



**VIBRANTZ**  
TECHNOLOGIES™

# Elevating the everyday

2023 CORPORATE SOCIAL RESPONSIBILITY REPORT





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# ABOUT VIBRANTZ AND THIS REPORT

Vibrantz is a leading global provider of specialty chemicals and materials whose purpose is to bring color, performance and vibrancy to life. 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, are used in everyday electronic devices and serve as a key raw material in alkaline batteries. Additionally, our high-purity manganese sulfate, with an ultra-low carbon footprint, is a critical input for lithium-ion batteries powering electric vehicles.

Our Color Solutions technologies offer a one-stop shop for specialty pigments and liquid dispersions that bring color and performance advantages to architectural and industrial paints, coatings and plastics. Our infrared reflective pigments help improve sorting and recyclability of dark plastics and are utilized in architectural and industrial coatings to help conserve energy in homes and buildings. And our latest Pearls™ solution is revolutionizing access to biocide-free tinting for paints via solid colorants.

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

Formed in 2022, Vibrantz is committed to becoming an enduring and sustainable world-class company. We are governed by a board of managers and executive leadership team who are experts in their fields and dedicated to building a thriving business.

This inaugural [corporate social responsibility \(CSR\)](#) report summarizes our foundational 2023 sustainability efforts aimed at elevating all that we touch. Future CSR reports will be published annually. Day in and day out, Vibrantz’s work is fueled by our powerful shared belief that we are the best versions of ourselves when we are connected to and positively impacting others. You can review this report on [vibrantz.com](#). We invite you to continue our journey with us.



## OUR 2023 CSR COMMITMENT

At Vibrantz, our commitment to enriching our culture, businesses, communities and planet fuels all that we do. We believe positive impact is achieved through environmental responsibility, social connectedness, ethical governance and financial discipline, and have sustainability at the heart of our corporate strategy.

As part of our vision to become an enduring and world-class specialty chemicals and materials company, we conducted a robust materiality assessment in 2023, engaging internal and external stakeholders to identify key sustainability topics that will bring value to our business and stakeholders. To drive progress, we established a CSR Council that reports directly into the chief executive officer, and includes key leaders who are empowered to deliver on [environmental, social and governance \(ESG\)](#) initiatives and focus on the below areas.

### WORLD-CLASS SAFETY PERFORMANCE

Ensuring the health, safety and well-being of employees and the safety of our products are paramount. We are:

- Targeting 20% reduction of recordable incidents year-over-year, with the goal of becoming injury free.
- Focused on our cardinal safety rules training and personal protective equipment (PPE) compliance.
- Dedicated to current and emerging chemical compliance.
- Identifying and implementing safer ways to work.

### GREENHOUSE GAS (GHG) EMISSIONS REDUCTION

We recognize the climate crisis is one of our society's greatest challenges. We support goals to keep global warming within 1.5 degrees Celsius (°C) of pre-industrial levels by measuring and reducing our [GHG emissions](#) throughout the [value chain](#). We have:

- Developed Scope 1 and 2 emissions baselines (2022).
- Evaluated reduction targets for Scope 1 and 2 emissions.
- Begun data gathering on Scope 3 emissions in 2023.

### RESPONSIBLE PRODUCT MANAGEMENT

We will consistently review the environmental and social impacts related to our operations and value chain. We will:

- Reduce impacts of our actions by:
  - Lowering waste to landfills.
  - Increasing reuse and recycle rates.
  - Reviewing potential alternative raw materials.
  - Working toward carbon neutrality.
- Involve employees and stakeholders. Specifically:
  - Train all employees on environmental stewardship.
  - Conduct EcoVadis global supply chain review.
  - Collaborate on solutions to shared challenges.

### COMMUNITY IMPACT

We believe we are the best version of ourselves when we are positively impacting others. We aim to enhance the communities where we live, work and play and contribute to the longevity of our business. We:

- Are implementing employee involvement committees.
- Launched "Vibrantz in Action" (VIA) philanthropy program.
- Began tracking the number of hours volunteered in 2023.

Our adaptability to the evolving world around us and our commitment to acting responsibly are vital to Vibrantz's long-term success. Our CSR program is driven by our core purpose to bring color, performance and vibrancy to life and underpinned by a commitment to acting responsibly as we work to ensure a thriving future. For us all.



**MICHAEL WILSON**, President and CEO





## A MESSAGE FROM OUR CEO

**As we launch our inaugural CSR report, Vibrantz Technologies is also proudly celebrating our second anniversary as a global specialty chemicals and materials solutions provider.**

Just 24 months into our journey, we continue honoring and building upon the combined 300-year legacy of our predecessor companies as we innovate advanced materials, color solutions and performance coatings technologies for customers worldwide. At Vibrantz, we often say that “we elevate the everyday.” Our core purpose is to bring color, performance and vibrancy to life and – daily – we live out this calling by providing critical, high-value products, cultivating a creative and collaborative spirit among employees, and being a responsible and impactful presence in our communities.

The world faced another tumultuous year in 2023. Throughout the year, demand across many end-markets remained weak as customers worked through high inventory levels built up during the pandemic, forcing many to revise financial expectations and cost structures. Amidst this difficult

environment, the Vibrantz team took swift action to ensure we remained well positioned to serve customers while continuing the heavy lift of our large-scale integration.

The resilience of our global workforce throughout 2023 was remarkable and inspiring. During the year, we delivered strong revenue and earnings and improved earnings margins. We also began to establish the “Vibrantz Way,” a manner of working in which we move at speed, prioritize the safety of our people and operations, focus on enhancing the customer experience, and hold each other accountable.

**This report is a shining example of our purpose in action and how we are stepping closer to becoming world class with a sound CSR mindset at the core of our strategy.** Enriching our people, culture, communities and planet are vital to the long-term future we envision and our report is organized to reflect the guiding commitments of our CSR program, including remaining **ethically centered, socially connected, environmentally responsible** and **financially disciplined**. Each section outlines our actions, progress, targets and key performance indicators in each category.

Vibrantz has been awarded a “Committed” badge by EcoVadis. This is impressive considering that in just 12 months we established our CSR Council, mobilized our sustainability efforts and undertook the EcoVadis rating process. We achieved two of our highest scores in the environmental and sustainable procurement categories, highlighting the hard work and commitment to sustainable practices that Vibrantz embodies every day. Notably, two of our European subsidiaries in Spain and The Netherlands earned Platinum and Silver medals, respectively.

Looking ahead, Vibrantz is positioned to contribute to megatrends shaping societal and consumer needs like digitization and connectivity, the effects of climate change, global policy driving cleaner technologies, and urbanization around the world. We are particularly excited about the ways our innovations are elevating each day.

**Memory and electronics:** Our innovations for electronic materials and surface polishing will impact next-generation microchips and semiconductors as processing and memory needs in everyday devices increase.

**Mobility:** Our products remain instrumental in making automobiles, trains, buses and recreational vehicles safer and durable. Our nanotube dispersions for battery housing aid electrical conductivity and create lighter, stronger materials. And our manganese products for batteries support the shift to [zero-emission automobiles](#).

**Eco-friendly paints:** Our Pearls biocide-free tinting solution is positioned to grow as regulations encourage colorant producers and retail paint stores to seek more eco-friendly options. And our reflective pigments are helping improve energy efficiency of buildings.

**Plastic pollution:** Our reflective pigments reflect near-infrared light in black and dark plastics, making them easily detectable in recycling operations and lessening unnecessary waste at landfills.

**Digital printing:** Our digital inks for appliance glass and ceramic dinnerware are important as home and decorative applications embrace printing to achieve quick, stylish and affordable design.

I am incredibly grateful to our CSR Council and all our employees for embracing our shared purpose and remaining steadfast since we began our journey in 2022. They are the reason we are delivering on our promise to make the everyday brighter and more functional for customers and consumers. Vibrantz is fortunate they have chosen to share their heads, hands and hearts with us.

On behalf of the Vibrantz team, thank you for following our journey to create this very special company and shape a culture, footprint and legacy we are so proud to call our own.

**MICHAEL WILSON,** President and CEO



## Q&A WITH ALISON LANDIS

VP, associate general counsel and CSR Council lead

**There is much conversation around environmental, social, governance (ESG) and sustainability topics, both positive and negative. Some news could lead us to believe sustainability does not and should not matter. International agreements around climate, nature and human rights, and European initiatives and laws, however, indicate the importance of sustainability for companies, especially those that are global. What is Vibrantz's view?**

At Vibrantz, the answer is simple: We will always do what we believe is right for our people, stakeholders and the planet. This means we will consider how our actions impact our business and surrounding communities and environments, today and in the future, and continue to keep CSR integrated into our business strategy.

**The definition or hierarchy of words like "sustainability," "ESG" and "CSR" are debated often. How and why did we land on CSR?**

We recognize there are many overlapping terms that define business approaches related to social, environmental and economic issues.

We have often said that our approach must be authentic. Vibrantz gravitated strongly toward CSR because we believe it best captures the spirit of what we aim to achieve, which is to be a company that provides world-class products and services while considering our

people, community, planet and financial performance. We want to think, work and live today in ways that positively impact our stakeholders and ensure the longevity of our organization

**When asked to spearhead our CSR Council, you willingly stepped up. What does CSR mean to you?**

I have such a strong interest in CSR. My parents, an elementary school teacher and pediatric nurse, spent their days giving back to the community where I grew up, positively impacting the mental and physical well-being of generations of children and their families. I saw firsthand the impact of how we live, love and work.

In law school, I discovered my natural inclination toward environmental and agency law and pursued an environmental legal masters. During this time, my work at an international metallurgical corporation also impacted my worldview, as I began to understand the extent to which community and environmental issues influenced how the world saw and judged an enterprise. When given the opportunity to help establish Vibrantz's CSR program, it felt like the perfect opportunity to put my skills and interests to work for a bigger purpose. I believe strongly that our employees, future generations and the environment all need and deserve our consideration.

**How has Vibrantz undertaken so much CSR work so quickly?**

The amount of work undertaken since we began our CSR Council in December 2022 is staggering. We set high expectations for the Council and appointed strong leads to oversee different disciplines. Each committee delivered above and beyond the initial goals. We owe such gratitude to our CSR Council leads, members and employees for wholeheartedly embracing this program.

We have begun an impressive sustainable procurement program, developed a systematic approach to environmental metric reporting, structured a lifecycle analysis program to tackle key products in the short term and our broader portfolio longer term, ensured compliance with conflict minerals regulations and associated reporting templates, and launched a stakeholder impact initiative focused on engaging our

employees and growing community outreach. We did all of this in 2023 because we saw no reason to delay making commitments we felt were right. All of this hard work and dedication has set a solid foundation for ambitious goals in the coming years.

**How is the Vibrantz culture impacting our CSR work?**

Our purpose to bring color, performance and vibrancy to life manifests itself daily in the work our employees do. Our leaders are highly focused on finding ways to connect our people to this purpose and our six core values, such that they are becoming part of the fabric of who we are as an employer and serving as a springboard for our CSR work.

Walking the halls of our offices around the world, you see managers approaching their work with a learning and growth mindset, colleagues committed to innovating trusted technologies for customers, teammates and their families being caring stewards in their communities, and so much more. The members of our CSR Council and the leaders and employees supporting our work are fueled by a connection to our promise to make life more vibrant for the world. I look forward to sharing the many ways Vibrantz and our people continue doing what we believe is right.

**"We are thinking, working and living today in ways that positively impact our stakeholders and ensure the longevity of our organization."**

# WHO WE ARE AND ASPIRE TO BECOME

We began our journey in 2022 with a clear vision: to become a sustainable world-class specialty chemicals and materials company. Guided by our purpose to bring color, performance and vibrancy to life, we are committed to providing world-class service to customers while enriching the lives of our people, culture, communities and planet. We believe that we are the best versions of ourselves when we are connected to and positively impacting others, and for us, this starts internally with a genuine care and concern for our employees.

## PURPOSE

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

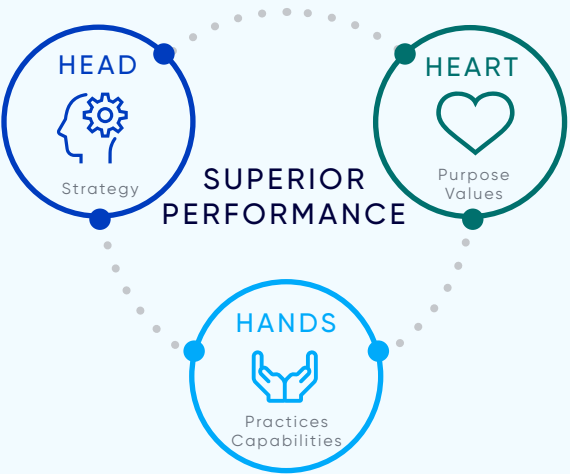
## VISION

**We aspire to be a  
sustainable world-class  
specialty chemicals and  
materials company**

# HOW WE WILL GET THERE

We strive to create a highly engaging workplace where our shared values are on display every day. Our ability to captivate employees’ heads, hands and hearts is vital as we work to foster strong engagement, or the connection our colleagues feel to our purpose and their unique contributions. We have committed to living out and holding each other accountable to six core values as we work.

