



Operationalizing Sustainability Through EHSMS

NAEM WEBINAR – 20 FEBRUARY 2024

Sustainability is our business

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Operationalizing Sustainability Through EHS Management Systems

Webinar Overview

- Sustainability and ISO/MS fundamentals
- Drill down on specific EHS management systems elements and their link to sustainability
- DuPont case study
- Q&A / discussion











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Sustainability is all about protecting and creating business value

Corporate Sustainability: Managing risks and exploiting opportunities associated with environmental and socio-economic issues

Development	Marketing	Operations	Finance	Human Resources	Sales	Procurement	Community Relations
							
Decrease project delays and risks by addressing environmental and social issues up front.	Leverage sustainability drivers to create new products and services that drive revenue growth and engage consumers who care about these issues.	Reduce material, water, waste and energy costs and create safe and healthy workplaces that drive productivity.	Lower interest rates and insurance premiums, improve ESG ratings, and attract investor capital through effective management of ESG issues.	Attract and retain top talent that is increasingly concerned about sustainability issues.	Win contracts and delight customers by demonstrating superior sustainability performance.	Stabilize availability and price of key inputs and reduce social and environmental risks.	Create better community investment outcomes and strengthen reputation and license to operate and grow.

The most important trends now



Responding to climate change



Valuing human capital



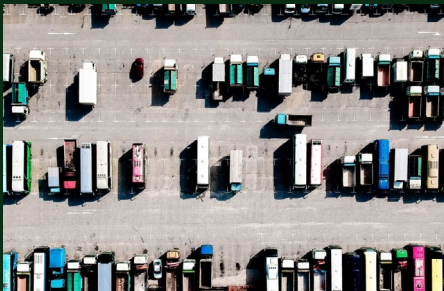
Safeguarding natural systems



Integrating ESG



Streamlining sustainability disclosure



Building sustainable and resilient supply chains



Enabling sustainable consumption and production



Applying technology to sustainability



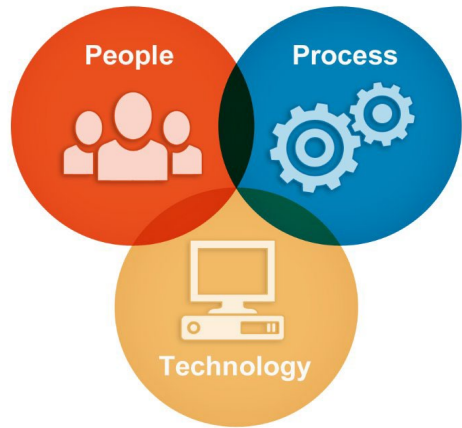
Respecting fundamental rights



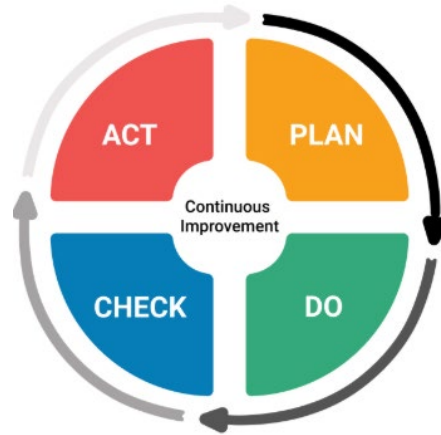
Navigating the evolving political landscape

Key EHSMS Elements

These things ...



... organized this way



What:

- Standardization and consistency
- Proactive risk management
- Continual improvement

How:

- Leadership
- Engagement
- Integration

Plan

- Identify and assess issues and risks
- Understand applicable regulations
- Define performance objectives
- Develop standards, programs, plans and controls
- Define roles and responsibilities

Do

- Deploy resources
- Assure competence of responsible personnel (includes training)
- Implement controls and manage day-to-day operations (including contractor and change management)
- Maintain communications and documentation/records

