-of-life disposal

*These risk factors apply across the value chain.

OUR CSR MINDSET

Over the course of 2024, Vibrantz has continued to emphasize its powerful shared belief that we are the best versions of ourselves when we are connected to and positively impacting others, through advancing our CSR roadmap and actions. Our CSR mindset is anchored by three governing principles with these focus areas:



GOVERNANCE

ETHICALLY CENTERED

We engage honestly with employees, make a positive impact, are authentic and build long-term trust with our stakeholders.

[Read our Ethically Centered section](#) to find out progress we made in 2024 on governance, safety, business ethics and our supply chain.

FINANCIALLY DISCIPLINED

We make intelligent investments that consider more than the bottom line, including business opportunities that align with our core purpose, improve risk management and promote innovation.

[Read our Financially Disciplined section](#) to find out more about governance, our growth strategy and responsible manufacturing and product management.



ENVIRONMENT

ENVIRONMENTALLY RESPONSIBLE

Environmental stewardship is one of our core values and we recognize the importance of embracing sustainable practices in our operations.

[Read our Environmentally Responsible section](#) to find out more about [climate change](#) and [carbon](#), [waste](#) and [circular economy](#), [water](#) and [wastewater management](#), [air quality](#), and [nature](#) and [biodiversity](#).



SOCIAL

SOCIALLY CONNECTED

We actively support each other's betterment through ongoing connection to and celebration of our values, and we give back to our communities through volunteerism.

[Read our Socially Connected section](#) to find out more about employee engagement, well-being, belonging, and community impact and philanthropy.

The remainder of this report is structured around the three governing principles and Vibrantz's four core focus areas. Each section concludes with an overview of key opportunities, which highlights areas for improvements, and our priority actions for this year.

OUR CSR COUNCIL

The Vibrantz CSR Council continues to play a central role in ensuring sustainability remains at the heart of our everyday, under the leadership of our chief financial officer, Michael Turner.



MICHAEL TURNER
Executive Vice President and
Chief Financial Officer



ALISON LANDIS
VP, Deputy General Counsel
CSR Council lead



NATURE POSITIVE
External CSR partner



AMY CHICONAS
Stakeholder Impact

Better connect audiences to the long-term impacts of our purpose



ANTONI PINEIRO
Sustainable Procurement

Develop sustainable procurement values, policies and processes to improve our performance



QIAN SHEN
Environment and Systems

Assess our environmental impact and develop systems, strategies and targets to improve performance



TODD PEW
Product Stewardship

Review impacts in our product value chains and manage our resources to minimize negative impacts



JEAN-THIBAUT DE BESOMBES
Products and Analytics

Analyze the full lifecycle of our products from cradle to grave to drive differentiated value propositions

OUR CSR JOURNEY

APRIL 2022

- Vibrantz formed from the combination of Chromaflo, Ferro and Prince



2022

NOVEMBER 2022

- Partnered with Nature Positive



JANUARY 2023

- CSR roadmap finalized

2023

JUNE 2023

- Began implementation of employee involvement committees at sites to support culture and engagement efforts



SEPTEMBER 2023

- Ecovadis supply chain assessment for Color Solutions EMEA completed
- Second annual global 5K event
- Sustainable procurement policies published

DECEMBER 2023

- Ecovadis rating questionnaire completed
- Ecovadis supply chain assessment for all EMEA launched
- Achieved a "Committed" badge on our 1st Ecovadis assessment

2024

SEPTEMBER 2022

- First annual global five-kilometer (5K) event brought together employees and families



DECEMBER 2022

- CSR Council formed
- Materiality assessment began
- Ecovadis supply chain assessment for Color Solutions EMEA launched

APRIL 2023

- Materiality assessment completed

AUGUST 2023

- Launched "Vibrantz in Action" global philanthropy program



NOVEMBER 2023

- Launched Supplier Code of Conduct acknowledgement
- U.S. Employee Handbook completed



- Achieved a Bronze medal on 2nd Ecovadis assessment



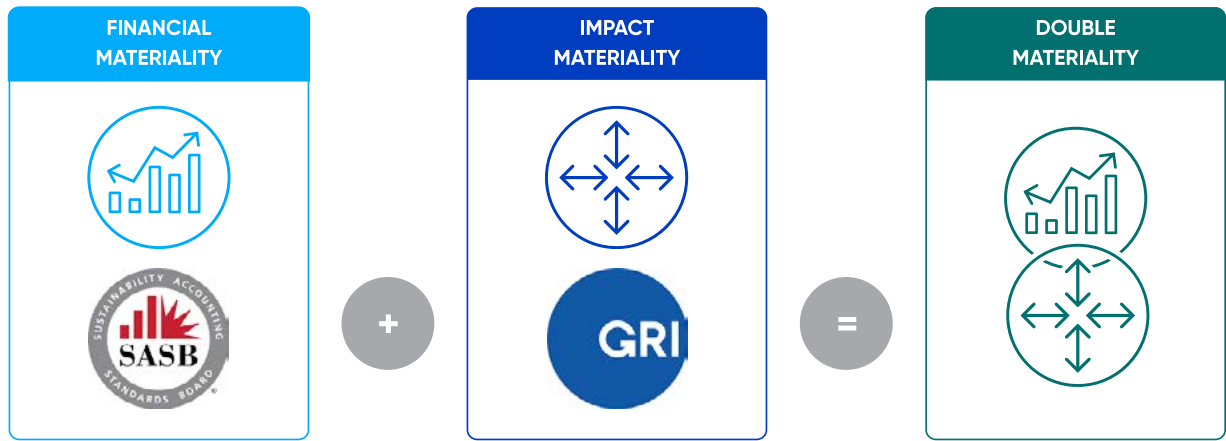
- Became a member of the United Nations (UN) Global Compact



- Joined the Responsible Minerals Initiative

MATERIALITY ASSESSMENT

We remain committed to developing and delivering a corporate strategy that supports our stakeholder needs while aligning with evolving global sustainability regulations. In 2023, we undertook a materiality assessment using best-practice guidance from Sustainability Accounting Standards Board (SASB) and Global Reporting Initiative (GRI) standards focusing on both the “outside in” risks and opportunities for Vibrantz from a financial perspective, as well as the “inside out” [environmental, social and governance \(ESG\)](#) impacts to wider stakeholders and the environment.



Recognizing that we expect our European operations to fall within the scope for compliance with the European Union’s (EU) Corporate Sustainability Reporting Directive (CSRD), we will be building on our 2023 materiality assessment with a refined methodology in 2026 to align fully with the European Sustainability Reporting Standard’s (ESRS) and associated ESG topics. In this updated double materiality assessment, we will reassess and refine our material ESG topics to align to those in the ESRS and will engage with a range of internal and external stakeholders to identify and validate material impacts, risks and opportunities.

We expect the results of this updated double materiality assessment to be available in Q2 of 2026, however, in the meantime we will continue our progress against the material topics identified in 2023, which underpin our current sustainability reporting and company-wide initiatives.

1

Privacy and data security

2

Chemical and product safety

3

Community relations

4

Health and safety (employee)

5

Employee experience and development

6

Diversity and belonging

7

Fair and equitable pay

8

Waste and circular economy

9

Sustainable value chain

10

Innovation

11

Climate change adaptation

12

Product lifecycle

13

Accounting

14

Risk management

15

Ownership and control

16

Business ethics

17

Nature and biodiversity

18

Greenhouse gas emissions

19

Water and wastewater management

20

Air quality (non GHGs)

- Social capital
- Human capital
- Business model and innovation
- Governance and leadership
- Environment



SDG ALIGNMENT

The UN 2030 Agenda for Sustainable Development outlines 17 Sustainable Development Goals (SDGs) designed to build long-lasting “peace and prosperity for people and the planet.” The SDGs continue to be an important way for Vibrantz to review our progress and demonstrate our commitments and actions relating to responsible business across environmental, social and governance themes. While we are committed to support all 17 goals wherever feasible, we recognize that we can provide varying contributions to each. Below are the most pertinent SDGs, along with commentary on our progress against each in 2024.

See the relevant sections for more details about the actions we are taking to advance our positive impact.