## SYNERGY



## VALUES

### 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

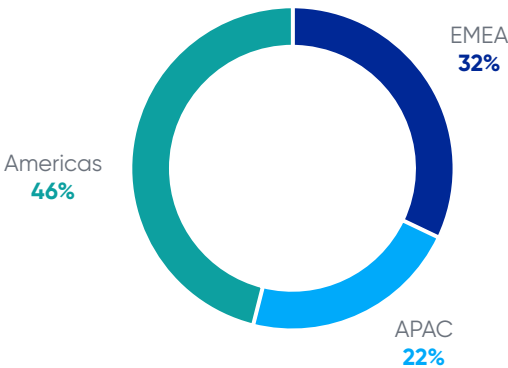
11,000+

customers worldwide

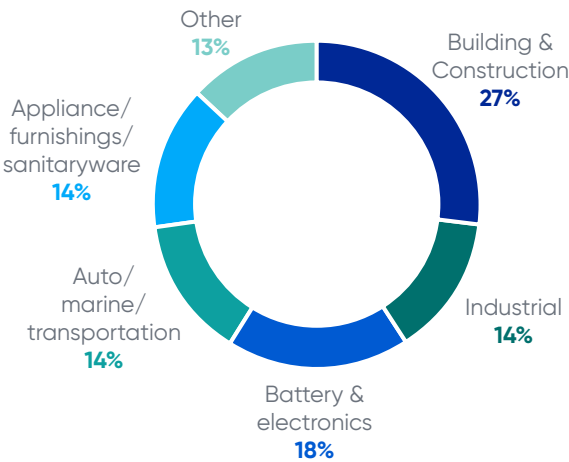
61 manufacturing sites  
on 6 continents

\$60+M invested in R&D since 2022 with 500+ patents

### SALES BY GEOGRAPHY



### SALES BY END MARKET



# OUR BUSINESS UNITS AT A GLANCE

With a 300-year combined legacy, we are experts in particle engineering, color technology and glass and ceramic science and our products are used in myriad markets.

## ADVANCED MATERIALS

As a leading producer of specialty mineral additives and battery and electronic materials, we are a world-class producer of advanced materials for specialized applications. We:

- Possess over 60 years of experience in manganese chemical production.
- 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.

## COLOR SOLUTIONS

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

- Are a one-stop shop for specialty pigments and liquid color solutions.
- Developed Pearls technology, the coatings industry's first and only volumetrically dosed tinting system of solid colorants designed for use in water-based paints.
- Are the world's largest producer of complex inorganic color pigments and ultramarine blue pigments.

## PERFORMANCE COATINGS

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


- Provide technical expertise, high quality and the widest portfolio in porcelain enamel, ceramic and glass coatings.
- Develop highly customized products in collaboration with customers.
- Have played a key role in the development and evolution of porcelain enamels enabling cookware made without "forever chemicals."



# 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.

# WE ARE EXPERT PROVIDERS OF SPECIALTY CHEMICALS AND MATERIALS SOLUTIONS

With expertise in particle engineering, color technology and ceramic and glass science, Vibrantz innovates arm in arm with customers to provide solutions that solve their most difficult challenges.

## SUPPLIERS



**We procure specialized minerals and materials from our suppliers**

- Biocides
- Dispersing agents
- Fillers
- Metallic chemicals
- Metallic minerals
- Pigments
- Resins
- Salts and sands
- Surfactants

## VIBRANTZ



**We utilize our unique process expertise and transform minerals**

- Mixing
- Smelting
- Milling
- Sieving
- Pasting
- Suspending
- Purifying

## PRODUCTS



**We deliver engineered solutions that provide color, functionality and enhanced performance**

- Additives
- Coatings
- Colorants
- Dispersions
- Minerals
- Pastes
- Pigments

## CUSTOMERS

**Provide customer partnership, support and innovation**

Our solutions elevate the look and feel of everyday products







# OUR CSR MINDSET

At Vibrantz, the core of our CSR efforts is a powerful shared belief that we are the best versions of ourselves when we are connected to and positively impacting others. Our CSR mindset is anchored in four core areas: ethically centered, socially connected, environmentally responsible and financially disciplined. Through this mindset, we value more than financial gain.

The remainder of this report is structured around each of our core areas. Each section concludes with an overview of key opportunities, which highlights areas for improvements, and our priority actions for this year. Some of these opportunities are under review by the CSR Council and will be prioritized with our Vibrantz leadership team.

## 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 2023 on governance, safety, business ethics and our supply chain.*



## 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, diversity, inclusion and belonging and community impact and philanthropy.*



## 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.*



## 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.*



# OUR CSR COUNCIL

To drive progress, we established a CSR Council with key stakeholders who are enabling positive impact at Vibrantz. Sustainability is championed at the highest level by our CEO. The CSR Council will play a central role in ensuring sustainability remains at the heart of our everyday.



**MICHAEL WILSON**  
President and CEO



**ALISON LANDIS**  
VP, associate 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

Amelie Billiard  
Kelvin Choi  
Valerie Gamble  
Ethan Guo  
Heidi van Halle  
Ana Ligia Manzano  
Gaby Marroquin  
Matthias Metzner  
Marissa Morris

Norilynn O'Neill  
Silvia Pomaroli  
Jerry Powers  
Luis Ramos  
Caitlin Ramsey  
Gerardo Ruiz  
Ariane Ventura  
Nok Woravuvichayavong

Marie Cox  
Stephanie Knoll  
Alison Landis  
Jim O'Day  
Dick Qin  
Luis Ramos  
Harry Thomasse

Marie Cox  
Terrill Harris  
Antoni Pineiro  
Harry Thomasse

Zoe Ollagnon  
Victor Perez

Luc Driessen  
Chellda Exantus  
Gloria Navarro  
Antoni Pineiro

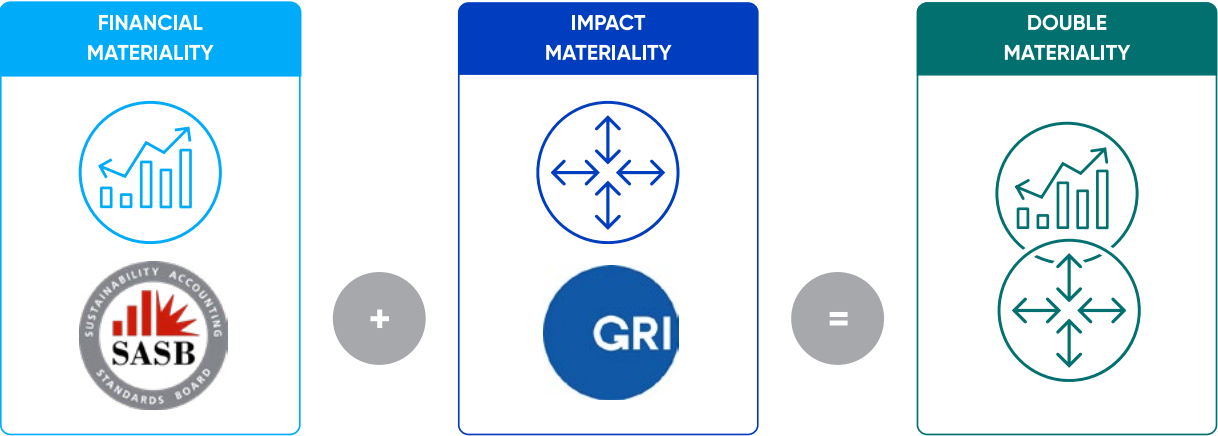


OUR CSR JOURNEY



# MATERIALITY ASSESSMENT

We are committed to an executable corporate strategy that delivers on our commitments to stakeholders. In 2023, we undertook a materiality assessment to help ensure our efforts are focused on the areas where we can have the greatest impact. We identified the relative impact of a range of ESG issues on the company’s performance and viability within the current market framework. Vibrantz has been supported by Nature Positive, a UK-based sustainability management consultancy, that continues to provide third-party assurance.



The methodology for our materiality assessment encompassed best practice guidance from the International Sustainability Standards Board (ISSB) and European Sustainability Reporting Standards (ESRS). Taking a forward-looking approach to upcoming developments in regulation, we aligned our assessment with “double materiality,” meaning we assessed the “outside in” risks and opportunities for Vibrantz’s economic value creation (financial materiality) and looked at our “inside out” ESG impacts on stakeholders, the wider world and the environment (impact materiality). We have reported against the Sustainability Accounting Standards Board (SASB) for financial materiality and Global Reporting Initiative (GRI) standards for impact materiality, which can be found in the appendix.

The materiality assessment was comprised of several steps designed to provide insights and enable informed decision making regarding which ESG topics will be our focus.







**LOOKING OUTWARD**

To position Vibrantz in the wider context of industry and sustainability, we performed an analysis to identify current and developing key ESG trends. We examined sustainability topics related to how businesses are aligned with and acting on critical global challenges like inequality, climate and nature. Engaging our stakeholders in this assessment was essential to understand their expectations and priorities. We gathered feedback from individuals from across all external stakeholder groups, including suppliers, customers and investors. We collected qualitative and quantitative inputs that gathered stakeholder perspectives on their sustainability focus, action and initiatives. This enabled us to establish the ESG topics of primary importance to our external stakeholders. ESG themes used to structure our research include waste and [circular economy](#), carbon and climate, social topics, regulatory pressures, global ESG-related risks, disclosure requirements, accreditations and innovation.



**LOOKING INWARD**

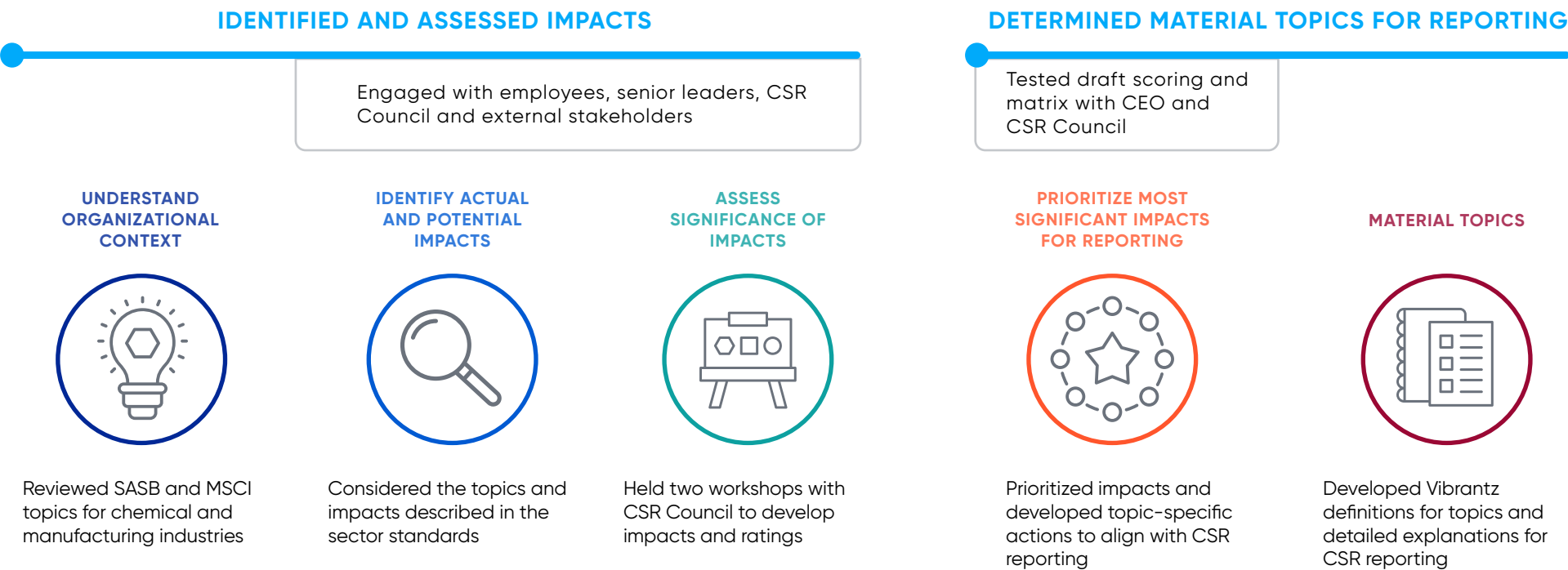
All Vibrantz employees were given the opportunity to shape the emerging CSR strategy via an online survey that asked about ESG priorities, actions and training needs, and potential barriers for sustainable change within the company. Roughly 500 employees completed this survey. Health-, safety- and waste-related topics consistently scored highly across all questions and emerged as clear priority areas. To gain insight from each of our legacy companies, we conducted semi-structured interviews with members of the leadership team, including the CEO and business unit presidents, and workshops with CSR Council members.

Nature Positive also assessed Vibrantz using their SDG IQ tool that provides a comprehensive, rapid overview of a company's direct, upstream and downstream operations in relation to each of the goals. These outcomes provided a high-level baseline that enabled us to identify next steps and key areas of improvement. Initial strengths included [Sustainable Development Goals \(SDGs\)](#) three, four and six.

OUR FIVE-STEP PROCESS

Building on the results of the stakeholder engagement and context analyses, we developed an overview of our key impacts in relation to potential material ESG issues. In line with GRI guidance, we analyzed potential and actual positive and negative impacts before rating and prioritizing issues according to their financial and impact importance. Vibrantz focused on important impacts and their materiality to the business and stakeholders, and identified topics where we could have the greatest impact as a company.

A high-level scoring was used to indicate a financial impact score and overall risk score, with an additional assessment of Vibrantz’s ability to make an impact on the given topic. These were combined to give an overall score of importance to Vibrantz. Each topic was also assessed and given a score for importance to stakeholders. In total, 27 topics were scored.