Check

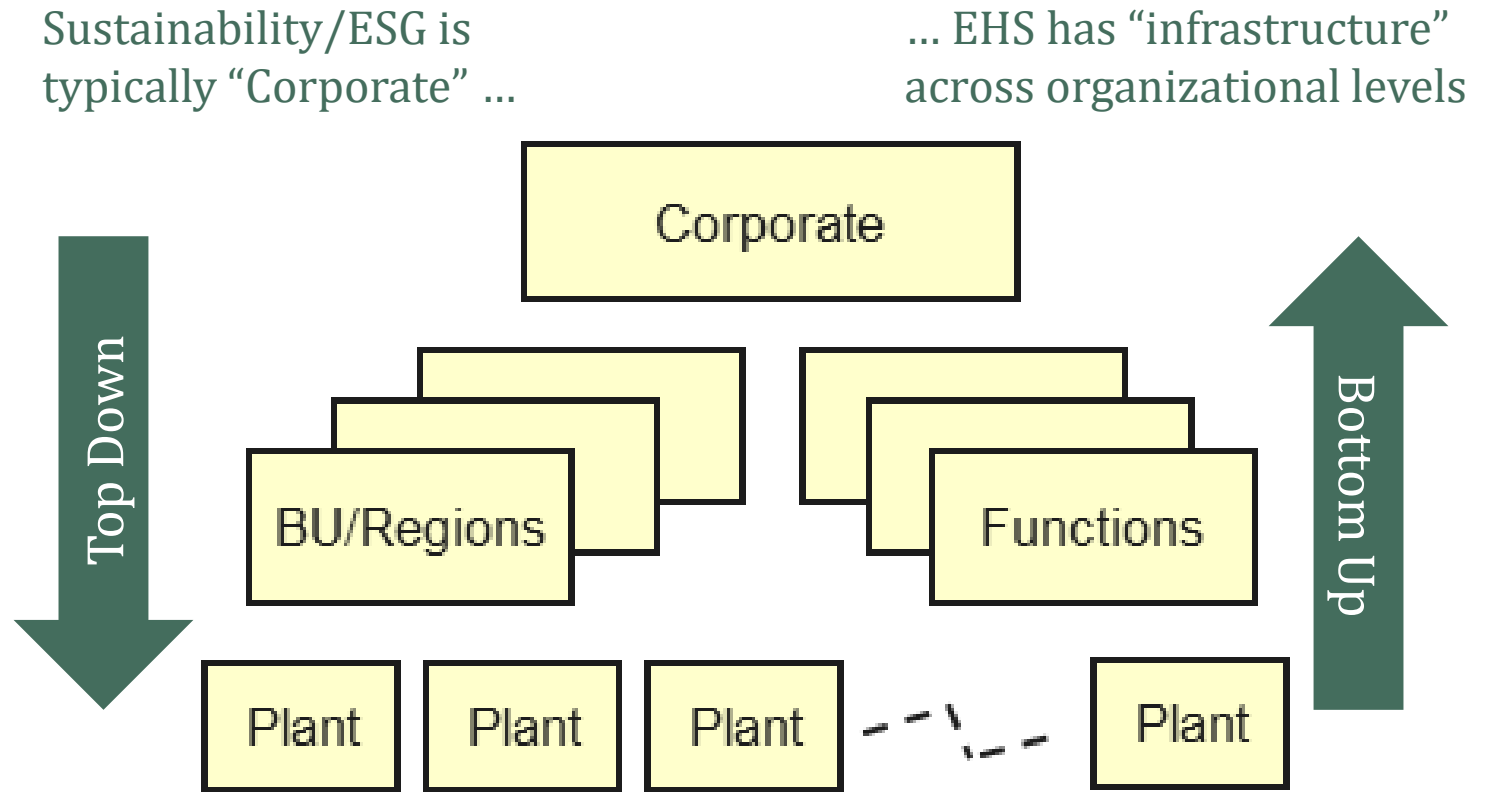
- Monitor performance (KPIs, sampling, inspections, audits, etc.)
- Analyze and report results