SDG	OUR COMMITMENT	PROGRESS AND ACTIONS IN 2024
	Continue to apply effective internal safety procedures, product quality control and management of hazardous chemicals.	• Our year-end 2024 trailing twelve-month total recordable incident rate was 0.60, We achieved zero recordable injuries for the first time in June 2024 and had a 2024 injury rate that is 68% lower than our first day as Vibrantz in April 2022 and 50% lower than 2023. • Utilized Vector platform to expand access to real-time incident information and lessons learned on a global scale. • Delivered “Leading with Safety,” executive coaching and frontline leadership programs.
	Ensure no pollution to water systems and lower our water usage especially in water stressed regions.	• We have updated our water risk analysis based on 2023 usage data with findings included in water and wastewater management section. • Site initiatives include water reuse projects, improved water purification processes and replacing chemical additives with organic compounds.
	Support renewable energy generation and efficiency through our operations and products.	• Several of our sites source renewable energy, with some at 100% and other sites investing into on-site renewable solutions such as solar panels. • Key products that support renewable energy include glass enamels for photovoltaic panels and manganese sulphate for EV batteries.
	Create job opportunities and provide decent work for our employees, as well as working with our value chain to improve human rights standards for all.	• Completed employee surveys in 2024 and planning another in 2025 to understand our strengths and any emerging issues across our workforce. • Vibrantz engages students and young professionals through internship and apprenticeship programs globally. In 2024, we hosted 43 interns across our global sites: 16 in the U.S. and 27 in Europe and South America. • At our Houston headquarters, we partner with a local community organization to connect with some of our interns and host others from nearby networks and universities, offering diverse opportunities aligned with their fields of study. Other sites recruit interns to meet specific departmental needs or align with local university programs.
	Increase sustainability and efficiency of industrial processes through our operations, R&D and products.	• Pilot LCA commenced for six products – Pearls, Ultramarine Blue, BiVa, PE frits, PERC powders and Mn3O4LH. Completion of these pilot assessments is expected in 2025. • Several product innovations increase the sustainability of buildings, infrastructure and products (see more on page 24).
	Improve sustainability across Vibrantz operations and our value chain, including through materials sourcing, waste management, circular principles, technology and efficiency improvements.	• Continued expansion of the Ecovadis supply chain assessment, with the aim of incorporating all global suppliers by end of 2026. • 100% supplier response for CMRT minerals. • 100% response for EMRT cobalt suppliers. • Over 75% EMRT response for mica suppliers.
	Reduce our carbon footprint, increase resilience, reduce climate impact of products and support a transition to a low-carbon society.	• Reduction in Scope 1 and 2 carbon emissions by 13% between 2022–2023. • Developing long-term emissions reductions targets and Scope 3 reporting processes. • We continue to work on innovations to lower our customers’ GHG emissions profiles. For example, our 80°C low-curing, water-based coating system reduces energy use and resultant GHG emissions by 70% compared to traditional manufacturing processes.
	Reduce plastics and other pollutants from operations, products and packaging where feasible. Support the protection and restoration of ecosystems once our nature-related risks and opportunities are understood.	• Advanced NIR pigment adoption in Europe and secured new opportunities in the Americas, which increased customers’ ability to recycle dark plastic material.
	Reduce environmental impacts from operations, supply chain and products, and support protection and restoration of ecosystems once our nature-related risks and opportunities are understood.	• Substantial reduction in Scope 1 and 2 GHG emissions. • Identified sites with highest water stress risk for targeted efficiency reductions. • VIA events including nature friendly actions such as planting and supporting wildlife rescue initiatives.
	Ensure effective, transparent and fair governance across our organization and supply chain.	• Joined UN Global Compact. • Achieved a Bronze rating from Ecovadis in early 2025.

OUR SCORECARD

MATERIAL TOPIC	KEY PERFORMANCE INDICATOR (KPI)	TARGET	TARGET YEAR	PROGRESS
HEALTH AND SAFETY				
Ethically Centered	Total recordable incident rate (TRIR)	0.9 TRIR	2024	
		0.4 TRIR	2028	
		0.2 TRIR	2030	
COMMUNITY RELATIONS				
Socially Connected	Percentage (%) of total employees that participate in a “Vibrantz in Action” event	40%	2024	
		60%	2025	
		80%	2026	
GHG EMISSIONS				
Environmentally Responsible	Reduction in total Scope 1 and 2 GHG emissions based on 2022 baseline	4%	2025	
	Long-term Scope 1 and 2 emissions reduction target set	Completed	2024	
	Carbon management plan and Scope 3 targets complete for high-priority sites	Completed	2026	
PRODUCT LIFECYCLE / SUSTAINABLE SOURCING				
Financially Disciplined	LCAs on all six pilot products	Completed	2025	
	Ecovadis supply chain assessment complete for our three business units and three operating regions	100%	2025	

ACHIEVED

ON TRACK

DELAYED



GOVERNANCE

ETHICALLY CENTERED

FINANCIALLY DISCIPLINED

ETHICALLY CENTERED

Since our formation, Vibrantz has fostered a company culture centered on ethics, integrity and trust. As one of our six core values, Vibrantz values respectful, open and transparent communication, doing the right thing every time and ensuring there are avenues to voice concerns. From governance to business interactions, to the health and welfare of our employees, Vibrantz is creating a culture where ethics is central to how we work and contribute to our communities.

GOVERNANCE

Corporate governance sets the foundation for driving ethical behavior throughout the organization. Vibrantz is a U.S. corporation governed by a diverse board of three internal and five external managers who were selected based on their professional backgrounds including relevant industry experience and proven track records in leadership and governance positions. The managers continue to serve in various professional capacities and recuse themselves from any discussions where they have a conflict or a direct personal or pecuniary interest that could affect their judgment.

BOARD OF MANAGERS



CYNTHIA CARROLL



NATASHA KINGSHOTT



MARK LOVETT



KENT MASTERS



CRAIG ROGERSON



WILLSON ROPP



MICHAEL WILSON



SCOTT WOLFF
Chairman

VIBRANTZ LEADERSHIP TEAM



CHRIS DISANTIS
Interim CEO



MICHAEL TURNER
EVP and CFO



MARK WHITNEY
EVP and general counsel



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EVP and chief human resources officer



SURESH RAO
EVP, chief integration and information officer



JACQUES VANIER
EVP, global operations



BARRY MISQUITTA
President,
Color Solutions



VEY GAROFALO
Interim President,
Advanced Materials



MATTHIAS BELL
President,
Performance Coatings

The [Vibrantz leadership team \(LT\)](#) reports to the board and has responsibility for delivering on our corporate strategy. Our Vibrantz LT has worked to create various structures within the company to attract talented people, ensure the sharing of information, focus on compliance with company policies and procedures, and protect our data and information. The Vibrantz LT has been instrumental in the approval and publication of company policies and procedures, with key 2024 examples including global code of ethics training, continued advancement in our global Human Resource Information Systems (HRIS) system, advancement in our [sustainable procurement](#) policies and commitments.

The Vibrantz LT has advanced multiple global goals including significant expansion of our EHS function; launching a global contract and legal document retention system focusing on document control; consolidation of our IT systems and tools. [Vibrantz Online University \(VOU\)](#) continues to serve as our learning management system that allows us to train and educate employees in hundreds of different topics including safety, leadership, finance, compliance and effective management.





SAFETY

With dedicated use of the Vector platform, we continue to expand access to real-time incident information and lessons learned on a global scale. This allows our [environmental health and safety](#) (EHS) and management teams to better understand what is happening at each location, determine root causes and create action plans to address any issues, not just locally but globally, to ensure the safety of our people.

Vibrantz has continued to expand its behavioral-based safety system, SafeStart, to ensure continued progress toward our vision to zero injuries efforts. Expanding use of systems and tools is foundational to our growth as one Vibrantz. In 2024, Vibrantz reemphasized its commitment to our Cardinal Safety Rules through training and communications to all employees.

Because it is important that the company understand the operational, safety and [environmental footprint](#) of each site, each year Vibrantz continues to expand our EHS audit program, evaluating sites to ensure compliance with applicable rules, regulations and permits. This has become a valuable tool at each site as well within each region to ensure we are meeting our compliance and regulatory obligations. In 2024, Vibrantz focused heavily on walking and working surfaces to reduce incidents relating to slips, trips and falls. These focused efforts included updates to driveways, mezzanines, stairs and other working areas.

Vibrantz has its sights set high for 2025. We recently deployed the Vibrantz Safety System to evaluate current safety culture and structures at each of our sites against the core Vibrantz safety principles. We also intend to focus on improving ergonomics through use of our knowledgeable EHS team as well as partnering with artificial intelligence and software solutions that will allow us to identify risks quickly and share information related to risk mitigation in real-time across all of our sites.

BUSINESS ETHICS

Our commitment to conducting business in a way that makes us a partner of choice underpins all we do. The Vibrantz Code of Ethics is central to our ethical commitments and the mandatory global training on this subject served as a powerful reminder of ethical conduct and continued compliance. The legal and IT teams have made significant progress on data privacy management and creating updated policies and procedures to ensure compliance with data privacy requirements around the globe.

SUPPLY CHAIN

Vibrantz remains committed to ensuring our values are integrated into how we conduct business and reflected by those with whom we trade. The Vibrantz Supplier Code of Conduct is available [here](#) and Vibrantz is committed to obtaining confirmation from 80% of our key suppliers to the principles of the Supplier Code of Conduct by the end of 2026. Importantly, Vibrantz continues to partner with Ecovadis to review all Vibrantz suppliers globally in the topics of environment, labor and human rights, ethics and sustainable procurement practices. To date, our supply chain review has demonstrated that our evaluated business partners rate better than our average chemical industry peers, based on CSR maturity level. In 2024, we improved our Ecovadis Procurement score by 21% to a score of 81%. In 2024, we also became a member of the Responsible Minerals Initiative and use their platforms, processes and templates for mineral due diligence and reporting. Currently, 100% of Vibrantz suppliers have reported adherence to the Conflict Minerals Reporting Template (CMRT) and 70% of identified suppliers have reported adherence to the Extended Minerals Reporting Template (EMRT). Vibrantz is targeting 100% reporting on both templates from all suppliers by mid 2025. Starting in 2025, we will begin work on other minerals of concern in the supply chain, such as copper.



FINANCIALLY DISCIPLINED

Dedicating a balanced focus to stakeholders while also holding each other accountable for making decisions in ways that consider more than financial gain alone have synergistic effects. With our large-scale integration activities now complete, we shifted our focus in 2024 to continuous improvement initiatives worldwide. We take pride in the many ways we improved our performance during the year across many aspects of our business.

MANAGEMENT APPROACH

Our sustainable corporate strategy and long-term objectives are set and directed by our Vibrantz LT with input and influence from our board of managers. Our chief financial officer oversees the financial and budgetary functions within our strategy. Our CSR Council works closely with the finance department to identify and quantify potential financial risks associated with climate change and other environmental impacts.



FINANCIAL STRATEGY

Thanks to the commitment of our LT, the support of American Securities and our board of managers, and the hard work of our employees, we navigated another year characterized by volatility in the macro economy and most of the end-markets we serve. With large-scale integration activities behind us, we now have significant fixed-cost leverage in place due to our laser focus on continuous improvement activities and enhancing the products and service we provide to customers.