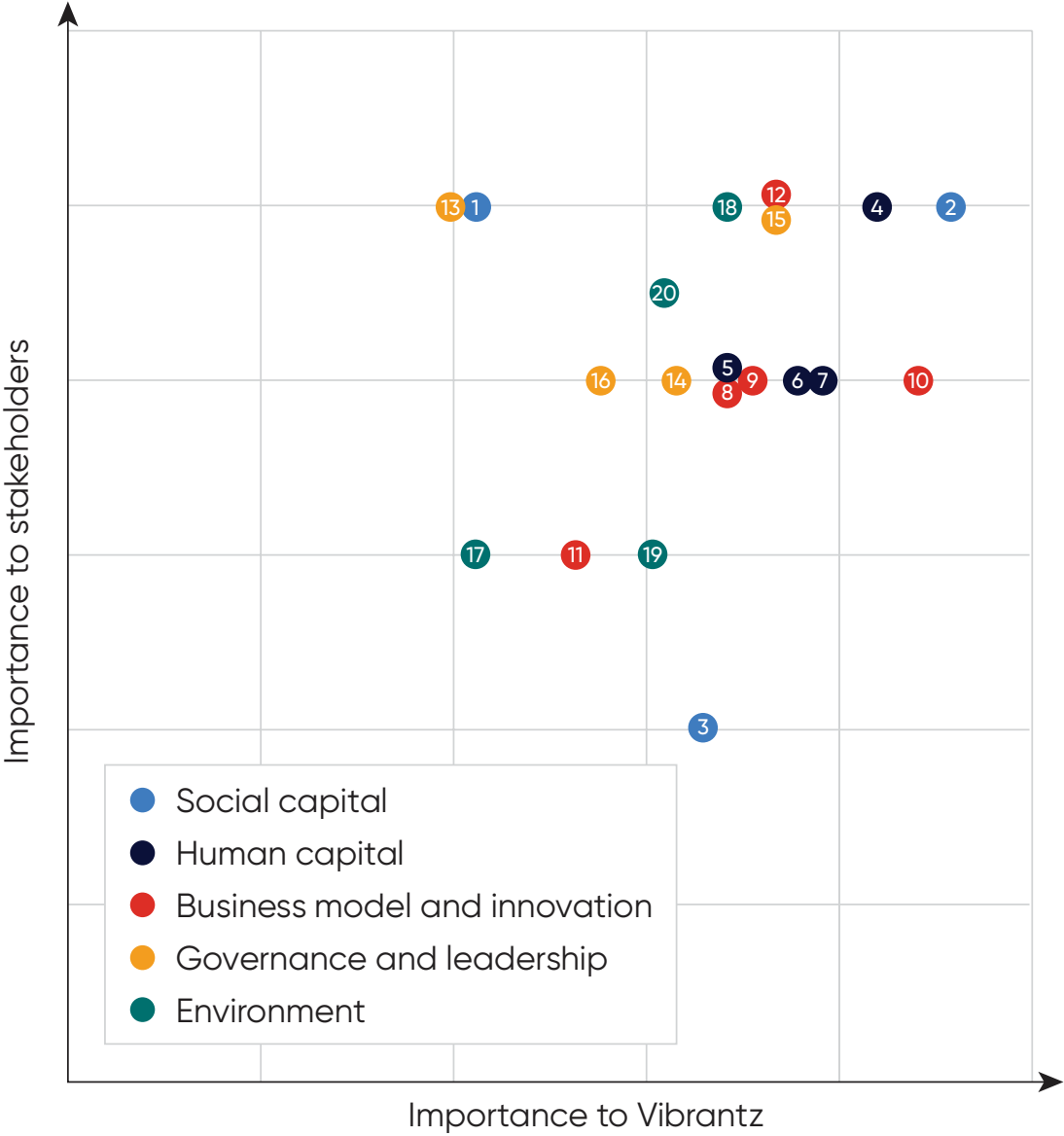
UNDERSTANDING THE RESULTS

The results highlight that although there has been progress on some of these topics, effective governance must be continued to maintain performance. Vibrantz will continue to regularly assess and audit these processes and procedures.

The materiality assessment will help guide future work and identify focus areas for action. Material topics requiring further development and improvement plans include GHG emissions, product lifecycles, sustainable value chain, waste and circular economy, community relations, water and wastewater management, and diversity, inclusion and belonging.

Vibrantz selected employee health and safety, chemical and product safety, GHG emissions, and community relations as our priority topics for the development of 2024 metrics and key performance indicators (KPIs). We believe that - by focusing on employee safety, working to reduce GHG emissions, understanding the lifecycle of our products and continuing to engage in the communities where we live and work - we will elevate the everyday.

Materiality is dynamic and will inevitably fluctuate with internal and external performance and priorities over time. Vibrantz is committed to reviewing the materiality assessment every three years to reflect the current context and associated risks and opportunities. This will ensure our targets and actions are fit for purpose and remain ambitious.



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

10

Innovation

9

Sustainable Value Chain

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 GHG's)



SDG ALIGNMENT

In 2015, the [UN](#) adopted the SDGs to provide global goals and an associated framework of targets for a peaceful and prosperous future for people and the planet by 2030. These goals provide a planetary framework for sustainability and were adopted by all UN member states. The SDGs split sustainable development into 17 goals that cover key environmental, social, and economic drivers. Vibrantz is committed to the achievement of the UN's SDGs and has aligned our [sustainability KPIs](#) with them.

While all 17 SDGs are vital to ensuring sustainable global development, Vibrantz can contribute to different goals to varying degrees. 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 2023
	Continue to apply effective internal safety procedures, product quality control and management of hazardous chemicals.	All employees undertook Cardinal Safety Rule training and EHS audits were conducted at select sites globally. A business-wide platform was launched to provide data visibility, track incidents and address issues via corrective actions.
	Ensure no pollution to water systems and lower our water usage especially in water stressed regions.	A global water risk assessment was conducted. Water efficiency and reduction improvements were delivered to improve wastewater management, including eight examples highlighted in this report. Some sites have undertaken feasibility studies for rainwater harvesting and treated water recovery for consideration in 2024 onward.
	Support renewable energy generation and efficiency through our operations and products.	Sites evaluated renewable energy generation and three sites sourced 100% renewable energy. Key products that support renewable energy include glass enamels for photovoltaic panels and manganese sulfate 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.	Employee involvement committees were established at 90% of sites by end of 2023. Quarterly philanthropic events are planned via the 'Vibrantz in Action' program. Global harmonization of benefits package is in progress. We launched a supplier code of conduct that includes commitments to human rights practices and labor standards.
	Increase sustainability and efficiency of industrial processes through our operations, R&D and products.	We commenced product LCAs in 2023. The LCA for battery-grade manganese sulfate was issued in 2024. Industrial process innovations were delivered to improve energy efficiency, reduce water use and improve wastewater management (see SDGs 6 and 13 for further detail).
	Improve sustainability across Vibrantz operations and our value chain, including through materials sourcing, waste management, circular principles, technology and efficiency improvements.	Established sustainable procurement policy. Completed EcoVadis supply chain assessment for Color Solutions EMEA targeting all suppliers with \$150M spend in 2022. New supplier code of conduct was launched in November 2023. We engaged with identified suppliers regarding conflict minerals reporting and had a 70% response rate.
	Reduce our carbon footprint, increase resilience, reduce climate impact of products and support a transition to a low-carbon society.	Completed 2022 global operations Scope 1 and 2 GHG emissions assessment. Made improvements to enhance energy efficiency and reduce emissions at various sites.
	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.	Our infrared reflective pigments help improve sorting and recyclability of dark plastics and conserve energy in architectural and industrial buildings. Our latest Pearls solution is revolutionizing access to biocide-free tinting for paints with solid colorants.
	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.	Undertook nature and biodiversity screening assessment for likely material impacts and dependencies. Earth Day selected as one of 4 VIA events in April 2024 with staff celebrating Earth Day through environmental-focused activities.
	Ensure effective, transparent and fair governance across our organization and supply chain.	Launched our supplier code of conduct that includes commitments to human rights practices and labor standards. Submitted EcoVadis assessment for Vibrantz globally and initiated EcoVadis supply chain assessment for all global operations.



# OUR SCORECARD

MATERIAL TOPIC	KEY PERFORMANCE INDICATOR (KPI)	TARGET	TARGET YEAR
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

# 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 internal and 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  
CEO



SCOTT WOLFF  
Chairman



## VIBRANTZ LEADERSHIP TEAM



**MICHAEL WILSON**  
President and CEO



**MICHAEL TURNER**  
EVP and CFO



**MARK WHITNEY**  
EVP and general counsel



**IMELDA TORRES-LABORDE**  
EVP and chief human resources officer



**SURESH RAO**  
EVP, chief integration and information officer



**MATTHIAS BELL**  
EVP, corporate engineering and capital project management



**JACQUES VANIER**  
EVP, global operations



**DENNIS KARNSTEIN**  
President,  
Performance Coatings



**BARRY MISQUITTA**  
President,  
Color Solutions



**DAVID NEWTON**  
President,  
Advanced Materials

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 2023 examples including the formal global roll out of the code of ethics, the completion of the U.S. employee handbook and global consolidation of employment policies and procedures, sustainable procurement policies, and sustainability policy statements. Furthermore, a formal approval matrix was established that guides all employees on the proper approvals required depending on the type of commitment to ensure proper oversight and controls are in place.



The Vibrantz LT has also focused their teams on creating systems and structures to enable the consolidation and validation of information across our global organization. In 2023, the global human resources information system Workday was launched and allows for all labor information to be stored in one location with the proper data privacy provisions in place. The Workday platform also serves as a central launching point for employees to access compensation, benefits, policies and procedures, training and time management functions.

Vibrantz implemented its online [environmental health and safety \(EHS\)](#) management system, Vector Solutions, at the end of 2022 and over the course of 2023 increased its use and value throughout the company. In 2023, Vibrantz launched a weekly EHS scorecard showing performance across all Vibrantz operational sites. This weekly snapshot allows our leaders and EHS professionals to quickly assess performance, determine areas that may require additional support and continue to drive positive results in line with our CSR commitments.

In parallel, Vibrantz also deployed an operations scorecard to enable the company to better understand each site's performance against KPIs such as safety, production, costing, inventory, quality and labor management.

Vibrantz also launched its learning management system, [Vibrantz Online University \(VOU\)](#), powered through Vector Solutions. This learning management system allows for the same training to be delivered globally in local languages and provides a breadth of courses including EHS, compliance, computer skills, harassment, diversity and inclusion, and countless others.

Over the course of 2023, Vibrantz revamped its SharePoint site to ensure all internal information can be shared quickly and effectively. This includes brand assets, company policies and procedures, EHS policies and procedures, company announcements, and important links to Workday and safety systems.

The Vibrantz LT also established three corporate centers of excellence (COEs) in the areas of operations, commercial and technology excellence to enable information sharing across our business units as we create, build and grow best practices throughout the company. In particular, our commercial COE launched negotiation skills training for sales colleagues worldwide, enabled the use of Salesforce.com to help sales teams better understand and manage account information, and implemented commercial dashboards across our business units that include market-leading indicators to enable smarter business decisions. Our technology COE has consolidated research and development efforts and introduced a prioritization tracking system to ensure active management from invention to production. The operational COE helped our business units share EHS best practices and increased focus on assessing financial impacts of their work and managing production accordingly.





# SAFETY

With the implementation of the Vector platform, Vibrantz now has real-time information related to any incidents in a uniform and trackable manner. This allows our EHS and management teams to better understand what is happening at each location, determine root causes and create action plans to address any issues. The Vector system allows corrective actions to be linked directly to any incidents thereby allowing tracking from date of discovery until the corrective actions are complete.

Vibrantz also launched the SafeStart behavioral-based safety system in 2023 at select sites and will continue to target additional sites in the future. Focusing on behavioral-based safety fosters a holistic approach by considering leading and lagging indicators.

With the implementation of VOU, the EHS team also launched its Cardinal Safety Rule training initiative requiring that all personnel – from our CEO to our production workers – complete the training to ensure everyone knows these lifesaving rules and can actively participate in their safety and that of their colleagues, peers and friends. Vibrantz has its sights set on ensuring all employees are consistently attentive to their actions and the actions of those around them so that any unsafe behavior can be identified, isolated and prevented.

## CARDINAL SAFETY RULES



CONFINED SPACE



WORKING AT HEIGHT



WORK AUTHORIZATION



ENERGY ISOLATION



LINE OF FIRE



BYPASSING SAFETY CONTROLS



DRIVING



HOT WORK



SAFE MECHANICAL LIFTING



FIT FOR DUTY

Because it is important that the company understand the operational, safety and [environmental footprint](#) of each site, Vibrantz created an EHS audit program. This enabled the company to better understand current practices and areas for improvement. These audits have been hugely successful in helping Vibrantz address risks, making employees safer and ensuring compliance with rules, regulations and permit conditions.

The EHS team also launched key initiatives in 2023, including improvements to machine guarding and elimination of open-blade cutting devices. Our sites have been actively assessing all equipment to determine if guarding is needed and then creating and implementing plans to ensure all necessary guarding is installed properly and safely. In 2023, Vibrantz implemented a cutting devices policy, nearly eliminating the use of open blades. As a result, we saw a near elimination of all cut or scrape injuries related to open blades and further protected our people.

In 2024, we aim to achieve a TRIR of 0.9. By 2028, we aim to lower this to 0.4, ultimately achieving 0.2 by 2030.

Safety is the heart of our organization and ensuring the safety of our people is paramount. Our safety program begins with robust systems for identifying risks, developing and implementing corrective actions and sharing best practices to minimize risks. We are invested in educating, training and listening to employees to ensure we are always working and thinking safely.

**JACQUES VANIER, EVP, GLOBAL OPERATIONS**



## BUSINESS ETHICS

Our commitment to conducting business in a way that makes us a partner of choice underpins all we do. Vibrantz established a global compliance program in 2023 that includes the Vibrantz Code of Ethics, global trade compliance management, an ethics hotline for reporting any concerns, cybersecurity protocols, the development of the Quality Assurance and Regulatory Affairs (QARA) department, and training to reinforce our ethical commitments.

The Vibrantz Code of Ethics is central to our ethical commitments. This code formally lays out the requirements that all Vibrantz employees must follow including conformance and respect for human rights, diversity and inclusion, data privacy, EHS, and anti-harassment, -corruption, -retaliation and -bribery. In conjunction with the Code of Ethics, Vibrantz established an ethics hotline to ensure all employees can voice concerns. Information about how to access the hotline is posted at each site and available on our SharePoint-based intranet. In 2023, Vibrantz also rolled out an ethics hotline and investigation training with all human resources personnel globally, detailing when and how to access the hotline and the importance of conducting unbiased investigations into all complaints received.

In 2023, Vibrantz's global trade compliance team implemented systems to vet suppliers and customers against trade rules and regulations. Vibrantz drafted global trade compliance communications that were sent in early 2024 to distributors and customers to ensure compliance with applicable trade rules and regulations.