We continued to advance many of our core values to drive optimization, savings and growth in 2024:

Safety: Our year-end 2024 trailing twelve-month total recordable incident rate was 0.60. We achieved zero recordable injuries during the month of June 2024 for the first time and for 2024 our injury rate was 50% lower than 2023. We continued prioritizing safety stand-down events and focused on a five-step safety practices method (sort, straighten, shine, standardize, sustain) at our sites worldwide to prevent complacency.

Customers: We nearly met our on-time, in-full (OTIF) performance target for 2024 and surpassed it in the month of September. To help us keep driving toward world-class OTIF, our Operations team implemented Qualtrax as the system we will use moving forward to track internal and external customer complaints and drive improvement quickly.

Excellence: We began rolling out a stand-out daily safety and operational management system at our Suzhou, China, site, which we will deploy to sites worldwide in 2025 as we look to continuously improve how we consistently operate our sites.

Growth: In August, Vibrantz acquired Micro Abrasives, a leading manufacturer of calcined alumina used in auto refinishing, optics polishing and industrial lapping markets which is now part of our Advanced Materials business unit.

KEY TECHNOLOGY ADVANCEMENTS

- **Reflective pigments for improved dark plastics recycling:** We advanced NIR pigment adoption in Europe and secured new opportunities in the Americas.
- **IRR pigments for better building energy efficiency:** We expanded our portfolio and created an energy cost-saving calculator tool for customers.
- **One-of-a-kind novel tinting solution:** We began construction of our new Pearls facility in the Netherlands and secured 50+ global partners during the year.
- **Battery-grade manganese for lithium-ion batteries:** We completed our pilot program and are considering next steps.
- **Surface polishing slurries for semiconductors:** Our engineered slurries have better efficiency and performance in next-gen silicon carbide wafers than traditional silicone.
- **Energy-efficient porcelain enamels for ovens:** Our coatings for lower-temperature self-cleaning ovens reduces energy consumption and eliminates odor from incineration or harsh chemicals.
- **Low-temperature coatings for container glass:** Our 80°C coatings – much lower than traditional firing temperatures – continued positively impacting customers’ energy savings

As a privately held portfolio company of American Securities, we have chosen to maintain confidentiality and omit the disclosure of further financial goals and metrics.



OUR GROWTH FOCUS

Vibrantz continues to prioritize the advancement of products and technologies that enable us to grow our core businesses and/or reduce our own or our customers’ environmental footprint. We remain focused on commercial opportunities that align with our areas of expertise and key macro trends driving a more sustainable future for us all.

In 2024, we acquired Micro Abrasives, a leading U.S. manufacturer of calcined alumina used in auto refinishing, optics polishing and industrial lapping markets. Micro Abrasives’ products are key in the manufacture of slurries used to create wafers ultimately used in semiconductors.

We made strides in advancing many exciting project areas in 2024, including:



ADVANCED MATERIALS



BATTERY-GRADE MANGANESE SULFATE

We see a promising runway for the use of manganese in lithium-ion battery cathode chemistries as an attractive alternative to other metals like cobalt and nickel. We already produce HPMSM, which is a key input for EV batteries, in Belgium. Throughout 2024 and early 2025, we continued and completed our industrial pilot program testing the production of HPMSM for a planned capacity expansion.

- We successfully achieved a key project milestone. We:
- Published an LCA demonstrating an ultra-low carbon footprint for our current production, up to 80% lower than publicly available data for other existing and proposed HPMSM producers.
 - Improved process design using trial learnings.
 - Successfully completed the industrial pilot program.
 - Completed FEL 3 engineering for a full-scale facility. The timing of construction of a full-scale facility will be aligned to market demand and contingent on firm customer orders.



SURFACE POLISHING

The application of Vibrantz products for the steadily growing semiconductor manufacturing industry continues to be a valuable growth opportunity for us. In 2024, we enhanced the performance of our engineered slurries for the front-end process of silicon carbide microchip production in the U.S., while maintaining a decade of market leadership in Asia Pacific.

- Our 2024 milestones included:
- Conducted further testing of our acidic slurry with a valued semiconductor partner.
 - Achieved a slurry performance breakthrough yielding 99% surface usability results that unlock access to markets such as next-generation aircraft avionics.
 - Expanded global lab capacity and accelerated research into potassium permanganate-free slurries designed to reduce environmental impact.

COLOR SOLUTIONS



PEARLS SOLID-COLORANT TINTING TECHNOLOGY

The demand for sustainable, high-performing tinting solutions has never been greater. Vibrantz's Pearls innovation is the first and only volumetrically dosed tinting system of solid colorants designed for use in water-based architectural and industrial applications. Eliminating the need for stabilizers and preservatives while enhancing tinting accuracy and reducing waste, Pearls continues to be adopted by in-store tinting partners around the world. Preliminary LCA results show Pearls' potential to lower the global warming impact of tinting by over 10% compared to traditional liquid alternatives¹.

Our 2024 major milestones included:

- Began construction of the new Pearls production facility in Sittard, Netherlands.
- Secured 50+ global partners with 140 dispensers in stores and sold 40,000 liters of Pearls.



NIR PIGMENTS TO ADVANCE DARK PLASTIC RECYCLING

Traditional carbon black pigments make plastics difficult to recycle but our near-infrared pigments enable easy detection for more efficient, cost-effective recycling. We are committed to advancing this technology to help reduce plastic pollution worldwide.



IRR PIGMENTS TO IMPROVE BUILDING ENERGY EFFICIENCY

Our IRR Cool Colors technology continues to help customers reduce heat absorption and improve energy savings in coatings for roofs, home and building exteriors, and industrial applications. Throughout 2024, we strengthened our research and development initiatives, successfully expanding our portfolio with new solutions.

Significant 2024 milestones included:

- Launched Eclipse Black 372, a bluish black pigment with the market's highest IRR performance.
- Produced our first IRR pigment in Villagrán, Mexico.
- Furthered partnerships to develop a computer modeling study of energy savings in buildings.

PERFORMANCE COATINGS

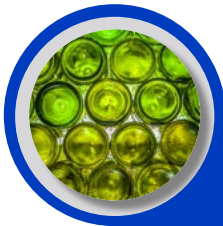


ENERGY-EFFICIENT PORCELAIN ENAMELS FOR OVENS

The growing consumer focus on energy conservation and clean living has driven the demand for sustainable home appliances. AquaRealEase®, our patented porcelain enamel coating for self-cleaning ovens, significantly reduces energy consumption and eliminates odor from incineration or harsh chemicals with a 30-minute, hot-water cleaning cycle.

In 2024, we strengthened our global partnerships and expanded our impact by:

- Securing the adoption of AquaRealEase by a major appliance OEM and partner.
- Enabling our partners to reduce manufacturing costs through new technology implementation.
- Significantly lowered self-cleaning oven temperatures for end-use customers.



LOW-TEMPERATURE COATINGS FOR CONTAINER GLASS

Traditional high-temperature glass coating processes for consumer-packaged goods and tableware use substantial energy, increasing costs and environmental impact. Our 80°C low-curing, water-based coating system is an alternative to high-temperature coatings that saves energy and drives operational efficiency. The adoption of 80°C coatings is steadily growing across glass packaging and tableware industries globally.

Our 2024 highlights included:

- A key customer adopted our solution in 25% of their production and reduced energy usage by 70% in that portion compared to their traditional manufacturing process.
- Converted several new customers to our system who integrated the low-temperature coating process into their existing facilities, significantly reducing energy usage and costs, and lowering carbon dioxide emissions and [volatile organic compounds \(VOCs\)](#) release.
- Facilitated 15 major European manufacturer trials and sampling and expanded footprint in the U.S.

¹LCA conducted in partnership with Sphera, 2025. The LCA evaluated Pearls production at our pilot-scale facility compared to similar scale production of traditional liquid tinting alternatives using Vibrantz's Temacolor W.

[PRODUCT REVIEW AND MANAGEMENT](#)

At Vibrantz, we take pride in our purpose to bring color, performance and vibrancy to life in a sustainable way. As a global manufacturer and supplier, we know that our environmental footprint cannot be disassociated from the business practices of our suppliers and trading partners. Vibrantz has launched LCA and product management initiatives to better understand the impacts of our products and review the footprint of all we touch. In 2023, we completed initial reviews of our electrolytic manganese dioxide from our Chongzuo, China, facility, and our current HPMSM at our Tertre, Belgium, facility. We also evaluated the production of manganese sulfate for agriculture (MnSO_4) at our Tampico, Mexico facility. In 2024, we launched LCAs on Pearls and ultramarine blue. We recently received preliminary results for Pearls, showing that it has a more than 10% lower global warming potential than other traditional tinting systems, depending on the specific color. We anticipate having a completed ultramarine blue LCA in mid-2025. Further information on LCAs completed and results to date are included in our Environmentally Responsible section.





ENVIRONMENT

ENVIRONMENTALLY RESPONSIBLE

ENVIRONMENTALLY RESPONSIBLE

Environmental stewardship is one of our core values and we are committed to minimizing our impacts and protecting the natural environment. In 2024 we continued to work towards our aspirations to have a favorable impact on the environment, by constantly innovating and improving our products, and enhancing our ability to use resources responsibly and efficiently. As we set out last year, climate change and biodiversity loss are two of society's greatest challenges and Vibrantz maintains our commitment to reduce our environmental impact every day. We have substantially improved our ability to measure and report on our material environmental topics while also continuing to support our customers with impactful solutions and products to today's environmental challenges and the transition away from [fossil fuels](#).

This is evidenced by the substantial improvement achieved in our latest Ecovadis score, with our environmental performance improving from 50 in 2023 to 74 in our 2024 score, evidencing the substantial improvements we have made to our processes and management actions.