In late 2023, Vibrantz created a [QARA](#) department to help drive quality, compliance with ISO standards and a system for managing product regulatory affairs. The QARA department will be responsible for helping our sites work toward ISO certification by focusing on the quality of Vibrantz products and compliance with all regulatory frameworks associated with these products.

Vibrantz also made significant strides in information security in 2023. We focused our efforts on harmonizing the information security approach across the organization. In conjunction with an infrastructure simplification, this standardization ensured we had the ability to monitor and proactively prevent breaches. We also launched an information security awareness program to educate employees on how to recognize phishing attempts and other cybersecurity threats, as well as best practices for password management. To practice our response to any potential breaches, we worked with a reputable cybersecurity consultant to simulate a breach of our security platform to ensure we could properly vet our procedures and identify gaps. In 2024, our goal is to drive further harmonization, conduct proactive vulnerability scans to identify weaknesses, and educate our users on new and evolving threats to our organization.



# SUPPLY CHAIN

Vibrantz is committed to focusing on the actions we take when conducting business as well as the actions of those with whom we trade. In 2023, Vibrantz made significant progress in sustainable procurement. First, we implemented our Sustainable Procurement Policy and Supplier Code of Conduct focusing on the characteristics we require of the partners in our supply chain. These initiatives were also included on our global Vibrantz Terms and Conditions to ensure sustainable practices are engrained in the way Vibrantz does business. By the end of 2025 Vibrantz is seeking confirmation from 80% of our key suppliers to the principles of the Supplier Code of Conduct.

Importantly, Vibrantz also partnered with EcoVadis to launch a project to review all Vibrantz suppliers globally. The Ecovadis supply chain assessment covers environment, labor and human rights, ethics and sustainable procurement practices. In 2023, we completed a review of all suppliers for our Color Solutions business unit in the EMEA region and started a review of all suppliers for our Advanced Materials and Performance Coatings in EMEA in December. Over the course of the next few years, Vibrantz will expand these reviews to the Americas and Asia Pacific regions for all three business units.

The evaluation of our Color Solutions EMEA business partners shows that our key suppliers rated better than our average chemical industry peers. With information obtained from EcoVadis evaluations, as well as the volume of business and the countries of origin, Vibrantz developed the “Vibrantz CSR Supplier’s Risk Analysis.” The analysis identified 35% of suppliers as “risky.” We have focused our efforts on evaluating all of our global suppliers and establishing criteria for key supplier sustainability targets and improvements.

In addition, Vibrantz established a plan to train our purchasing team on priority CSR issues. By the end of 2023, 90% of our key purchasing decision-makers were trained on sustainable procurement challenges and benefits.

Vibrantz adheres to the Conflict Minerals Reporting Template (CMRT) and received responses from 70% of identified suppliers. In 2023, our product stewardship and procurement teams began requesting information from all identified suppliers related to the Extended Minerals Reporting Template (EMRT). We are targeting 100% reporting on both templates by end of 2024.



How we manage our supply chain is an important part of our commitment to society and the environment. The sustainable procurement committee developed a strategy that will enable efficiency, help us manage risks and create economic, social and environmental value for stakeholders. I am very proud of the enthusiasm and contributions of all of our team members.

**ANTONI PINEIRO, QEHS AND SUSTAINABILITY**

# OPPORTUNITIES AND FUTURE FOCUS AREAS

ETHICALLY CENTERED	
CMRT and EMRT	Increase reporting on CMRT and ensure compliance with EMRT by end of year.
Training matrix	Develop training matrix to plan, track and manage all employee trainings against required and desired training.
Key supplier targets	Develop targets to evaluate suppliers.
Environmental reporting and compliance calendars	Complete compliance calendars at all sites and add to EHS reporting system to ensure compliance and accountability to all environmental requirements.
Risk review and analysis	Develop and launch EHS and operational risk review approach and strategy for Vibrantz globally.





# SOCIALLY CONNECTED

Since early 2022, we have endeavored to create a workplace focused on connecting employees to our purpose. We recognize that purpose brings a sense of meaning to our lives as individuals and believe this meaning can propel Vibrantz forward as we work toward our vision of becoming a world-class company. If our purpose is consistently reflected in all we undertake, we can ultimately promote the engagement of our employees and increase our financial performance.

We refer to this harmonious relationship as The Virtuous Circle, which links:

**Purpose:** We must genuinely care about each other as individuals and connect employees’ work to our purpose and its impact.

**Engagement:** Employees deserve the opportunity to do meaningful work that engages their heads, hands and hearts.

**Competitive advantage:** The engagement level of our employees can create a unique culture and competitive advantage.

**Performance:** Vibrantz’s competitive advantage should result in our outperformance and ability to continue reinvesting in our purpose.



Our guiding CSR commitment to be socially connected to our people and communities is deeply rooted in The Virtuous Circle, particularly with regard to the purpose and engagement elements. We aim to foster a culture of dedicated individuals who go above and beyond and create a safe, productive and healthy workplace that delivers financial performance and growth faster than our peers and markets.

“We are committed to creating a workplace where our people come to work each day and can perform tasks that suit their skills and talents, and do work that challenges, inspires and fulfills them. If we can do this, we will succeed far beyond providing strong financial results.”

**IMELDA TORRES-LABORDE, EVP AND CHIEF HUMAN RESOURCES OFFICER**

This section of our report is dedicated to the 2023 initiatives we prioritized to help our people and communities thrive.



# IMPROVEMENTS, COMMUNICATION AND LISTENING

As a newly formed organization in 2022, we focused primarily on continuing to provide excellent service to customers without interruption, ensuring we worked safer, and weaving together the systems, processes, product offerings and corporate cultures of our three legacy companies. In 2023, we prioritized the following efforts to enhance the employee experience.

## IMPROVED BENEFITS AND SYSTEMS

### GLOBAL BENEFITS HARMONIZATION

As part of our efforts to standardize and streamline practices and processes, we ultimately expect to take a global approach to benefits management. In 2023, we began streamlining our U.S. benefits and partnering with Mercer Marsh Benefits (MMB) to

serve as our broker for insured employee benefit plans. Through this partnership, MMB coordinates life, accident and medical insurances Vibrantz offers employees. Ultimately, we expect our partnership with MMB will help us more efficiently and effectively align and manage the programs we offer and the resources they require, be more agile in accounting for local and global considerations as we make decisions, better manage risk and compliance issues, and provide an easier digital experience for employees to access their benefits.

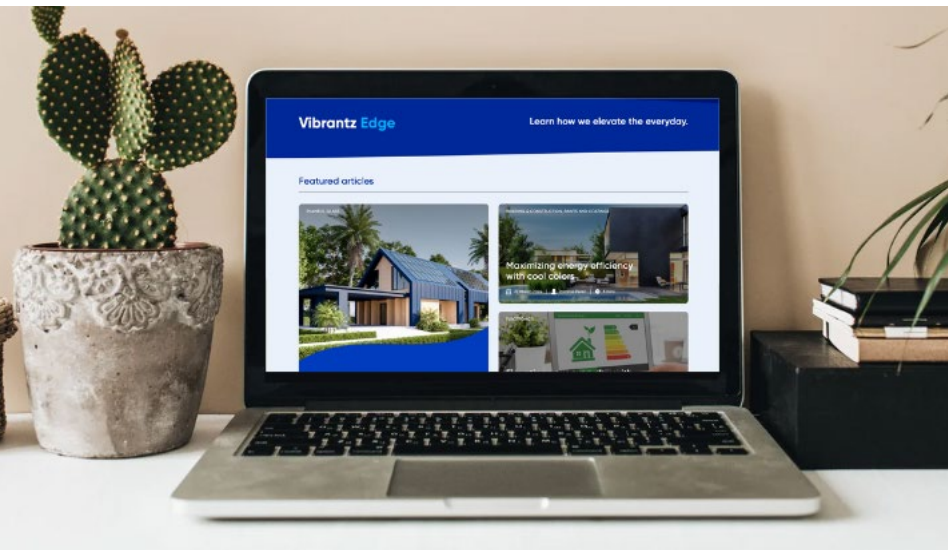
### HUMAN RESOURCES INFORMATION SYSTEM (HRIS) INTEGRATION

In 2023, we consolidated our HRIS systems to Workday, a cloud-based human capital management solution. With Workday, Vibrantz now utilizes a common global platform to drive operational efficiencies and provide scalability to support future growth. Particularly with regard to our workforce, Workday has helped standardize and streamline our HR processes, maximize our reporting capability by providing real-time data for various departments, ensure a more consistent user experience, and reduce our operating costs.



LEVERAGED STRATEGIC COMMUNICATIONS

- In 2022, we established a strategic Communications and Brand function to connect employees to our purpose and promote the Vibrantz brand. This department worked quickly in 2022 to launch core internal channels to share important information with employees, including our:
- "Vibrantz Headlines" newsletter with employee- and core values-related information.
  - "Better Together" newsletter sharing integration wins worldwide.
  - "600 Seconds With The CEO" podcast where we had fireside chats with a moderator and our CEO.
  - SharePoint-based intranet where all functions and teams share key information and documents needed by employees.
  - "Vibrantz Quarterly" company-wide town halls to share safety, financial, operational and excellence performance each quarter.
  - "Meet Vibrantz" presentation series focused on the launch of large-scale projects that could impact employees company-wide.



- In 2023, the Communications team launched two key external channels for stakeholders:
- Our new corporate website at [www.vibrantz.com](http://www.vibrantz.com) went live in February 2023.
  - We launched our "Vibrantz Edge" blog in May 2023 and published articles about our company and exciting products.

Vibrantz Edge

	WELCOME TO VIBRANTZ	COLORING THE WORLD	IMPACTING MOBILITY'S FUTURE	AMPLIFYING CUSTOMER EXCELLENCE	PRIORITIZING WELL-BEING	ADVANCING OUR CSR JOURNEY
Corporate	<a href="#">Reflecting on 365 Days as Vibrantz</a>	<a href="#">Developing on authentic culture</a>	<a href="#">It's about the journey</a>	<a href="#">We are better together</a>	<a href="#">Employee engagement and well-being as keys to success</a>	<a href="#">Our purpose-driven path</a>
Advanced Materials	<a href="#">Electronics and our role in elevating the everyday</a>	<a href="#">Building with brick enhances more than just curb appeal</a>	<a href="#">Accelerating EVs with high-purity manganese sulfate</a>	<a href="#">Ensuring your electronics work without fail</a>	<a href="#">Water is a clear priority</a>	<a href="#">The drive toward zero emissions</a>
Color Solutions	<a href="#">Pioneering the future of colorants with Pearls</a>	<a href="#">The power of color in consumer trends</a>	<a href="#">Innovation drives composite adoption in automotive applications</a>	<a href="#">Innovatint makes any color possible</a>	<a href="#">Green is more than a color</a>	<a href="#">Promoting recyclability with near infrared pigments</a>
Performance Coatings	<a href="#">Building from the ground up with digital inks</a>	<a href="#">Why your plate matters as much as your food</a>	<a href="#">A cooler ride ahead with IR reflective windshields</a>	<a href="#">Glass takes center stage in dental hygiene</a>	<a href="#">Transforming buildings with digital inks</a>	<a href="#">The forever factor in ceramic cookware</a>

ENABLED EMPLOYEE FEEDBACK

We worked diligently in 2023 to collect and understand employee feedback about:

VALUES AND CULTURE

We hosted a series of employee-led focus groups around the world to understand how we could best live out our six core values, and partnered with Gallup to host a feedback survey about what it is like to work here.

WELL-BEING

We partnered with Mercer on a survey to understand employees' overall wellness preferences.

DIVERSITY, INCLUSION AND BELONGING (DI&B)

A group of dedicated employees from our DI&B committee surveyed employees about what these terms mean to our stakeholders.

VALUES

In early 2023, we conducted a series of focus groups with employees that gave our people an opportunity to share their perspectives on how well we were living up to our six core values. We hosted 17 focus groups at 10 sites across the Americas and Europe, spending over 30 hours truly listening. We gained insight into what employees wanted us to act on in the short term in the areas of safety, our people, excellence and customers. We were able to act on feedback in each area in 2023.



SAFETY



PEOPLE



EXCELLENCE



CUSTOMERS

WHAT WE HEARD

Would like broader safety focus to include mental well-being	Seek recognition and appreciation for work  Desire more opportunities to give back to local communities  Want ongoing team building activities on-site	Want clear development and training paths  Want to better understand the products we make	Seek understanding of how our work impacts customers
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WHAT WE BEGAN

Opened access to employee assistance programs  Partnered with Mercer to conduct a global well-being survey	Focused a town hall section on recognition by business unit  Created "Vibrantz in Action" philanthropy program  Began Implementing employee involvement committees at sites	Rolled out "Manager Excellence Training" (MET) program  Launched employee edition of "Vibrantz Edge" blog highlighting our products and people	Launched "Vibrantz Edge" blog
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CULTURE

In 2022, we partnered with Gallup to conduct our first “Every Voice” employee feedback survey to assess the health of our culture – as measured by employee engagement – and better understand what employees need to do their best work. We selected Gallup because their approach to meeting employee needs aligns with The Virtuous Circle philosophy connecting purpose, engagement, competitive advantage and performance.

At an 87% participation rate, employees provided input that we built into a roadmap to drive engagement and create a strong, shared culture.

In 2023, we advanced our engagement efforts as we:

- Leveraged internal communications channels and training efforts to educate managers on the role of all 12 elements in Gallup’s survey tool, and the important role managers play in an employee’s experience and perception of our company.
- Partnered with Gallup to train “engagement champions” to support our managers as they began to understand their site, business unit and regional survey results.
- Developed 2024 engagement strategy designed to make engagement part of our everyday discussions.

Read about our 2024 plans in the [“Opportunities” section](#)

WE SAW ABOVE-AVERAGE SCORES IN TWO AREAS:

- 1 Employees strongly agree we care about their personal safety and they have the opportunity to do what they are best at daily.
- 2 We can improve employees’ ability to have more regular check-ins with managers and offer greater opportunities for growth and development at work.



In addition to our “Every Voice” efforts, our manganese production facility in Tampico, Mexico, was recognized for the second year in a row by the “Great Place to Work” organization. In 2023, Vibrantz was #2 on the organization’s “Top 100 Places to Work” in Mexico, reaching the #1 spot in the Manufacturing and Production sector, and achieved #4 on the “Best Workplaces for Women” in Mexico lists.



Our leaders promote and strengthen an atmosphere of respect, responsibility and teamwork. This has made our site, in particular, a great place to work because our team trusts each other and is highly committed.

MOISES NARVAEZ, TAMPICO PLANT MANAGER

EMPLOYEE INVOLVEMENT COMMITTEES (EICs)

By the end of 2023, 90% of our sites had an active EIC in place and were organizing monthly events to promote local team building, employee appreciation, living out our company values, and a being a positive presence in our communities. Ultimately, these EICs will serve as site-level culture and engagement champions helping us celebrate the uniqueness across our regions but also all that unites us.

As an EIC member in Americana, Brazil, I have seen firsthand how the monthly activities have enhanced site morale, leaving employees feeling appreciated and grateful to make a difference within our local community. This initiative is enabling employees to build stronger relationships with others.

SILVIA POMAROLI, HR MULTISITE MANAGER, SOUTH AMERICA

COMMUNITY IMPACT AND PHILANTHROPY

In the autumn of 2022, just a few months after launching Vibrantz, we saw impressive employee participation in a global virtual five-kilometer (5K) race doing an activity of choice, like biking, walking, cycling, rolling and stretching. Employee enthusiasm inspired a committee to create a formal pathway for philanthropy at Vibrantz to offer employees consistent opportunities to give back to their communities in areas that promote the Vibrantz purpose. Launched in August 2023, “Vibrantz in Action” (VIA) is a global philanthropy program committed to improving the communities where we live, work and play. Each quarter, we unite to focus on a key theme or event.

		
	THEME	GOAL
Q1	STEM education	Empower young minds for a brighter future
Q2	Earth and environment	Celebrate Earth Day and nurture our planet
Q3	Global virtual 5K event	Participate in activity of choice for 5K distance
Q4	Well-being	Contribute to overall wellness of community

Our first official VIA event was held in 2023 as part of our second virtual 5K event. Many of our teams around the world participated in our 5K event in some physical activity and also hosted a team event together focused on promoting their community’s well-being.

In 2024, we aim to achieve 40% employee participation in the VIA program during the year.

We are watching our teams worldwide personalize what ‘action’ in their communities looks like to them. It is so inspiring and we have only just begun efforts that will help the communities where we operate truly thrive.

CAITLIN RAMSEY, SENIOR MANAGER, MARKETING COMMUNICATIONS

## WELL-BEING

In 2023, we partnered with Mercer to conduct our first global well-being survey to understand how our wellness offerings were meeting employee needs and what else employees would find helpful as they navigate the challenges of work-life balance. Nearly 65% of employees responded, giving us a snapshot of strengths and opportunities we could look to target in 2024.

### TODAY'S STRENGTHS

#### Employees:

- Have strong relationships with colleagues and feel Vibrantz is free of harassment and discrimination.
- Feel physically safe outside work and have access to healthy food.
- Have clear goals and feel their work matters.

### OPPORTUNITY AREAS

#### Employees:

- Desire personal financial planning services for retirement preparation.
- Desire greater access to mental health benefits and stronger skills to find work-life balance.

Read more detail about our 2024 well-being plans in the ["Opportunities" section](#)

## DIVERSITY, INCLUSION AND BELONGING (DI&B)

Our vision for Vibrantz is to become a world-class employer of choice. To us, realizing this vision is about more than creating a culture where "diversity," "inclusion" and "belonging" are buzzwords or where initiatives are driven by or through Human Resources. In 2023, a small DI&B committee administered an employee survey, to which over 30% of employees voluntarily responded. Our employees:

- Believe Vibrantz appreciates diverse ideas and people.
- Feel Vibrantz is inclusive and that they belong.
- Are comfortable being themselves in the workplace.
- Have a strong desire to be heard.
- Value transparency in communication and building even greater trust among teams.

Read more detail about our 2024 diversity, inclusion and belonging plans in the ["Opportunities" section](#)





# TALENT DEVELOPMENT FOUNDATION

Throughout 2023, we also advanced initiatives to develop our employees, including:

## VIBRANTZ “MANAGER EXCELLENCE TRAINING” (MET) PROGRAM

Vibrantz created and launched MET to help supervisors gain knowledge in the areas of safety, people, financial, operational and strategic leadership to ensure world-class managers and supervisors.

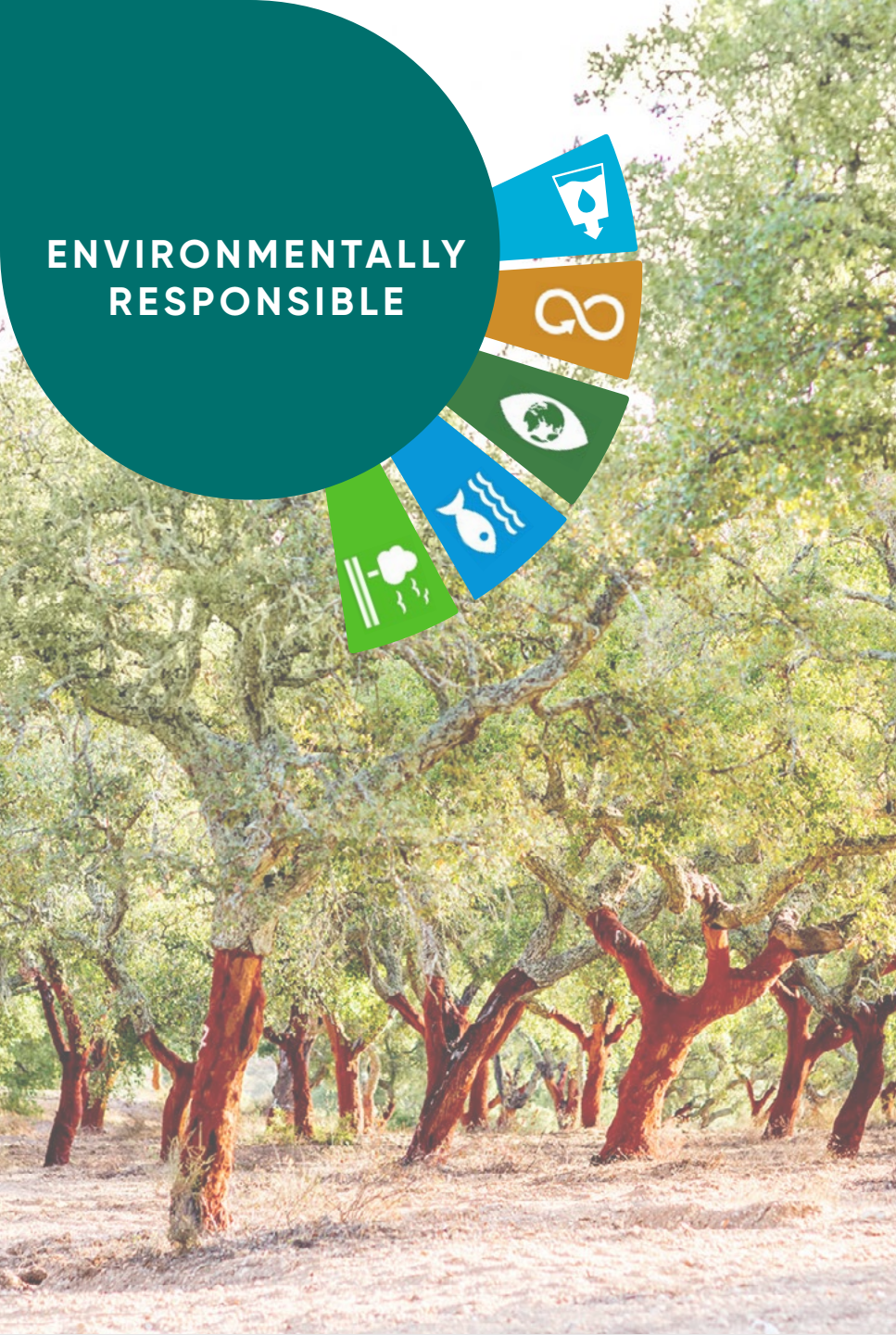
## VIBRANTZ ONLINE UNIVERSITY (VOU)

VOU provides electronic learning opportunities that empower our workforce. The platform is designed to boost performance, refine skills and cultivate a safety-focused environment as we contribute to a resilient and future-ready organization. Through VOU, we invest in the growth of our employees by providing access to thousands of courses related to EHS, business acumen, professional development, and DI&B.



# OPPORTUNITIES AND FUTURE FOCUS AREAS

Socially Connected	
Engagement	<p>Our 2024 engagement goal is simple: Make engagement part of our everyday dialogue just like we have done with safety.</p> <ul style="list-style-type: none"><li>• Q1: We launched a pilot program for managers at 16 sites focused on improving manager-employee communication and encouraging individual involvement.</li><li>• H2: We will host our second enterprise-wide “Every Voice” survey and aim to achieve 90% participation.</li><li>• We will regularly share engagement insights in our “600 Seconds with the CEO” podcast.</li></ul>
Well-being	We will integrate learnings from 2023 feedback to create a strategy that promotes the employee experience.
Diversity, inclusion and belonging	
Talent management	<p>We will implement a comprehensive performance management process that:</p> <ul style="list-style-type: none"><li>• Leverages Workday to automate usage.</li><li>• Enacts manager training.</li><li>• Ensures cross-functional alignment.</li></ul>



ENVIRONMENTALLY  
RESPONSIBLE

As we strive to position ourselves as a world-class organization, we recognize the importance of embracing sustainable practices and contributing to a better future. Environmental stewardship is one of our core values and we are committed to minimizing our impacts and protecting the natural environment.

ENVIRONMENTAL STEWARDSHIP

We aspire to have a favorable impact on the environment, are constantly innovating and improving our products, and use resources responsibly and efficiently.

[Climate change](#) and [biodiversity](#) loss are two of society’s greatest challenges. We are committed to playing our part and to reducing our environmental impact every day. We are setting a strong foundation by measuring and understanding our impact across our operations and our value chain. In 2023, we developed our baseline, which will enable us to set science-informed, short- and long-term targets to monitor, track and report on our progress on material environmental topics, including [GHG](#) and other emissions, waste, water and biodiversity.

Many Vibrantz products provide impactful solutions to today’s environmental challenges, including providing essential components for EVs and other materials that support the transition away from [fossil fuels](#). We have a responsibility to innovate and develop products with a lower environmental footprint and provide sustainable solutions for customers. Find a more detailed overview of how we are working with our value chain in the [Ethically Centered section](#). This section gives an overview of progress on environmental topics and our plans for 2024.

CLIMATE CHANGE AND CARBON

We support the [Paris Agreement](#) and actions to limit global temperature increases to well below 2 °C, and ideally no more than 1.5 °C above pre-industrial levels, by the end of this century. We can contribute by measuring and reducing our GHG wherever possible across our value chain and offer products and services that support the transition to a low-carbon world. We are proud of our progress and acknowledge we have room to improve to ensure we meet our goals.

The CSR Council is responsible for developing the strategy for climate risk and decarbonization. The Environment and Systems subcommittee facilitates engagement with operations.



# GHG EMISSIONS

During 2023, we undertook a comprehensive Scope 1 and 2 GHG emissions assessment of our global operations, including manufacturing facilities and offices. This assessment estimated the 2022 GHG emissions associated with our direct operations and will form the baseline for our short-, medium- and long-term decarbonization goals, which are under development. We have also commenced data gathering for our Scope 3 baseline. The collation of this data will allow the development of a thorough and underpinned carbon management plan to be finalized in 2028.

Vibrantz’s 2022 direct emissions (Scope 1) were 322,131 tons of carbon dioxide equivalent (tCO<sub>2</sub>e). The majority of these Scope 1 emissions are associated with the use of natural gas and coal, which are currently integral to some of our materials processing operations. The market-based emissions from electricity and district heating or purchased heat/cooling (Scope 2) were 150,437 tCO<sub>2</sub>e in 2022. These totals do not include process emissions.

2022 BASELINE	tCO <sub>2</sub> e	% OF SCOPE 1 AND 2 GHG EMISSIONS
Scope 1	322,131	68.2%
Scope 2	150,438	31.8%
Total	472,569	



Q&A WITH QIAN SHEN  
Director EHS, APAC

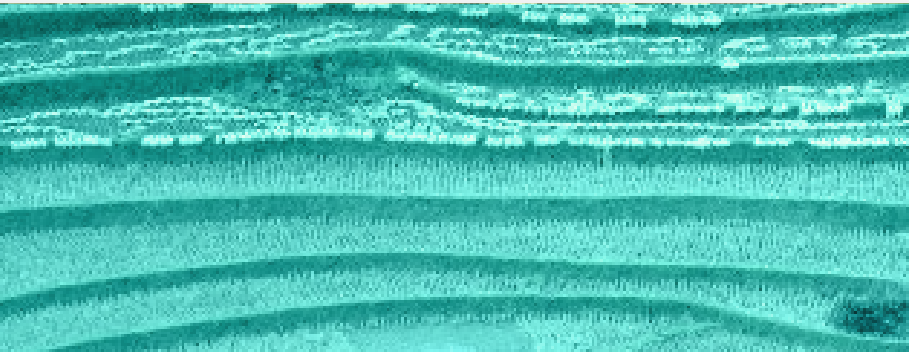
## How did we advance our understanding of climate and carbon in 2023?

During 2023, we:

- Established a sustainable environment and systems subcommittee tasked with developing operational awareness of carbon and climate.
- Collected and tracked the climate- and carbon-related environmental data from global operational sites for 2022 and 2023.
- Set 2022 as the baseline to identify opportunities to reduce Scope 1 and 2 emissions.
- Commenced site-based energy saving programs to improve our overall energy efficiency through initiatives such as upgrading to more efficient equipment or processes.