We recognize that we still have improvements to make, especially in light of increasing European Union legislation (e.g., CSRD). We are proud of the progress we have made on environmental issues and remain committed to environmental stewardship as one of our core business values.



KPI PROGRESS

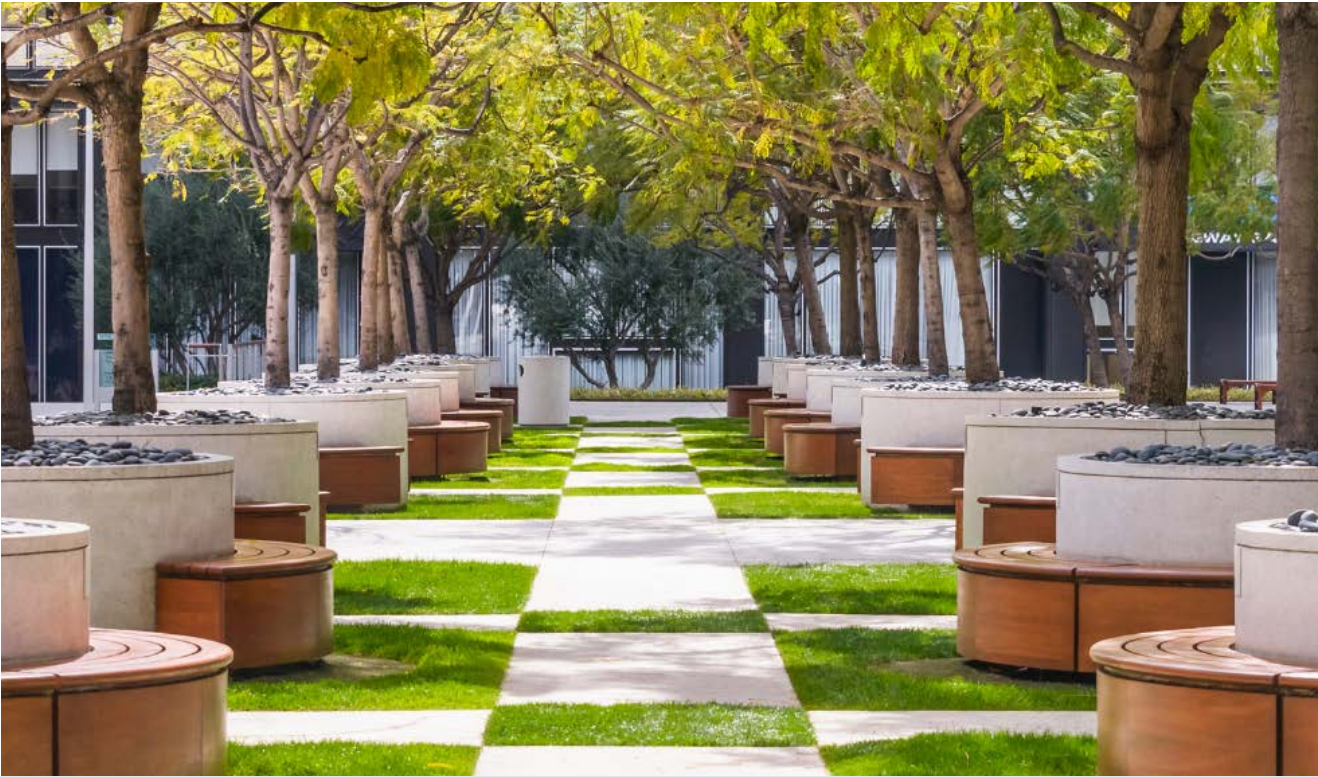
Last year, we set our first environmental KPIs (can be seen in Table 1) which demonstrated our intention to make immediate progress on our decarbonization journey while developing a longer-term strategy and underpinning targets. We have made substantial KPI progress, namely:

- Our Scope 1 and 2 emissions reduction was 13% (2023) against our 2022 baseline. This result exceeds our target of a 4% emissions reduction by 2025, with more information on the reductions and our GHG emissions reporting below.
- We have delayed the development of our long-term Scope 1 and 2 reduction target to enable us to carry out an in-depth quality assurance process for our first two years of reporting to ensure accurate data on our current and future operations. This will also allow us to review guidance, including upcoming European legislation to ensure targets set are suitable for upcoming requirements.
- We are progressing against a substantial ongoing scope of work to formalize our long-term carbon goals and management plan. This includes developing our data quality assurance processes, improved monthly reporting procedures and developing our Scope 3 roadmap, part of which is completing three priority pilot sites during 2025.

Corporate sustainability reporting guidance and requirements are constantly evolving, which can pose challenges and create opportunities for organizations. Since our formation, Vibrantz has committed to considering how our actions impact our business and surrounding communities and environment, and how we report this progress is central to our value offering. As part of our evolving CSR reporting, we will be aligning our reporting to the requirements of the EU CSRD and reviewing additional KPIs during 2025.

KPI	TARGET VALUE AND DATE	PROGRESS
Total Scope 1 and 2 emissions reduction	4% by end of 2025	13% Reduction – Ahead of target
Long-term Scope 1 and 2 reduction target set	End of 2024	Delayed
Carbon management plan and all scope targets set for high-priority sites	End of 2026	On track

Table 1 – Environmentally Responsible KPIs



CLIMATE CHANGE AND CARBON

We continue to support the [Paris Agreement](#) and actions to limit global temperature increases to well below 2°C, ideally no more than 1.5°C above pre-industrial levels, by the end of this century. Below is more detail on how we are supporting this global goal by reducing our GHG emissions, improving the measurement of our value chain impacts and continuing to invest in product innovations that support a transition to a low-carbon economy.

We have continued improving our data capture and GHG emissions reporting processes. With improvements made to our primary data capture processes in 2024, we decided to revisit our 2022 baseline as these improvements would ensure the improved accuracy of our reporting baseline with less reliance on benchmarked data, particularly for our natural gas usage for energy consumption. This update also ensures we target the most impactful areas for mitigation actions. Our previously reported baseline of 472,569 [tCO₂e](#) has now been updated to 419,146 tCO₂e. Despite the revised figures, our Scope 1 and 2 hot spots remain largely unchanged, with the majority of our Scope 1 emissions still associated with natural gas and coal.

This enhanced quality assurance process has slightly delayed delivery of our KPI to set a long-term Scope 1 and 2 reduction target, which we had intended to finalize by end of 2024. We are confident that this will be in place by the end of 2025.

When comparing our 2023 GHG emissions to the updated 2022 baseline, we have achieved significant reductions in GHG emissions. This included reductions in industrial coal (-16%), natural gas (-10%) and electricity consumption (-11%). We recognize that part of this in-year reduction was due to reduced industrial output for certain products lines which will not be replicable year on year. We will, however, continue to increase the uptake and rollout of successful mitigations and innovations across our global portfolio of production facilities to reduce emissions. These include installing energy recovery technologies, improved heating controls, better industrial process technology, and lighting and heating system efficiency measures.

EMISSIONS (tCO ₂ e)	2022 (BASELINE)	2023	2024**	MOVEMENT (COMPARED TO 2022)
Scope 1	268,708	233,453	TBC	-13%
Scope 2	150,438	132,947	TBC	-12%
Total*	419,146	366,400	TBC	-13%

* Note these totals do not include process emissions.

** 2024 data is under quality review.

In parallel with the work on our Scope 1 and 2 emissions, we are progressing data gathering to calculate our Scope 3 footprint. We have identified several priority sites for this initial assessment, while also reviewing which Scope 3 emissions categories are most efficiently reviewed at a corporate level. We expect to be able to report more detail on our initial Scope 3 emissions assessment findings in our subsequent CSR report.



SUPPORTING A TRANSITION TO LOW-CARBON SOCIETY

Many of our products are vital in supporting a global transition to a lower-carbon economy. As we focus on supporting our customers and expanding our market impact, we have taken steps to better understand the lifecycle carbon impacts of several key products. Through our CSR KPIs, we targeted the completion of six pilot product LCAs by the end of 2025 as part of a longer-term roadmap of LCAs. All six pilot projects will assess Global Warming Potential, whilst the Pearls and Ultramarine Blue will expand the LCA scope with further impact indicators.

We selected six products from across our three business units, using criteria that include:

- Key Vibrantz products in terms of volume.
- The local team’s motivation to pioneer this sustainability work.
- A focus on European facilities where product environmental data reporting and commercial requirements are more mature than other markets.



For example, our Pearls tinting technology was selected because it is a one-of-a-kind solid-colorant tinting system, is produced in Europe and is expected to generate substantial sales growth in the coming years. Pearls brings many advantages compared to existing tinting systems, including improved sustainability. We wanted to quantify the expected environmental benefits and compare them to previous technologies.

The LCA process has resulted in a range of insightful findings about the environmental challenges and benefits associated with these key products. For some products, the procured raw materials used to manufacture the relevant products represent the bulk of the carbon footprint, enabling us to identify improvements through partnering with our suppliers. In other cases, the bulk of emissions were found to be associated with our own energy intensive production processes. This means that process improvements, energy efficiency and use of renewable energy are the main levers to improve the associated carbon footprint, which closely align to our efforts (detailed above) to reduce our Scope 1 and 2 emissions.

We can also now compare our product performance against market benchmarks. For example, we were able to confirm that the manganese chemicals produced in our Tertre, Belgium, facility have a very low carbon footprint, up to 80% lower than publicly available data for competitor products. This is thanks to our unique, highly efficient production process.

The goal now is to pick up the pace. There is a strong commercial need to provide more carbon footprint data, particularly in Europe. We produce tens of thousands of products so it will take time to analyze all of them, but we are looking to accelerate the pace by developing in-house capabilities, training additional experts, engaging proactively with our suppliers and potentially looking at more automated LCA solutions in the longer term.

AIR QUALITY (NON GHGs)

The management, reduction and removal of pollutants is also a key part of existing compliance processes in effect across our sites. This includes air pollutant emissions such as [nitrogen oxides \(NOX\)](#), [sulfur oxides \(SOX\)](#) and VOCs. Despite the mitigations we have in place, some residual emissions are produced through our industrial processes. While we continue to review ways to minimize emissions, our current emissions are all within compliant levels, aligned to location-specific permits and environmental regulations in the locations we operate.

WASTE AND CIRCULAR ECONOMY

As an organization, we process huge quantities of materials to produce products our customers rely on. We are working to reduce waste from our operations and products, in turn minimizing carbon emissions, improving resource efficiency, reducing pollution and supporting our customers with their environmental goals. We aim to achieve this through identifying opportunities to reuse or recycle materials in our production processes and limit the potential for waste materials in the lifecycle of our portfolio.

Accurate and reliable data on our waste streams and waste management processes is essential to demonstrating our performance in this area. We are currently conducting quality assurance on waste data collected over 2023 and 2024. Since this process is ongoing, we will not be reporting quantitative metrics at this time, however, an updated version of this report, including the results of this assessment, will be published later in 2025.



2023 TOTAL WATER USED (m³)

2,815,040.42

WATER AND WASTEWATER MANAGEMENT

Water is a vital global resource we depend on in our business operations. It is important that we reduce our water usage where possible, particularly in areas of high water stress, to protect water resources for the resilience of our business, communities and the environment. To enable this, we are making efforts to improve our data collection at a site level to underpin our company-wide performance and future management actions. We are in the process of further quality assurance and improvements for our 2024 data, which will be updated and published in later reports.

In 2023, 36% of our water use was associated with sites of high or extremely high risk in regard to water stress (as identified by World Research Institutes Aqueduct Water Risk Atlas). This presents an important challenge for our business, where we need to recognize the developing environmental and regulatory landscape which could affect the resilience of some freshwater supplies. We are currently developing further mitigation strategies and also targeting key sites to focus our development of water efficiency measures.

Meanwhile, we continue to implement innovative solutions to increase efficiency in our water use and to reduce wastewater discharge wherever possible across our portfolio. In 2024, these innovations included water reuse projects, improved water purification processes and the replacement of chemical additives with organic compounds.

LEVEL OF WATER STRESS (WRI Aqueduct)	NUMBER OF SITES	% WATER USE
Low risk	11	35.3%
Low-medium risk	16	22.8%
Medium-high risk	18	5.7%
High risk	6	1.6%
Extremely high risk	14	34.6%

NATURE AND BIODIVERSITY

Vibrantz recognizes the importance of maintaining healthy, natural ecosystems for the resilience of our operations, value chain, overall health and well-being, and climate change adaptation. We strive to work in ways that help halt and reverse nature loss.

Following our initial biodiversity risk screening exercise in 2023, which used specialized tools such as Encore and the World Wildlife Federation’s Biodiversity Risk Filter, we have maintained our position on the most material nature-related impacts and dependencies facing our business and how we mitigate them. These potential impacts include pollution (water, soil or air) and GHG emissions, while most likely dependencies include water availability and climate regulating services. In support of this, in 2024 we continued to take the following actions to ensure we mitigate impacts and build resilience around dependencies:

- Reduce our GHG emissions where feasible: We have reduced Scope 1 and 2 emissions by 13% since 2022.
- Maintain effective pollution control and compliance processes: No compliance issues occurred on water, air or soil pollution, as evidenced by Ecovadis 360° Watch Findings.
- Increase water efficiency, particularly in water-scarce areas: We have assessed which sites are located in areas of high or extremely high risk of water stress and will prioritize water efficiency measures for those sites.

During 2025, we will undertake an updated assessment of our nature-related impacts, dependencies, risks and opportunities. This assessment will first be undertaken for all sites that fall under CSRD reporting requirements. This assessment will screen for potential impacts and dependencies in our value chain and identify all sites in close proximity to biodiversity-sensitive areas.



SOCIAL

SOCIALLY CONNECTED

SOCIALLY CONNECTED

In 2024, we made significant strides in shaping a culture that empowers individuals, fosters well-being and drives lasting success. With our large-scale integration process behind us, we shifted our focus to optimizing systems that best support our employees, ensuring they feel valued, connected and inspired.

In an increasingly dynamic and unpredictable market, we recognized the need to evolve our social initiatives to better enable our employees to be involved in workplace celebrations and community events while also balancing the demands of everyday work and the need to continually adapt to change. By refining our approach, we struck the right balance that encouraged participation and sustained enthusiasm and long-term impact.

We continued to shape our approach through ongoing feedback. For example:

- We conducted a multi-session focus group with our global Belonging committee – comprised of 15 individuals across our three operating regions that represent their respective function, business segment or region – and gathered input that became our Belonging mission and vision statement.
- We surpassed our goal of 40% employee participation in the VIA program, reaching 41% through continued participation in our annual 5K event, reinforcing our commitment to employee health and wellness. In addition, teams across our global sites gave back by volunteering within their local communities.
- We collected insights from employee involvement committees (EICs) worldwide to refine and streamline our VIA plans for 2025.

Our people are the driving force behind everything we do—fueling our commitment to develop, reward and retain talent while working together to bring our core purpose to life every day.

IMELDA TORRES-LABORDE, EVP AND CHIEF HUMAN RESOURCES OFFICER

LISTENING, CONNECTION AND GROWTH

In 2024, we built on our foundation of delivering excellence to our customers and enhancing workplace safety by shifting our focus to continuous improvement in all we do. To support a continuous improvement mindset, we dedicated significant focus to enriching the unique corporate culture we have created by elevating the workplace experience for our valued employees.

ENGAGING EMPLOYEES

By the end of 2024, all of our sites had an active EIC in place and were organizing recurring events to foster team building, employee appreciation and community engagement. These committees play a vital role in how we collectively execute our VIA philanthropy program, celebrate regional diversity and strengthen our six shared company values.

We continued to listen to employee feedback regarding the challenge of juggling many work priorities with the desire to also participate in philanthropic activities and local teambuilding events. In December 2024, we conducted a survey among our global EICs and learned:

- Monthly cadence of local events could be streamlined to balance work and togetherness.
- Themes of most interest included our 5K event, belonging and community giving.
- Sites want to engage with others via one online sharing platform during global events.

We plan to continue considering all feedback and tailoring our approach in 2025 to enable employees to share and celebrate collectively multiple times a year.

EICs are bringing our teams together in meaningful ways, creating opportunities for collaboration, recognition and community impact. With nearly all our sites engaged, these committees are helping to bridge cultures, strengthen connections and reinforce the values that unite us as one global team.

SHINY PING, VP, HUMAN RESOURCES, APAC



COMMUNITY IMPACT AND PHILANTHROPY

VIA is the program through which our employees celebrate each other as we live out our values and give back to the cities and towns where we operate. Each quarter, VIA brings employees together around key themes and events and, since its launch, our sites have tailored their approach to giving back, ensuring their philanthropic efforts reflect both local community needs and Vibrantz’s core values.

A few 2024 VIA highlights included:

- Over 40% of employees across 26 countries joined our third annual virtual 5K event, enabling us to exceed our participation goal for 2024.
- Our Houston, Texas, team hosted an Earth Day meditation, followed by a seed planting around the office.
- Employees at our Americana, Brazil, location collected emergency supplies for flood victims in Rio Grande do Sul, Brazil.
- Employees at our Ayutthaya, Thailand, facility distributed fresh fruits and vegetables to animals at a local wildlife rescue center.
- Our Netherlands sites hosted a holiday fundraiser, raising €2,500 that was donated along with toys to a local children’s shelter.
- Employees at our Kütahya, Turkey, facility hosted chemistry students, showcasing our Performance Coatings business and inspiring future innovators in the fields of science, technology, engineering and mathematics.

As mentioned, we will use employee feedback to further promote participation moving forward.

BELONGING

An inclusive environment where people feel they truly belong is foundational at Vibrantz. We recognize our responsibility to cultivate a safe work environment that positively impacts our employees as individuals, our reputation as a trusted employer and supplier, and the communities where we operate.

Our commitment to belonging is reflected in the programs and initiatives we develop to ensure every employee has the opportunity to thrive. A key driver behind this effort is our Stakeholder Impact Committee, which focuses on – among other things – helping Vibrantz attract, retain, support and develop talent, while celebrating the shared values and unique backgrounds that make our workforce strong.

In 2024, we took these meaningful strides:

- Conducted an extensive employee survey and multiple focus groups to shape the foundation of our Belonging strategy.
- Developed a formal definition of what “Belonging” means to us, and our own Belonging mission and vision statements.
- Introduced a global calendar highlighting key celebrations and traditions across our workforce in the three regions where we operate.
- Launched newsletter and town hall recognition programs to celebrate belonging and employee achievements.
- Hosted fireside chats and other engagement events to foster open dialogue and inclusivity.

Through these initiatives, we continued to build a workplace where diverse perspectives are valued, voices are heard and employees feel a sense of belonging in each one of our offices worldwide.



EMPLOYEE PERFORMANCE AND TALENT DEVELOPMENT

In 2024, we strengthened our commitment to developing a high-performing, engaged workforce by enhancing our performance management system and investing in leadership growth. A key milestone was the introduction of a five-tier rating scale, providing clearer performance insights and more opportunities for professional development.