## What are our biggest opportunities to reduce carbon emissions?

We use coal at a few of our sites. We will look to reduce coal consumption where feasible, however this is highly dependent on the availability of natural gas. We aim to improve operational energy efficiency and identify more opportunities to use renewable energy across our manufacturing footprint.



RECENT PROGRESS TO REDUCE GHG EMISSIONS

As we continue to improve the measurement of our GHG emissions, we also understand the importance of making immediate reductions where possible. We have challenged each business unit to identify best practices and future opportunities with a focus on energy and process efficiency. Recent highlights include:

- Our Baltimore site installed new catalysts on the furnace and roaster utilized in the calcining process. This resulted in a 7% (furnace) and 19% (roaster) decrease in natural gas usage per ton of product produced and a 33% reduction in nitrogen usage.
- Our Barcelona, Llodio and Girardota sites source 100% renewable electricity. Our Montevideo site also sources 90% renewable electricity, while several others are sourcing at least partial renewable electricity.
- Our Johannesburg and Maastricht sites utilize their own solar power systems for some of their energy requirements.
- The basis for the design of our new Pearls plant at our Sittard facility has a low-carbon footprint due to its use of heat pumps, solar roof and solar water heaters, among other systems.
- Our sites at Menen, Zibo and St. Dizier have installed heat recovery systems.
- Our Ubersetto site has recently completed a multi-year project to ensure the total elimination of natural gas use, including the installation of several high-efficiency heat pumps.
- Our Almazora site installed specialized compressors on certain equipment resulting in an annual electricity savings of around 1,353 Mwh/year.
- Our Burslem site installed agitator timers on glaze storage tanks, reducing the energy usage involved with the equipment by 75%, creating substantial cost and carbon savings.
- Many sites replaced traditional light bulbs with light-emitting diode (LED) bulbs either partially or facility wide. Many also installed motion sensors to improve lighting system efficiency.

OUR KPIs

While there is a substantial ongoing scope of work to formalize our long-term carbon goals and management plan, we recognize the importance of making immediate progress toward reducing GHG emissions. Accordingly, we set a short-term KPI to reduce our total Scope 1 and 2 carbon emissions by 4% by the end of 2025 while we develop a longer-term strategy and targets. This will allow us to make meaningful progress on our decarbonization journey.

METRIC	VALUE	BASELINE YEAR/ TARGET YEAR
Total Scope 1 and 2 emissions reduction	4%	2022/2025
Long-term Scope 1 and 2 reduction target set	By end of 2024	N/A
Carbon management plan and all scope targets set for high priority sites	By end of 2026	N/A





## CLIMATE RISK

The physical risks associated with the impacts of climate change are already being felt in many of the countries in which we operate and source raw materials. These risks include chronic shifts in climate patterns, such as water scarcity and more frequent and intense heat waves, and acute adverse weather events such as cyclones, hurricanes or floods. This is also creating a changing social, economic and political climate as we transition to a lower-carbon economy, presenting us with potential transition risks and opportunities.

In 2023, we commenced an initial assessment of our climate-related risks, while also identifying opportunities where our products can help our customers transition to a lower-carbon economy. We undertook a high-level review of where our operations are situated in areas of current or future water stress and also took steps to better understand our risk profile. We considered several key climate change impacts in light of our dependencies on nature (WWF Biodiversity Risk Filter). We continue to expand our understanding of the specific climate-related risks and opportunities relevant to our business and will embed future processes that support how we manage this area moving forward.

## HOW OUR PRODUCTS SUPPORT A TRANSITION TO LOW-CARBON SOCIETY

Several of our products are vital in supporting the global transition to a lower-carbon economy and we are focused on expanding our impact in these markets. As the global fight against climate change intensifies, our need for sustainable transport and energy solutions continues to evolve. Vibrantz supports this effort through two key markets:

- We partner with battery industry customers to meet their evolving needs as mobility technologies continue to influence consumer goods and portable batteries. As the only manganese chemical supplier with manufacturing locations in the U.S., Europe and China, we help the global battery market achieve high energy density, maximum power, longer calendar life and low failure rates.
- We support the expanding renewable energy market. From the glass used in solar panels to the coatings used on wind turbines, our materials help support the global transition away from dependence on harmful fossil fuels. Highlights include:
  - We offer glass enamels to improve power generation efficiency of solar panels and the shelf life of battery packs.
  - Our global R&D team has developed a specialty, high reflectivity white enamel for application on laminated glass used to enhance solar panel performance.

Read more detail about our 2024 low-carbon society plans in the [“Opportunities” section](#)

## AIR QUALITY (NON GHGs)

Air pollutants have the potential to cause negative effects on human and environmental health. We are taking effective steps to reduce the release and associated impacts of airborne pollutants. We are improving our internal reporting processes to ensure air pollutant emissions –including nitrogen oxides (NOX), sulphur oxides (SOX), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) – are recorded and reported for all production facilities in line with SASB guidelines. The management and removal of pollutants is also a key part of existing compliance processes in effect accross our sites.





# WASTE AND CIRCULAR ECONOMY

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. Key to these improvements is identifying opportunities to reuse or recycle materials in our production processes and limit the potential for waste materials in the lifecycle of our portfolio.

Our focus in 2023 was on improving the recycling rates at many of our facilities. Initiatives focused on better waste segregation and increasing awareness. This included the implementation of manufacturing process efficiencies. We are also in the process of improving our data quality and availability for waste materials and disposal processes to ensure better measurement and the identification of opportunities to reuse and recycle more waste materials. This process is nearly complete and ready to undergo detailed quality assurance. We expect to publish this information in Q2 of FY 2024/25 in a supplement to this report.

Participating in the circular economy is an important topic for many of customers and collaboration is critical as we work to embed more circularity into our value chain. We are continually looking to innovate product and packaging solutions to address the waste issues our customers face. We provide infrared reflective pigments for use in dark plastic products that also meet food contact regulations. Roughly 30% of the world's plastics are black, making them difficult to detect in today's recycling facilities. NIR-detectable black pigments ensure black plastics are detectable, promoting recycling and lessening unnecessary waste.

## Suzhou plant waste lime recycling

The installation of air mixing equipment to homogenize the valuable elements inside the waste lime produced has enabled these materials to be utilized in on site processes, which reduces the hazardous waste generated. Currently the recycling rate is at **37%** but this is expected to increase.







## WATER AND WASTEWATER MANAGEMENT

Water is an important resource and also vital to our business operations. We are taking steps to reduce our water usage and increase efficiency to protect water resources for the resilience of our business, communities and the environment. This also includes the continuation and improvement of measures to ensure the effective processing and release of wastewater.

In 2023, we gathered operational water use data to better understand our demands, high use areas and opportunities to improve efficiency. We are finalizing our 2023 usage data collation and a detailed quality assurance process will be completed. We intend to publish the data in Q2 of FY 2024/25 in a supplement to this report. The challenges associated with water are localized with factors causing or mitigating water stress varying between different water basins and regions. We completed a water risk analysis to understand which of our operational sites are situated in areas of water stress globally utilizing the Aqueduct Water Risk Atlas. As we continue to identify methods of reducing our water use, sites in areas of high or very high water stress will be prioritized.

While we are improving data quality around our global water use, we continue to implement site initiatives to improve water resource efficiency. Recent initiatives include:

- Our Cleveland site launched a non-contact water cooling capital project that will save roughly \$280,000+ in annual water utility costs.
- Our Zibo site upgraded the stain workshop wastewater treatment facility to reduce chromium and hexavalent chromium levels well below national standards.
- Our Maastricht and Sittard sites engineered a wastewater treatment system based on heat recovery.
- Our St. Dizier site operates a water treatment plant and a closed-circuit water cooling system for engobes.
- Our Kuala Lumpur site upgraded the effluent treatment system to reduce freshwater usage and wastewater contaminants.
- Our Ubersetto site uses purified water in liquid products thereby nearly eliminating water waste.
- Our Llodio site completed a project to ensure minimal wastewater is discharged to the river.

# 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.

During 2023, we progressed a biodiversity risk assessment across all our operational sites, to help screen the nature-related risk profile of our global operations. The combined use of specialized tools, such as Encore and the WWF Biodiversity Risk Filter, assessed the potential impact we have on nature and assessed how our operations depend on nature to function effectively. Our most likely dependencies include ground and surface water and climate regulating services, particularly those associated with physical climate change impacts. We are reviewing ways to improve our water use efficiency, including reuse innovations in our existing production processes. More work is needed to define the materiality of relevant dependency risks to our global business due to the highly location-specific nature of such risks.

We found that our most likely impacts on nature are pollution (water, soil or air) and GHG emissions. This reinforces the importance of our work to reduce GHG emissions and develop a credible decarbonization pathway, along with our pollution control and compliance processes. The analysis highlighted that 11 of our sites are within close proximity to protected areas (IUCN Category I – IV) and two are close to key biodiversity areas. These sites will be prioritized in any further reviews to establish impact and dependency pathways due to their vicinity to sensitive ecological locations. [See GRI table for further details.](#)

Further steps are required to fully define our nature-related risk and opportunity profile, particularly involving our supply chain. We will continue to focus attention on the following areas to ensure we are making practical short-term contributions, including:

- Reducing our GHG emissions where feasible.
- Ensuring effective pollution management.
- Better understanding our operations in water scarce areas and prioritizing water efficiency measures.





# OPPORTUNITIES AND FUTURE FOCUS AREAS

## ENVIRONMENTALLY RESPONSIBLE

Carbon	In 2024 we will develop our carbon management plan and work toward our short-term targets.
Climate risk	Define risks and opportunities associated with climate change.
Waste and circular economy	Improve data reporting on waste generation and disposal routes.
Air pollution	Improve data quality around NOX, SOX, VOC and particulate matter.
Water and wastewater management	Improve quality of water use data collection. Identify water-use hotspots and where feasible, set use-reduction and efficiency targets.
Nature and biodiversity	Better understand nature and biodiversity risks and opportunities.

# FINANCIALLY DISCIPLINED

As part of CSR efforts, we recognize the synergistic effects of dedicating a balanced focus to our stakeholders and hold one another accountable for making decisions in ways that consider more than financial gain alone. We take pride in our company's 2023 performance across many aspects of our business as we worked to integrate and build the foundation for a strong continuous improvement mindset in all we do.

## MANAGEMENT APPROACH

Our sustainable corporate strategy and long-term objectives are set and directed by our Vibrantz leadership team 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

During another tumultuous year around the world and particularly in the chemicals industry, the Vibrantz team navigated demand weakness in many of the end-markets we serve. Despite lower demand, we continued providing excellent service to customers while also continuing our large-scale integration efforts. During the year, we delivered strong revenue and earnings and maintained healthy earnings margins.

In 2023, we acted with agility and precision to streamline operations and drive productivity improvements that helped us navigate dynamic economic headwinds and be well positioned for growth when our markets do recover.

**MICHAEL TURNER, EVP AND CFO**

We also strategically advanced three of our core values – People, Customers and Excellence – to drive improvements and savings. In 2023, we:

- Captured \$60+ million in cost synergies by continuing to integrate and optimize as one company.
- Migrated onto a single Microsoft Office365 platform, began the initial phase of our transition to SAP's S/4HANA enterprise resource management system, and harmonized our IT security processes and protocols.
- Launched Workday as our single HRIS globally.
- Completed our Shared Vision process, under the direction of our Board of Managers, to identify significant organic growth opportunities in the near and longer term, with a focus on key trends shaping societal and consumer needs like digitization and connectivity, climate change and policy, and urbanization.
- Made key technology advancements in:
  - Reflective pigments that improve sorting and recyclability of dark plastics and energy efficiency of buildings.
  - Our Pearls eco-friendly tinting solution by expanding production at our facility in Sittard, Netherlands.
  - The pilot production of our high-purity manganese sulfate at our Tampico site, which is used in lithium-ion batteries.

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 global procurement team continues to set the standard for excellence and innovation. Our recently established sustainable procurement policy underscores our dedication to sustainability and ethics. Our team is committed to identifying cost efficiencies and integrating sustainable and ethical practices into every aspect of our work.

**JIM O'DAY, SENIOR VICE PRESIDENT OF PROCUREMENT**





# OUR SHARED VISION COMMITMENT TO GROWTH

Vibrantz’s Shared Vision details our growth plans for the next three to five years considering macro and market trends with our core competencies and product development opportunities. For us, Shared Vision includes three core elements:

- **Growth vision:** We are focused on commercial opportunities that enable us to grow our core businesses, enhance our impact on the global energy transition and reduce our environmental footprint. We will also continue investing in strategic acquisitions and optimizing our work.
- **Growth commitment:** By 2025, we will grow revenue and earnings by focusing on four key near-term and four key longer-term priorities.
- **Resources:** Our people, systems and processes across our business units remain integral as we work to achieve this growth and focus on continuous improvement.

Among many exciting growth technologies, our Shared Vision priorities detail key near- and longer-term opportunities that align with our core competencies and key macrotrends.



Advanced Materials	<b>Defend and grow electronic materials</b> Leverage core products to pursue growth globally
Color Solutions	<b>Cross-selling</b> Develop pipeline of cross-selling opportunities
	<b>Cross-region application transfer</b> Identify applications that can be sold in new regions
Performance Coatings	<b>Porcelain enamel geographic expansion</b> Expand our positions in underrepresented applications



Advanced Materials	<b>Li-ion batteries</b> Become leading Western supplier of battery-grade manganese sulfate
	<b>Silicon carbide (SiC) polishes for EV sensors</b> Develop SiC polishes to support EV sensors
Color Solutions	<b>Pearls</b> Drive adoption, increase production capacity, accelerate growth through a defined go-to market strategy
Performance Coatings	<b>Digital Inks</b> Penetrate broader digital inks market



# EXCITING AND IMPACTFUL GROWTH TECHNOLOGIES

## ADVANCED MATERIALS

### HIGH-PURITY MANGANESE SULFATE FOR BATTERIES

#### MARKET DRIVER

EV production growth requires precursor materials for battery manufacturing that use high-purity manganese as a critical input, which is largely supplied by Chinese producers today. Particular to automakers, the U.S. Inflation Reduction Act includes tax credits and measures designed to encourage EV sales and the use of domestic materials and parts throughout the auto industry.