We also focused on bolstering our foundational talent and performance efforts in this space by:

- Solidifying our performance management framework to align employee growth with business objectives through use of our HR information system and employee training. We refined goal-setting practices, streamlined performance conversations and implemented more consistent calibration discussions across business units. These efforts helped ensure alignment between individual contributions and organizational priorities while fostering a culture of continuous feedback and accountability.
- Enhancing leadership capabilities specifically for operational and front-line managers through structured team development and targeted training in the areas of safety and leadership. We launched and expanded leadership development initiatives across the Operations and Commercial organizations. These included executive leadership training for senior leaders focused on strategic decision-making, change leadership and management excellence training for people leaders, designed to build core competencies and ensure a safety-first mindset. These programs supported leaders at all levels by driving clarity, engagement and results within their teams.
- Building cohesive, high-trust teams through transparency, accountability and collaboration.

“Our greatest asset is the talented workforce we employ to drive high performance. We are dedicated to attracting the best talent with the skills that are suited for the work we do, helping our customers achieve success.”

RASHAAD RASBERRY, DIRECTOR OF TALENT ACQUISITION AND INCLUSIVE PROGRAMMING

Key 2024 highlights included:

- Strengthening leadership development through Management Excellence Training (MET), including “Leading with Safety,” executive coaching and frontline leadership programs.
- Embedding a competency framework that aligns with business needs, ensuring leadership expectations are clear and measurable.
- Enhancing performance conversations by equipping managers with tools and training to provide meaningful feedback and set clear development goals.
- Increasing engagement through a more structured feedback process, reinforcing a culture of continuous improvement.

Looking ahead to 2025, these programs will remain central to ensuring Vibrantz remains a place where employees thrive, innovate and drive meaningful impact.



As we conclude our second CSR report, we celebrate another milestone in our journey toward becoming an enduring and sustainable world-class specialty chemicals and materials company. Our progress in 2024 highlights the collective efforts and commitment from all 4,000 members of our organization. As we continue our journey in 2025, we are prioritizing opportunities that enable us to continue to embed a sustainable mindset into our operations and grow our impact for customers, lenders, consumers and the communities where we live and work. Now more than ever, our shared belief that “we are the best versions of ourselves when we are positively impacting others” remains a beacon for us at Vibrantz. We have done and will continue to do what is right for our stakeholders and the long-term success of our business.

Follow our CSR initiatives, community partnerships and impactful projects at www.vibrantz.com/CSR and stay connected with us on LinkedIn as we impact our world by bringing color, performance and vibrancy to life.

APPENDIX

Please see below a comparison between our updated 2022 GHG emissions (baseline year) and 2023 GHG emissions.

SCOPE	EMISSIONS SOURCE CATEGORY	EMISSIONS BY ACTIVITY	tCO ₂ e			
			2022	2023	CHANGE	% CHANGE
1	Heating and fuels	Natural gas	146,307	132,351	-13,956	-10%
		Gas oil	174	453	+280	+161%
		Propane	4,110	2,988	-1,122	-27%
		Heating oil	115	353	+238	+206%
		Petrol	163	98	-65	-40%
		Diesel	1,513	1,836	+323	+21%
		Coal (industrial)	106,674	89,444	-17,230	-16%
		Petroleum coke	8,591	3,482	-5,109	-59%
		Acetilene	-	0.2	-	-
	Refrigerant gasses	R410A	652	1,164	+511	+78%
		R22	238	960	+722	+303%
		R407c	136	41	-94	-70%
		R32	27	251	+224	+836%
		R134a	8.4	32	+24	+280%
2	District heating	Imported steam	8,050	6,547	-1,503	-19%
	Electricity consumption	Electricity (market)	142,388	126,400	-15,987	-11%
		Electricity (location)	140,416	133,621	-6,795	-5%
TOTAL GHG EMISSIONS (MARKET-BASED)			419,146	366,400	-52,746	-13%
TOTAL GHG EMISSIONS (LOCATION-BASED)			417,175	373,621	-43,554	-10%
Average tCO ₂ e per ton of product prduced		Color Solutions	0.10	0.02	-0.08	-80%
		Advanced Materials	0.42	0.63	+0.21	+50%
		Performance Coatings	0.34	0.29	-0.05	-15%



SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB) INDEX

SASB TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	METRIC CODE	PROPOSED REPORT SECTION
Greenhouse gas emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO -e, ₂ Percentage (%)	RT-CH-110a.1	Scope 1 emissions during 2023 were 233,453 tCO ₂ e, a 13% reduction compared to the 2022 baseline (268,708 tCO ₂ e). The Vibrantz 2022 baseline and 2023 emissions calculations do not include process emissions. 0% of these emissions are under emission-limiting regulation. For further information on our greenhouse gas emissions and plans to decarbonize our operations please see page 29 of our 2024 CSR report.
	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and analysis	N/A	RT-CH-110a.2	Please see page 29 of our 2024 CSR report.
Air quality	Air emissions of the following pollutants: (1) NOX (excluding N ₂ O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	Quantitative	Metric tons (t)	RT-CH-120a.1	We continuing to collate and analyze data underpinning non-GHG air emissions, with the aim to report quantitative metrics on air quality in future reports. For more information please see page 31 of our 2024 CSR report.
Energy management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable and (4) total self-generated energy ¹	Quantitative	Gigajoules (GJ), Percentage (%)	RT-CH-130a.1	Please find detail on total energy consumed in Appendix covering Scope 1 and 2 GHG Emissions.
Water management	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic metres (m ³), Percentage (%)	RT-CH-140a.1	Please see page 31 of our 2024 CSR report for our 2023 water usage information. We are currently reviewing our 2024 information which will be published in later in FY 2025/26 in an addendum of the 2024 CSR Report.
	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Quantitative	Number	RT-CH-140a.2	We aim to include information on this in future CSR reports.
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and analysis	N/A	RT-CH-140a.3	Please see page 31 of our 2024 CSR report.

SASB TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	METRIC CODE	PROPOSED REPORT SECTION
Hazardous waste management	Amount of hazardous waste generated, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	RT-CH-150a.1	We are in the process of improving our waste management data processes with the intention to report this in future CSR reports.
Community relations	Discussion of engagement processes to manage risks and opportunities associated with community interests	Discussion and analysis	N/A	RT-CH-210a.1	Please see page 35 of our 2024 CSR report.
Workforce health & safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	Rate	RT-CH-320a.1	Please see an update on our TRIR targets on page 17 of our 2024 CSR report. For more information on our Health and Safety management and targets please see page 20 of our 2024 CSR Report.
	Description of efforts to assess, monitor and reduce exposure of employees and contract workers to long-term (chronic) health risks	Discussion and analysis	N/A	RT-CH-320a.2	Please see page 20 of our 2023 CSR Report.
Product design for use-phase efficiency	Revenue from products designed for usephase resource efficiency	Quantitative	Presentation currency	RT-CH-410a.1	We do not currently track this quantitative data. For more information on our value creating products, which include improvements to usephase resource efficiency, please see pages 23-26.
Safety & environmental stewardship of chemicals	(1) Percentage of products that contain Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	Quantitative	Percentage (%) by revenue, Percentage (%)	RT-CH-410b.1	We do not currently track this quantitative data, however we planned to include in future CSR Reports.
	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	Discussion and analysis	N/A	RT-CH-410b.2	We aim to include information on this in future CSR Reports.
Genetically modified organisms	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Quantitative	Percentage (%) by revenue	RT-CH-410c.1	We do not currently track this quantitative data, however we planned to include in future CSR Reports.
Management of the legal & regulatory environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion and analysis	N/A	RT-CH-530a.1	From late 2024 Vibrantz are in the process of rolling out Libryo as our central point of reviewing and reporting compliance. This will be in place for all active manufacturing sites by Q1 2026.
Operational safety, emergency preparedness & response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	Quantitative	Number, rate	RT-CH-540a.1	We do not currently track this quantitative data, however we planned to include in future CSR Reports.
	Number of transport incidents	Quantitative	Number	RT-CH-540a.2	We do not currently track this quantitative data, however we planned to include in future CSR Reports.



GLOBAL REPORTING INITIATIVE (GRI) INDEX

GRI STANDARD	GRI DISCLOSURE	VIBRANTZ DISCLOSURE
GRI 2: GENERAL DISCLOSURES		
ORGANIZATION AND REPORTING PRACTICES		
2-1	Organizational details	CSR 2024 Report: 'About Vibrantz And This Report' – page 2; 'Ethically Centered – Governance' – pages 18-19; 'Vibrantz at a Glance' – page 5; Vibrantz Website: https://vibrantz.com/our-company/global-locations/
2-2	Entities included in the organization's sustainability reporting	CSR 2024 Report: 'About Vibrantz and this Report' – page 2
2-3	Reporting period, frequency and contact point	CSR 2024 Report: 'About Vibrantz and this Report' – page 2
2-4	Restatements of information	Please see comments on updated 2022 GHG emissions baseline reported in CSR 2024 Report: 'Environmentally Responsible – Climate and Carbon' – page 29. This update improves the accuracy of our GHG reporting and management actions.
2-5	External assurance	See the following CSR 2024 Report sections for references to external assurance: 'A message from Vibrantz CFO Michael Turner' – page 3; 'Our CSR Journey' – page 14
ACTIVITIES AND WORKERS		
2-6	Activities, value chain and other business relationships	CSR 2024 Report: 'About Vibrantz and this Report' – page 2; 'Vibrantz Minerals Value Chain' – page 8; 'Vibrantz Batteries Value Chain' – page 9; 'Vibrantz Electronics and Surface Technologies Value Chain' – page 10; 'Vibrantz Functional Coatings Value Chain' – page 11

2-7	Employees	~4,000 employees worldwide (as of 2024) ; CSR 2024 Report: 'About – Vibrantz at a Glance' – page 5
GOVERNANCE		
2-9	Governance structure and composition	CSR 2024 Report: 'Ethically Centered – Governance' – pages 18-19
2-10	Nomination and selection of the highest governance body	CSR 2024 Report: 'Ethically Centered – Governance' – pages 18-19
2-11	Chair of the highest governance body	CSR 2024 Report: 'Ethically Centered – Governance' – pages 18-19
2-12	Role of the highest governance body in overseeing the management of impacts	CSR 2024 Report: 'Ethically Centered – Governance' – pages 18-19; 'Our CSR Council' – page 13
2-13	Delegation of responsibility for managing impacts	CSR 2024 Report: 'Ethically Centered – Governance' – pages 18-19; 'Financially Disciplined – Management Approach' – page 22; 'Our CSR Council' – page 13 Senior execs and other employees are able to report back to the board on the management of any impacts at the quarterly board meetings.
2-14	Role of the highest governance body in sustainability reporting	CSR 2024 Report: 'Ethically Centered – Governance' – pages 18-19; 'Our CSR Council' – page 13 This report, the previously completed materiality assessment and all relevant CSR KPIs have been reviewed and approval by the Vibrantz board.
2-15	Conflicts of interest	CSR 2024 Report: 'Ethically Centered – Governance' – pages 18-19

GRI STANDARD	GRI DISCLOSURE	VIBRANTZ DISCLOSURE
2-16	Communication of critical concerns	CSR 2024 Report: 'Ethically Centered - Governance' - pages 18-19
2-17	Collective knowledge of the highest governance body	The company has quarterly scheduled Board of Managers meetings and sustainability KPIs and updates are provided periodically for review and, where appropriate, approval.
STRATEGY, POLICIES AND PRACTICES		
2-22	Statement on sustainable development strategy	CSR 2024 Report: 'A message from Vibrantz CFO Michael Turner' - page 3; 'Our CSR Council' - page 13; 'Our CSR Journey' - page 14; 'Materiality Assessment' - page 15; 'Sustainable Development Goals' - page 16
2-23	Policy commitments	CSR 2024 Report: Please see 'Ethically Centered - Vibrantz Leadership Team' - page 19 for overview of approval process. For further detail, please refer to Vibrantz's 'Policies and procedures' documents, available below at: Sustainable Policy Statement Supplier Code of Conduct Sustainable Procurement Policy Code of Ethics
2-24	Embedding policy commitments	'Please see 'Responsible corporate citizen' and 'Legal' sections on Vibrantz's website, as well as the policies and procedures documents. Supplier Code of Conduct Sustainable Procurement Policy Code of Ethics
2-26	Mechanisms for seeking advice and raising concerns	The Vibrantz Ethics Hotline is in place to allow individuals to confidentiality report any matters that are believed to be in violation of Vibrantz Standards. Further information is available on the 'Legal' section of the Vibrantz website and is linked below: Ethics Hotline
2-28	Membership associations	Please see list of industry associations which Vibrantz participates in below: Cookware and Bakeware Alliance (CBA) National Glass Association (NGA) International Enamellers Congress Porcelain Enamel Institute (PEI) International Meganese Institute American Coatings Association American Composites Manufacturers Association Chemical Pigments Manufacturers Association Canadian Paint and Coatings Association Center for the Polyurethanes Industry Leather Working Group SPE Top Con United Nations Global Compact Responsible Materials Initiative

STAKEHOLDER ENGAGEMENT

2-29	Approach to stakeholder engagement	CSR 2024 Report: 'A message from Vibrantz CFO Michael Turner' - page 3; 'Materiality Assessment' - page 15; 'Financially Disciplined' - page 22; 'Listening, Connection and Growth' - page 34; 'Belonging' - page 35
		Below is a list of locations where 100% of union members are covered by collective bargaining agreements:
2-30	Collective bargaining agreements	Dandenong, Australia Maastricht, Netherlands Sittard, Netherlands Lockland, Ohio Vantaa, Finland China Belgium Germany Brazil Argentina, FPMA Columbia Villagran, Mexico Orrville, Ohio Cleveland, Ohio Baltimore, Maryland Quincy, Illinois New Johnsonville, Tennessee Tampico, Mexico Works Councils are also present in Belgium, France, Germany and Spain.

MATERIAL TOPICS

3-1	Process to determine material topics	Vibrantz's methodology for our materiality assessment aligned with best practice guidance from the International Sustainability Standards Board (ISSB) and Global Reporting Initiative (GRI). For more information, see: CSR 2024 Report: 'Materiality Assessment' - page 15
3-2	List of material topics	CSR 2024 Report: 'Materiality Assessment' - page 15
3-3	Management of material topics	The various materiality topics identified in the materiality assessment and relevant management actions are addressed throughout the three core sections of this report, Governance , Environment and Social . Further summaries of commitments, actions and targets can be found in: 'Sustainable Development Goals': - page 16; 'Our Scorecard' - page 17.

GRI STANDARD	GRI DISCLOSURE	VIBRANTZ DISCLOSURE																												
TOPIC STANDARDS																														
ECONOMIC PERFORMANCE																														
201- Economic Performance 2016																														
201-1	Direct economic value generated and distributed	CSR 2024 Report: 'A message from Vibrantz CFO Michael Turner' - page 3; 'Vibrantz at a Glance' - page 5; 'Financially Disciplined - Financial Strategy' - page 22																												
205- Anti-Corruption 2016																														
205-2	Communication and training about anti-corruption policies and procedures	100% of Vibrantz employees have been issued trained on the Vibrantz Code of Ethics. The Vibrantz Code of Ethics																												
ENVIRONMENTAL TOPICS																														
303- Water and Effluents 2018																														
303-1	Interactions with water as a shared resource	CSR 2024 Report: 'Environmentally Responsible - Water and Wastewater Management' - page 31																												
304- Biodiversity 2016																														
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	CSR 2024 Report: 'Environmentally Responsible - Nature and Biodiversity' - page 32																												
		During the screening exercise carried out in 2023, 11 sites identified within close proximity to protected areas and 2 within close proximity to Key Biodiversity Areas. Since this analysis several relevant sites were closed, remaining sites are listed below: <table> <tr> <th>Site</th><th>Country</th><th>Operations</th></tr> <tr> <td>Ayutthaya</td><td>Thailand</td><td>Manufacturing</td></tr> <tr> <td>Benicarlo</td><td>Spain</td><td>Manufacturing</td></tr> <tr> <td>Guara Oxidry</td><td>Brazil</td><td>Manufacturing</td></tr> <tr> <td>Johannesburg</td><td>South Africa</td><td>Manufacturing</td></tr> <tr> <td>Llodio</td><td>Spain</td><td>Manufacturing</td></tr> <tr> <td>Maastricht</td><td>Netherlands</td><td>Manufacturing</td></tr> <tr> <td>Sittard</td><td>Netherlands</td><td>Manufacturing</td></tr> <tr> <td>Taoyuan</td><td>Taiwan</td><td>Manufacturing</td></tr> <tr> <td>Tsukuba</td><td>Japan</td><td>Manufacturing</td></tr> </table>	Site	Country	Operations	Ayutthaya	Thailand	Manufacturing	Benicarlo	Spain	Manufacturing	Guara Oxidry	Brazil	Manufacturing	Johannesburg	South Africa	Manufacturing	Llodio	Spain	Manufacturing	Maastricht	Netherlands	Manufacturing	Sittard	Netherlands	Manufacturing	Taoyuan	Taiwan	Manufacturing	Tsukuba
Site	Country	Operations																												
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Sittard	Netherlands	Manufacturing																												
Taoyuan	Taiwan	Manufacturing																												
Tsukuba	Japan	Manufacturing																												
304-2	Significant impacts of activities, products and services on biodiversity	CSR 2024 Report: 'Environmentally Responsible - Nature and Biodiversity' - page 32																												
		Vibrantz have completed an initial screening assessment of potential biodiversity impacts and have identified several target areas to mitigate potential impacts including reducing GHG emissions, ensuring effective pollution management, and prioritising water efficiency measures in water scarce operational areas.																												

305- Emissions 2016		
305-1	Direct (Scope 1) GHG emissions	233,453 tCO ₂ e (tons of carbon dioxide equivalent) in 2023
		Further details are shown in 2024 CSR Report: 'Environmentally Responsible - Climate Change and Carbon' - page 29; 'Appendix XX - GHG Emissions'
305-2	Energy indirect (Scope 2) GHG emissions	132,947 tCO ₂ e in 2023
		Further details are shown in 2024 CSR Report: 'Environmentally Responsible - Climate Change and Carbon' - page 29; 'Appendix XX - GHG Emissions'
305-2	Reduction of GHG emissions	Scope 1 and 2 GHG emissions reduced by 52,746 tCO ₂ e (13%) from 2022 to 2023. For more information please see 2024 CSR Report: 'Environmentally Responsible - Climate Change and Carbon' - page 29
306 - Waste 2020		
306-1	Waste generation and significant waste-related impacts	CSR 2024 Report: 'Environmentally Responsible - Waste And Circular Economy' - page 31
306-2	Management of significant waste-related impacts	CSR 2024 Report: 'Environmentally Responsible - Waste And Circular Economy' - page 31
308 - Supplier Environmental Assessment		
308-1	New suppliers that were screened using environmental criteria	As part of our KPI to complete Ecovadis supply chain assessments, including environmental criteria, for our three business units and three operating regions by the end of 2025 we have assessed 212 new suppliers during 2024. Once this exercise is complete we will report on percentages of new suppliers covered in each year.
308-2	Negative environmental impacts in the supply chain and actions taken	CSR 2024 Report: 'Ethically Centered - Supply Chain' - page 21
SOCIAL TOPICS		
403 - Occupational Health & Safety 2018		
403-1	Occupational health & safety management system	CSR 2024 Report: 'Ethically Centered - Safety' - Page 20
403-2	Hazard identification, risk assessment and incident investigation	CSR 2024 Report: 'Ethically Centered - Safety' - Page 20
403-3	Occupational health services	CSR 2024 Report: 'Ethically Centered - Safety' - Page 20