#### VIBRANTZ SOLUTION

- Manganese-based materials are a sustainable and cost-effective way to improve the safety, longevity and thermal stability of batteries.
- Vibrantz is the most experienced and only western producer of high-purity manganese sulfate monohydrate (HPMSM).
  - A recent Sphera LCA on behalf of the International Manganese Institute showcased the ultra-low carbon footprint of our HPMSM out of our Mexico and Belgium sites.
  - We aim to become a leading western supplier of HPMSM for EV battery production and the supplier of choice for manganese chemicals for the rechargeable battery market.
  - We are driving supply chain stability via expanded HPMSM production in Mexico and a long-term manganese ore partnership with Eramet.



We are a reliable producer of sustainable battery-grade manganese sulfate that is committed to advancing the global energy transition.

**ZOE OLLAGNON, STRATEGY AND PRODUCT MANAGER, RECHARGEABLE BATTERIES**

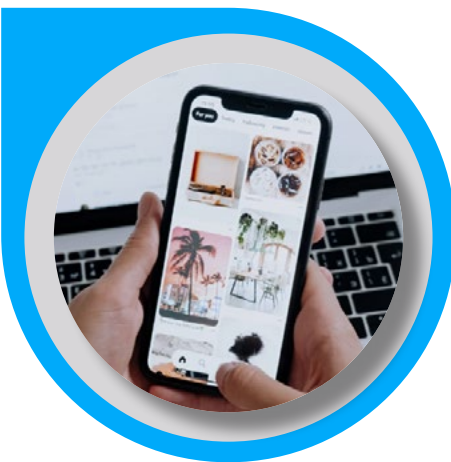
### SURFACE POLISHING TECHNOLOGIES FOR NEXT-GEN SEMICONDUCTORS

#### MARKET DRIVER

The global semiconductor industry is projected to become a trillion-dollar industry by 2030<sup>1</sup>. Compared to conventional semiconductors made of silicon, those made of SiC process electricity more efficiently, particularly in battery applications for EV manufacturers where SiC-based semiconductors improve battery control and save energy, greatly increasing EV range. SiC also has the potential to significantly impact fifth-generation (5G) electronics applications for mobile network providers, smartphone manufacturers and automation due to their ability to enable faster speed switching and minimize heat loss and their incredibly compact size.

#### VIBRANTZ SOLUTION

- Vibrantz's expertise in chemical mechanical planarization technology enables high-yield processes for next-gen and 5G devices through slurries that improve polishing capability and minimize defects in chips and sensors. SiC-based semiconductors:
- Are 10 times smaller than traditional semiconductors made of silicon.
  - Enable up to 50% less heat loss, leaving more energy for charging.
  - In batteries can enable 10% to 15% more range for an EV and the installation of smaller batteries.
  - Have the potential to enable faster charging of devices, wireless charging and high-speed server processing.



<sup>1</sup>[The semiconductor decade: A trillion-dollar industry | McKinsey](#)

# EXCITING AND IMPACTFUL GROWTH TECHNOLOGIES

## COLOR SOLUTIONS

### DURABLE COMPOSITES FOR VEHICLE MATERIAL LIGHTWEIGHTING

#### MARKET DRIVER

Governments worldwide continue implementing stricter regulations to reduce emissions and promote sustainable mobility. This means automakers must explore lightweight materials such as thermoset composites for sheet molding components that meet environmental and performance requirements. Ultraviolet (UV) stability is critical in thermoset plastics for vehicle applications because constant exposure to sunlight and weather can cause unprotected composites to degrade and lose structural integrity over time.

#### VIBRANTZ SOLUTION

Our UVSolutions® pigment dispersion technology is engineered for use in fiber-reinforced plastics to enhance durability against harsh and prolonged weather exposure.

- UVSolutions are increasingly used in composite applications for truck beds and tailgates.
- UV-stable composites are engineered to maintain their original glossy or matte black finish through years of weather exposure.
- We continue innovating in line with key automotive industry trends, like the desire to reduce weight and improve fuel efficiency.



Our UVSolutions enable customers to replace traditional metal materials with lighter, more durable options that help vehicle exteriors last longer.

**ALISON CLARK, COMMERCIAL VICE PRESIDENT, COLOR SOLUTIONS**

### INFRARED REFLECTIVE PIGMENTS TO IMPROVE PLASTIC RECYCLING

#### MARKET DRIVER

Infrared technology used at plastic recycling operations makes it hard to detect plastics colored with traditional carbon black pigment, causing recyclable plastics to be unnecessarily discarded and sent to landfills. Plastic pollution today is undeniable, with an estimated 14 million metric tons entering oceans annually<sup>1</sup>.

#### VIBRANTZ SOLUTION

Our infrared pigments reflect light, making them easily detectable in recycling operations. They also:

- Meet food contact and FDA regulations.
- Promote cost-effective, accurate recycling.
- Help minimize global plastic pollution.



<sup>1</sup>IUCN Issues Brief. [Marine plastic pollution – resource | IUCN](#)



# EXCITING AND IMPACTFUL GROWTH TECHNOLOGIES

## COLOR SOLUTIONS

### REFLECTIVE PIGMENTS TO IMPROVE BUILDING ENERGY EFFICIENCY

#### MARKET DRIVER

The use of air conditioning (AC) for residential and commercial use is increasingly common, putting enormous strain on electricity systems and making cooling the fastest growing use of energy in buildings<sup>1</sup>. High energy costs also increase the need for lower-cost and more efficient cooling options. Architectural and construction markets continue to seek eco-friendly and energy efficient building materials.

#### VIBRANTZ SOLUTION

Our reflective pigments and dispersions:

- Improve building energy efficiency by up to 20%.
- Reduce AC consumption, lowering energy bill costs.
- Increase the durability of exterior coatings.



<sup>1</sup>IEA (2018), [The Future of Cooling](#), IEA, Paris.

### PEARLS ECO-FRIENDLY TINTING SOLUTION

#### MARKET DRIVER

Traditional tinting solutions for liquid colorants found at point-of-sale kiosks in retail stores often contain controversial additives like biocides and humectants, utilize messy dispensing processes, and contain colorants that cause paint to dry and thicken, wasting roughly 5% – 10% of paint can contents. Global regulations continue to encourage colorant producers and retail paint stores to seek more eco-friendly options that still enable high-performing end-use paint. Yet many of today's "greener" colorants create paint that do not perform as well or last as long as traditionally tinted paint.

#### VIBRANTZ SOLUTION

Pearls is the first volumetrically dosed tinting system of solid colorants for water-based architectural and industrial applications that is eco-friendly and high-performing. Pearls is:

- A biocide-free technology made with 100% recyclable packaging.
- An accurate, low maintenance and cost-effective alternative.
- Easier to use due to simplified equipment, reduced maintenance and cleaner overall process.



This game-changing technology substantially reduces costs and simplifies tinting processes in paint stores. Pearls' ease of use will change the daily habits of operators forever.

**MARTIJN KUNNEN , EMEA COMMERCIAL DIRECTOR AND GLOBAL STRATEGY DIRECTOR, COLOR SOLUTIONS**

# EXCITING AND IMPACTFUL GROWTH TECHNOLOGIES

## PERFORMANCE COATINGS

### CHEMICAL-FREE PORCELAIN ENAMELS FOR COOKWARE

#### MARKET DRIVER

Consumer commitments to sustainable products and overall well-being have driven the culinary landscape to offer cookware without “forever chemicals” (also known as perfluoroalkyl and polyfluoroalkyl substances, or PFAS) in the production of nonstick surfaces.

#### VIBRANTZ SOLUTION

Genuine porcelain enamel (PE) has been a staple of ceramic coatings for cookware for decades to resist corrosion from cleaners, abrasion and the wear of daily use. PE differs from heavily advertised “ceramic-coated” cookware that often contains solvents because it is derived from naturally occurring minerals like rock and clay.

- Our PE coatings are made without lead and PFAS.
- Several of our products for cast iron cookware satisfy European food contact tests and comply with ISO 4531.



As our products make their way to homes around the world, we embrace the responsibility to deliver genuine porcelain enamel coatings that prioritize safety and longevity.

**ARIANE VENTURA , COMMERCIAL DIRECTOR  
SOUTH AMERICA, PERFORMANCE COATINGS**

### ENGINEERED INKS FOR DIGITAL PRINTING

#### MARKET DRIVER

Manual screen printing techniques are difficult for large-scale production, labor intensive, require skilled personnel and specialized equipment, and risk inconsistent results. At the same time, home and decorative applications – particularly for appliance and structural glass, and ceramic dinnerware – are increasingly using novel printing techniques to achieve quick, stylish, affordable and durable design.

#### VIBRANTZ SOLUTION

Compared to traditional glass decoration methods, digital printing enables flexibility in project size, precise application, less waste, rapid turnaround, streamlined production and unlimited options for image reproduction. Digital printing also leverages light and heat technology to boost ink's protective properties on almost any substrate. Vibrantz digital inks are:

- Fortified with ceramic ingredients to ensure exceptional durability.
- Resilient against mechanical, environmental, UV and chemical exposure and damage.
- Comply with EU REACH 1907/200.



# 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, our current HPMSM at our Tertre, Belgium, facility and planned HPMSM at our Tampico, Mexico, facility. We also evaluated the production of manganese sulfate for agriculture (MnSO<sub>4</sub>) at our Tampico facility. In 2024, we intend to review our core key technologies including Pearls, Temacolor W, black infrared reflective pigments, bismuth vanadate, ultramarine blue, and manganese oxide.

By the end of 2025, we will complete a global EcoVadis supply chain assessment for each of our three business units and three operating regions.

# OPPORTUNITIES AND FUTURE FOCUS AREAS

FINANCIALLY DISCIPLINED	
Products	Conduct LCAs of existing product portfolio in addition to six key pilot products.
Green initiatives	Quantify the sustainability of our products.
Reporting and legal	Review upcoming global sustainability reporting requirements and develop plan in 2024 to comply with upcoming requirements.
Risk	Develop and launch EHS and operational risk review approach and strategy for Vibrantz globally.



As we conclude this inaugural CSR report, we celebrate a significant milestone in our journey toward become an enduring and sustainable world-class specialty chemicals and materials company. The accomplishments and progress made in 2023 underscore the collective efforts and commitment from every member of our organization. Looking ahead, we are excited for the opportunities to further integrate sustainability into our operations and expand our efforts to make a meaningful difference for all stakeholders and the communities we serve. Vibrantz will continue to be guided by our shared belief that we are the best versions of ourselves when we are positively impacting others. We invite you to follow our CSR journey by visiting [www.vibrantz.com](http://www.vibrantz.com), where you can learn about our latest initiatives, community partnerships and impactful projects. Stay connected with us as we work to ensure a thriving future by bringing color, performance and vibrancy to life.



# APPENDIX

## 2022 GHG SCOPE 1 AND 2 EMISSIONS BASELINE

During 2023, we undertook a comprehensive Scope 1 and 2 GHG emissions assessment of our global operations, including manufacturing facilities and offices. This assessment estimated the GHG emissions during the 2022 calendar year and will form the baseline for our short-, medium- and long-term decarbonization strategy. This baseline does not currently include process emissions.

We have embedded learning from our 2022 GHG emissions baseline to improve data collation and our decarbonization approach. We look forward to sharing our 2023 figures and further information on our long-term decarbonization strategy.

REPORTING PERIOD:  
JANUARY 1, 2022 – DECEMBER 31, 2022

SCOPE	EMISSIONS SOURCE CATEGORY	ACTIVITY		tCO <sub>2</sub> e
1	Heating and fuels	Natural gas		199,663
		Gas oil		174
		Propane		4,110
		Heating oil		115
		Petrol		163
		Diesel		1,513
		Coal (industrial)		106,674
		Petroleum coke		8,591
	Fugitive emissions	Refrigerant gasses		1,057
2	Emissions from purchased energy	Electricity consumption	Location-based	140,208
			Market-based	142,180
		Purchased heat/steam		8,050
TOTAL GHG EMISSIONS (LOCATION-BASED METHODS)				470,318
TOTAL GHG EMISSIONS (MARKET-BASED METHODS)				472,290

Table 1 – Vibrantz 2022 Scope 1 and 2 GHG emissions

From this exercise we are also able to estimate our energy usage during 2022. Some of the data was benchmarked or converted between different units before conversion to kWh. Please see further detail in Table 2.

SCOPE	ACTIVITY	kWh	
1	Natural gas	1,088,128,114	
	Gas oil	669,209	
	LPG/propane	19,196,397	
	Heating oil	431,199	
	Petrol	716,665	
	Diesel	6,275,798	
	Coal (industrial)	328,590,008	
	Petroleum coke	25,195,650	
2	Electricity	395,381,250	
	District heating	47,147,786	
TOTALS		SCOPE 1	1,469,203,041
		SCOPE 2	442,529,036
		OVERALL	1,911,732,077

Table 2 – Vibrantz 2022 estimated energy usage in kWh



# 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 2022 were 322,131 tCO2e. The Vibrantz 2022 baseline does not include process emissions. 0% of these emissions are under emission-limiting regulation. For further information on our 2022 greenhouse gas emissions and plans to decarbonize our operations please see page 37 and 38 of our 2023 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 37 and 38 of our 2023 CSR Report.
Air quality	Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	Quantitative	Metric tons (t)	RT-CH-120a.1	We aim to report quantitative metrics on air quality in future reports. For more information please see page 39 of our 2023 CSR Report.
Energy management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable and (4) total self-generated energy1	Quantitative	Gigajoules (GJ), Percentage (%)	RT-CH-130a.1	Please find detail on total energy consumed in Appendix 2022 GHG Scope 1 and 2 Emissions Baseline.
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 (m³), Percentage (%)	RT-CH-140a.1	We are in the process of finalizing our 2023 water usage which will be published in Q2 of FY 2024/25 in an addendum of the 2023 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 41 of our 2023 CSR Report.
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 finalizing our 2023 waste data which will be published in Q2 of FY 2024/25 in an addendum of the 2023 CSR Report.