GRI STANDARD	GRI DISCLOSURE	VIBRANTZ DISCLOSURE
403 – Occupational Health & Safety 2018		
403-4	Worker participation, consultation and communication on occupational health and safety	CSR 2024 Report: 'Ethically Centered – Safety' – Page 20
403-5	Worker training on occupational health and safety	CSR 2024 Report: 'Ethically Centered – Safety' – Page 20
403-6	Promotion of worker health	All US employees receive health benefits through Empyrean and 401k through Empower. Employee Assistance Programs are available through Optum which includes EAP and Worklife services.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	CSR 2024 Report: 'Ethically Centered – Safety' – Page 20
403-8	Workers covered by an occupational health and safety management system	All Vibrantz employees are covered by internal EHS systems which have been developed in line with OSHA standards.
403-9	Work-related injuries	0 fatalities occurred as a result of work-related injury. For more information on our management of health and safety please see CSR 2024 Report: 'Ethically Centered – Safety' – Page 20.
404 – Training and Education 2016		
404-2	Programs for upgrading employee skills and transition assistance programs	CSR 2024 Report: 'Ethically centered – Vibrantz Leadership Team' – page 19; 'Ethically centered – Safety' – page 20; 'Ethically centered – Business Ethics' – page 21; 'Socially Connected – Employee performance and talent development' – page 36
408 – Child Labour 2016		
408-1	Operations and suppliers at significant risk for incidents of child labor	Code of Ethics Supplier Code of Conduct CSR 2024 Report: 'Ethically Centered – Supply Chain' – page 21

409 – Forced or Compulsory Labor 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Code of Ethics Supplier Code of Conduct CSR 2024 Report: 'Ethically Centered – Supply Chain' – page 21
413 – Local Communities 2016		
413-1	Operations with local community engagement, impact assessments, and development programs	CSR 2024 Report: 'Socially Connected – Community impact and philanthropy' – page 35
414 – Supplier Social Assessment 2016		
414-1	New suppliers that were screened using social criteria	As part of our KPI to complete EcoVadis supply chain assessments, including social criteria, for our three business units and three operating regions by the end of 2025 we have assessed 212 new suppliers during 2024. Once this exercise is complete we will report on percentages of new suppliers covered in each year.
414-2	Negative social impacts in the supply chain and actions taken	CSR 2024 Report: 'Ethically Centered – Supply Chain' – page 21
416 – Customer Health & Safety 2016		
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	The number of incidents of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services within 2024 was 0 (zero).



VIBRANTZ CSR KEY TERMS

Biodiversity

Refers to the variety of living species on Earth or in a particular habitat, including animals, plants, fungi and bacteria. Biodiversity loss refers to the decline or disappearance of biological diversity; it can refer to many scales, from global extinctions to population extinctions.

Circular economy

Circular economy describes an economic model aimed at minimizing waste and making the most of resources. It involves designing products and systems to be regenerative and restorative, ensuring that materials are reused, recycled, or repurposed to keep them in circulation for as long as possible. This approach aims to minimise emissions, improve resource efficiency and increase the sustainability of consumption.

Climate change

Climate change refers to long-term shifts in temperatures and weather patterns, which can be natural or anthropogenic. Anthropogenic climate change is the human-driven impact on the Earth's climate directly linked to the amount of fossil fuels burned, aerosol releases and land alteration from agriculture and deforestation.

Corporate social responsibility (CSR)

CSR is a management concept whereby a company is mindful of its responsibilities within society and is socially accountable to itself, its stakeholders and the public. At Vibrantz, being a responsible corporate citizen means we are keenly focused on enriching our culture, businesses, communities and the planet as vital components of our work.

Environmental health and safety (EHS)

EHS encompasses a wide range of issues relating to the protection of people as well as the environment. EHS management systems are designed to minimize or eliminate risks associated with the exposure to hazardous materials, work-related injuries and environmental accidents.

Environmental, social and governance (ESG) issues

This term refers to a set of criteria used to evaluate a company's operations and performance in terms of sustainability and societal impact. It is important to address and manage these ESG issues to ensure long-term value creation and risk mitigation.

Environmental footprint (also known as an ecological footprint)

This term describes the effect that a person, company and/or activity has on the environment. For example, the amount of natural resources that a company uses and the amount of harmful gases produced.

Forever chemicals

Also known as PFAS, forever chemicals are a group of thousands of human-made substances. They are persistent, nearly impossible to destroy and have been found everywhere; in rainwater, soil, wildlife and humans. They are also toxic at extremely low levels, and can pose health risks.

Fossil fuels

A hydrocarbon fuel such as coal or gas, which was formed from decomposing plants and animals in the Earth's crust over millions of years. When burned or combusted, they release energy in the

Greenhouse gas emissions (GHGs)

GHGs are gases in the Earth's atmosphere that trap heat by absorbing infrared radiation emitted from the surface and reradiating it back, contributing to the greenhouse effect. Human activities, such as burning fossil fuels and deforestation, contribute to the increased concentration of these gases, leading to a warming of the Earth's surface. The seven GHGs covered under the Kyoto Protocol are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). When reported by an organization, these are usually reported as a combined 'carbon footprint'.

- Scope 1: Direct GHG emissions that occur from sources controlled or owned by an organization.
- Scope 2: Indirect GHG emissions generated from the generation of purchased energy such as electricity, steam, heat or cooling.
- Scope 3: Indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

Life cycle assessment (LCA)

The systematic analysis of the potential environmental impacts of products or services during their entire life cycle.

Hazardous air pollutants (HAPs)

A group of pollutants with the potential to cause negative health and environmental effects. They include a mixture of toxic chemicals emitted into the air from industrial processes, combustion sources and other human activities. HAPs can have serious health impacts, including cancer, respiratory problems and neurological disorders. It is important that they are reported and regulated in accordance with environmental guidelines.

Nitrogen oxides (NOx)

A group of highly reactive gases composed of nitrogen and oxygen molecules. They are primarily produced via combustion processes, for example those occurring in vehicles, power plants and industrial facilities. NOx emissions contribute to air pollution and can lead to the formation of smog, acid rain and respiratory issues.

Non-GHG emissions (Air Quality)

Airborne pollutants released into the atmosphere that do not contribute to the greenhouse effects. These emissions include oxides of sulfur (SOx), volatile organic compounds (VOCs), heavy metals, fine particulate matter and chlorofluorocarbons. Air pollution can directly effect human health, habitats and biodiversity. These gases can combine in the atmosphere to form ozone, a harmful air pollutant and greenhouse gas. Dust and odor can also be a concern to local communities.

Paris Agreement

A legally binding international treaty on climate change, adopted by 196 parties at the UN Climate Change Conference (COP 21) in Paris on December 12, 2015. The landmark agreement aims to maintain the increase in the global average temperature to well below 2°C above pre-industrial level and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. In recent years, world leaders have emphasized the need to limit global warming to 1.5°C by the end of this century.

Sulfur oxides (SOx)

A group of chemical compounds containing sulfur and oxygen atoms. They are primarily emitted into the atmosphere through the combustion of fossil fuels, especially those containing sulfur impurities, such as coal and oil. SOx can contribute to air pollution, acid rain formation and respiratory problems, posing risks to both human health and the environment.

Sustainable procurement

The integration of CSR principles into a company's procurement processes and decisions, while ensuring they meet stakeholder requirements. It involves the strategic and responsible acquisition of goods and services, considering environmental, social and economic factors. The aim is to minimize potential negative impacts, promote ethical practices, and contribute to long-term environmental and societal well-being throughout the supply chain.

Tons of carbon dioxide equivalent (tCO₂e)

The unit of measurement used to express the global warming potential of greenhouse gases in terms of the amount of carbon dioxide (CO₂) that would have the same warming effect over a specified time period. It allows different greenhouse gases, such as methane and nitrous oxide, to be compared based on their relative potency in causing climate change.

United Nations Sustainable Development Goals (UNSDGs)

A set of 17 global goals adopted by the United Nations member states in 2015 as part of the 2030 Agenda for Sustainable Development. These goals address various social, economic and environmental challenges, aiming to promote peace and prosperity while protecting the planet. The SDGs include targets such as ending poverty and hunger, ensuring quality education and healthcare, promoting gender equality and combating climate change.

Value chain

The value chain identifies each step of a business's activities in creating a product or service at which value is added, including the sourcing, manufacturing and marketing stages of product production. This is important from a sustainability perspective as it references internal and external stakeholders in the value-creation process and encourages a full lifecycle perspective of materials and products.

Vibrantz leadership team (LT)

The Vibrantz leadership team reports to the board and has responsibility for delivering on our corporate strategy. The team's role is to create various structures within the company to attract talented people, ensure the sharing of information, focus on compliance with company policies and procedures, and protect our data and information.

Vibrantz Online University (VOU)

Vibrantz's learning management system allows for the same training to be delivered across the globe in local languages. The system provides an array of courses, including EHS, compliance, computer skills, harassment, diversity and inclusion, and countless others.

Volatile organic compounds (VOCs)

A group of carbon-based chemicals that easily evaporate into the air at room temperature. They are emitted from various sources, including paints, solvents, cleaning products, vehicle emissions and industrial processes. VOCs can contribute to air pollution and the formation of ground-level ozone and smog, which can have adverse effects on human health and the environment.