SASB TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	METRIC CODE	PROPOSED REPORT SECTION
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 3 and 32 of our 2023 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	We have set targets on TRIR (page 19) which we will report in future CSR reports. For more information on our Health and Safety management and targets please see page 3 and 23 of our 2023 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 23 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 47-50.
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	We aim to include information on this in future CSR reports.
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	2023 CSR Report: 'About Vibrantz and this Report' - page 2; 'Vibrantz at a Glance' - page 7; 'Ethically Centered - Governance' - Page 20
2-2	Entities included in the organization's sustainability reporting	2023 CSR Report: 'About Vibrantz and this Report' - page 2
2-3	Reporting period, frequency and contact point	2023 CSR Report: 'About Vibrantz and this Report' - page 2
2-5	External assurance	See the following 2023 CSR Report sections for references to external assurance: 'CSR Mindset - Materiality Assessment' - page 14, 15 'Ethically centered - Supply Chain' - page 25
ACTIVITIES AND WORKERS		
2-6	Activities, value chain and other business relationships	2023 CSR Report: 'About Vibrantz and this Report' - page 2; 'About' Section - pages 7, 8, 9, 10
2-7	Employees	~4,000 employees worldwide (as of Q4 2023) 2023 CSR Report: 'About - Vibrantz at a Glance' - page 7
GOVERNANCE		
2-9	Governance structure and composition	2023 CSR Report: 'Ethically Centered - Governance' - pages 20, 21, 22
2-10	Nomination and selection of the highest governance body	2023 CSR Report: 'Ethically Centered - Governance' - page 20

2-11	Chair of the highest governance body	2023 CSR Report: 'Ethically Centered - Governance' - pages 20, 21
2-12	Role of the highest governance body in overseeing the management of impacts	2023 CSR Report: 'Ethically Centered - Governance', pages 20, 21, 22; 'CSR Mindset - Our CSR Council' - page 12
2-13	Delegation of responsibility for managing impacts	2023 CSR Report: 'Ethically Centered - Governance', pages 20, 21, 22; 'CSR Mindset - Our CSR Council' - page 12  Senior executives 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	2023 CSR Report: 'Ethically Centered - Governance', pages 20, 21, 22; 'CSR Mindset - Our CSR Council' - page 12  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	2023 CSR Report: 'Ethically Centered - Governance' - page 20
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.

GRI STANDARD	GRI DISCLOSURE	VIBRANTZ DISCLOSURE
<b>STRATEGY, POLICIES AND PRACTICES</b>		
2-22	Statement on sustainable development strategy	2023 CSR Report: 'Our CSR Commitment' – page 3; 'A Message From Our CEO' – page 4; 'CSR Mindset – SDG Alignment' – page 18.
2-23	Policy commitments	2023 CSR Report: Please see 'Ethically Centered – Governance' – pages 21, 22 for overview of approval process. For further detail, please refer to Vibrantz's 'Policies and Procedures' documents, available below at:  <a href="#">Sustainable Policy Statement</a> <a href="#">Supplier Code of Conduct</a> <a href="#">Sustainable Procurement Policy</a>
2-24	Embedding policy commitments	Please see 'Responsible corporate citizen' section on Vibrantz's website, as well as the 'Policies and Procedures' documents.  <a href="#">Sustainable Policy Statement</a> <a href="#">Supplier Code of Conduct</a> <a href="#">Sustainable Procurement Policy</a>
2-26	Mechanisms for seeking advice and raising concerns	2023 CSR Report: 'Ethically Centered – Business Ethics' – page 24
2-28	Membership associations	Please see list of industry associations which Vibrantz participates in below: Cookware and Bakeware Alliance National Glass Association International Enamellers Congress Porcelain Enamel Institute 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
<b>STAKEHOLDER ENGAGEMENT</b>		
2-29	Approach to stakeholder engagement	2023 CSR Report: 'About – Our CSR Commitment' – page 3; 'About Q&A –With Alison Landis' – page 5; 'CSR Mindset – Materiality Assessment' – page 14, 15, 16

2-30	Collective bargaining agreements	Below is a list of locations where 100% of union members are covered by 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.
<b>MATERIAL TOPICS</b>		
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 European Sustainability Reporting Standards (ESRS).  For more information, see: 2023 CSR Report: 'CSR Mindset – Materiality Assessment' – pages 14, 15, 16, 17
3-2	List of material topics	2023 CSR Report: 'CSR Mindset – Materiality Assessment' – page 17
3-3	Management of material topics	The various materiality topics identified in the materiality assessment and relevant management actions are addressed throughout the four core sections of this report, <a href="#">Ethically Centered</a> , <a href="#">Socially Connected</a> , <a href="#">Environmentally Responsible</a> and <a href="#">Financially Strategic</a> . Further summaries of commitments, actions and targets can be found in: 'CSR Mindset – Sustainable Development Goals': – page 18; 'CSR Mindset – Our Scorecard' – page 19



GRI STANDARD	GRI DISCLOSURE	VIBRANTZ DISCLOSURE																																										
TOPIC STANDARDS																																												
ECONOMIC PERFORMANCE																																												
201- Economic Performance 2016																																												
201-1	Direct economic value generated and distributed	2023 CSR Report: 'A Message From Our CEO' – page 4; 'About – Vibrantz at a Glance' – page 7; 'Financially Disciplined' – page 44																																										
205- Anti-Corruption 2016																																												
205-2	Communication and training about anti-corruption policies and procedures	100% of Vibrantz employees received the Vibrantz Code of Ethics. <a href="#">The Vibrantz Code of Ethics</a>																																										
ENVIRONMENTAL TOPICS																																												
302- Energy 2016																																												
302-1	Energy consumption within the organization	Total energy consumption estimate for 2022 included in 2023 CSR Report: 'Appendix – 2022 GHG Scope 1 and 2 Emissions Baseline'																																										
303- Water and Effluents 2018																																												
303-1	Interactions with water as a shared resource	2023 CSR Report: 'Environmentally Responsible – Water and Wastewater Management' – page 41																																										
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	2023 CSR Report: 'Environmentally Responsible – Nature and Biodiversity' – page 42																																										
		11 sites identified within close proximity to protected areas and 2 within close proximity to Key Biodiversity Areas, confirmation of sites 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>Bangkok</td><td>Thailand</td><td>Office</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>Onda</td><td>Spain</td><td>Manufacturing</td></tr> <tr> <td>Sittard</td><td>Netherlands</td><td>Manufacturing</td></tr> <tr> <td>Taipei</td><td>Taiwan</td><td>Office</td></tr> <tr> <td>Taoyuan</td><td>Taiwan</td><td>Manufacturing</td></tr> <tr> <td>Tsukuba</td><td>Japan</td><td>Manufacturing</td></tr> <tr> <td>Vallendar</td><td>Germany</td><td>Manufacturing</td></tr> </table>	Site	Country	Operations	Ayutthaya	Thailand	Manufacturing	Bangkok	Thailand	Office	Benicarlo	Spain	Manufacturing	Guara Oxidry	Brazil	Manufacturing	Johannesburg	South Africa	Manufacturing	Llodio	Spain	Manufacturing	Maastricht	Netherlands	Manufacturing	Onda	Spain	Manufacturing	Sittard	Netherlands	Manufacturing	Taipei	Taiwan	Office	Taoyuan	Taiwan	Manufacturing	Tsukuba	Japan	Manufacturing	Vallendar	Germany	Manufacturing
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Tsukuba	Japan	Manufacturing																																										
Vallendar	Germany	Manufacturing																																										

		2023 CSR Report: 'Environmentally Responsible - Nature and Biodiversity' - page 42
304-2	Significant impacts of activities, products and services on biodiversity	Vibrantz has completed an initial screening assessment of potential biodiversity impacts and has identified several target areas to mitigate potential impacts including reducing GHG emissions, ensuring effective pollution management and prioritizing water efficiency measures in water scarce operational areas.
305- Emissions 2016		
305-1	Direct (Scope 1) GHG emissions	322,131 tCO <sub>2</sub> e (metric tons of carbon dioxide equivalent) in 2022  Further details: 2023 CSR Report: 'Environmentally Responsible - Greenhouse Gas Emissions' - page 37; 'Appendix - 2022 GHG Scope 1 and 2 Emissions Baseline' - page 53
305-2	Energy indirect (Scope 2) GHG emissions	150,437 tCO <sub>2</sub> e in 2022  Further details: 2023 CSR Report: 'Environmentally Responsible - Greenhouse Gas Emissions' - page 37; 'Appendix - 2022 GHG Scope 1 and 2 Emissions Baseline' - page 53
306 - Waste 2020		
306-1	Waste generation and significant waste-related impacts	2023 CSR Report: 'Environmentally Responsible - Waste and Circular Economy' - page 40
306-2	Management of significant waste-related impacts	2023 CSR Report: 'Environmentally Responsible - Waste and Circular Economy' - page 40
308 - Supplier Environmental Assessment		
308-2	Negative environmental impacts in the supply chain and actions taken	2023 CSR Report: 'Ethically Centered - Supply Chain' - page 25
SOCIAL TOPICS		
401 - Employment 2016		
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	2023 CSR Report: 'Socially Connected - Improvements, Communications and Listening' - Page 28
403 - Occupational Health & Safety 2018		
403-1	Occupational health & safety management system	2023 CSR Report: 'Ethically Centered - Safety' - Page 23

GRI STANDARD	GRI DISCLOSURE	VIBRANTZ DISCLOSURE
<b>403 – Occupational Health &amp; Safety 2018</b>		
403-2	Hazard identification, risk assessment and incident investigation	2023 CSR Report: 'Ethically Centered – Safety' – Page 23
403-3	Occupational health services	2023 CSR Report: 'Ethically Centered – Safety' – Page 23
403-4	Worker participation, consultation and communication on occupational health and safety	2023 CSR Report: 'Ethically Centered – Safety' – Page 23
403-5	Worker training on occupational health and safety	2023 CSR Report: 'Ethically Centered – Safety' – Page 23
403-6	Promotion of worker health	All U.S. employees receive health benefits through Empyrean and 401k through Empower. Vibrantz also provides all global employees with an Employee Assistance Program.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	2023 CSR Report: 'Ethically Centered – Safety' – Page 23
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 2023 CSR Report: 'Ethically Centered – Safety' – Page 23.
<b>404 – Training and Education 2016</b>		
404-2	Programs for upgrading employee skills and transition assistance programs	2023 CSR Report: 'Ethically centered – Governance' – pages 21, 22; 'Socially Connected – Opportunities' – page 35, 'Socially Connected – Improvements, Communication and Listening' – page 30, 'Socially Connected – Talent Development Foundation' – page 34
<b>408 – Child Labour 2016</b>		
408-1	Operations and suppliers at significant risk for incidents of child labor	<a href="#">Code of Ethics: Our Workplace 'Human Rights' – page 5;</a> <a href="#">Supplier Code of Conduct: 'Labor Standards and Human Rights' – page 2;</a> 2023 CSR Report: 'Ethically Centered – Supply Chain' – page 26

<b>409 – Forced or Compulsory Labor 2016</b>		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<a href="#">Code of Ethics: Our Workplace 'Human Rights' – page 5;</a> <a href="#">Supplier Code of Conduct: 'Labor Standards and Human Rights' – page 2;</a> 2023 CSR Report: 'Ethically Centered – Supply Chain' – page 25
<b>413 – Local Communities 2016</b>		
413-1	Operations with local community engagement, impact assessments, and development programs	2023 CSR Report: 'Socially Connected – Employee Involvement Committees (EICs) & Community Impact and Philanthropy' – page 32
<b>414 – Supplier Social Assessment 2016</b>		
414-2	Negative social impacts in the supply chain and actions taken	2023 CSR Report: 'Ethically Centered – Business Ethics' – page 24; 'Ethically Centered – Supply Chain' – page 25
<b>416 – Customer Health &amp; Safety 2016</b>		
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	There were no health and safety product or service incidents related to non-compliance with regulations and/or voluntary codes in 2023.



## 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.

### **Diversity, inclusion and belonging (DI&B)**

Refers to fostering a workplace and community environment that embraces and values differences in characteristics such as race, gender, age, religion and other protected characteristics. Inclusion relates to developing a sense of belonging, value and acceptance for employees and teams, through support, development, communication and management practices. It involves actively promoting a culture where everyone feels respected, accepted and has equal opportunities for participation and progression.

### **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 form of heat or electricity, as well as carbon dioxide and water.

## 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>). 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.

## 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.

## Physical risks

The physical risks associated with climate change describe the physical impacts stemming directly from climate-related events, such as extreme weather events (e.g., hurricanes, floods, wildfires), rising sea levels and temperature changes. These risks can cause damage to infrastructure, disrupt supply chains and harm ecosystems, leading to financial losses and human suffering.

## Quality Assurance and Regulatory Affairs (QARA)

Department responsible for helping Vibrantz sites work toward ISO certification by focusing on the quality of our products and compliance with all regulatory frameworks associated with these products.

## 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 (tCO<sub>2</sub>e)**

The unit of measurement used to express the global warming potential of greenhouse gases in terms of the amount of carbon dioxide (CO<sub>2</sub>) 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.

### **Transition risks**

The potential costs to society of evolving to a low carbon economy to mitigate climate change. These are associated with policy and regulatory risks, technological risks, market risks, reputational risks and legal risks. Depending on the nature, speed and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organizations.

### **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.

### **Zero-emission automobiles**

Vehicles that produce no emissions of greenhouse gases or pollutants during operations. These vehicles typically rely on alternative power sources such as electricity or hydrogen fuel cells, thereby minimizing their environmental impact and contributing to efforts to reduce air pollution and combat climate change.