Act

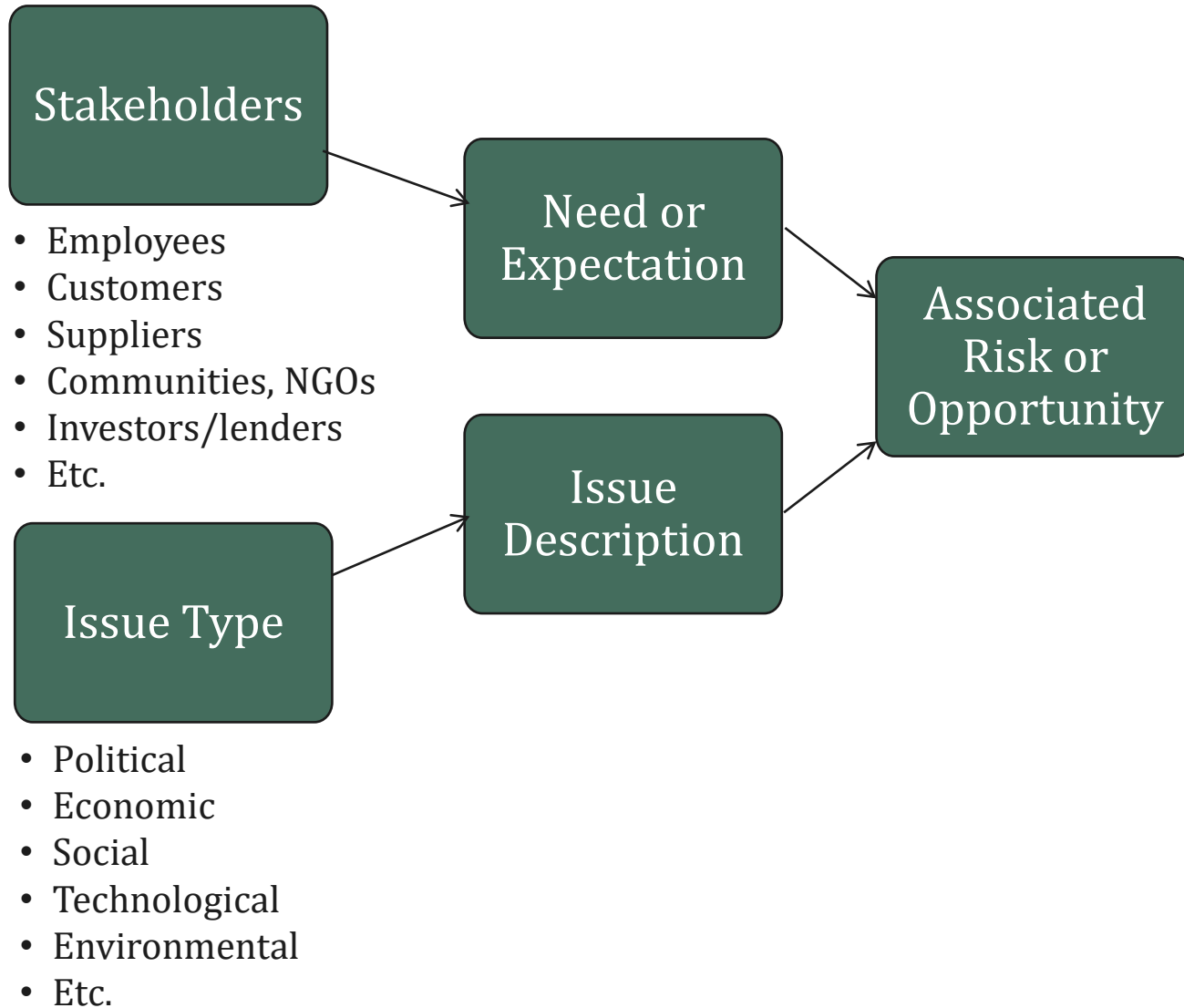
- Set improvement goals (programs and performance)
- Implement improvement actions

Key EHSMS Elements to Focus On

1. Context of the organization
2. Risk assessment
3. Goals, metrics and reporting
4. Change management
5. Operational control procedures
6. Training
7. Inspection and audits
8. Roles and responsibilities



1. Context of the Organization

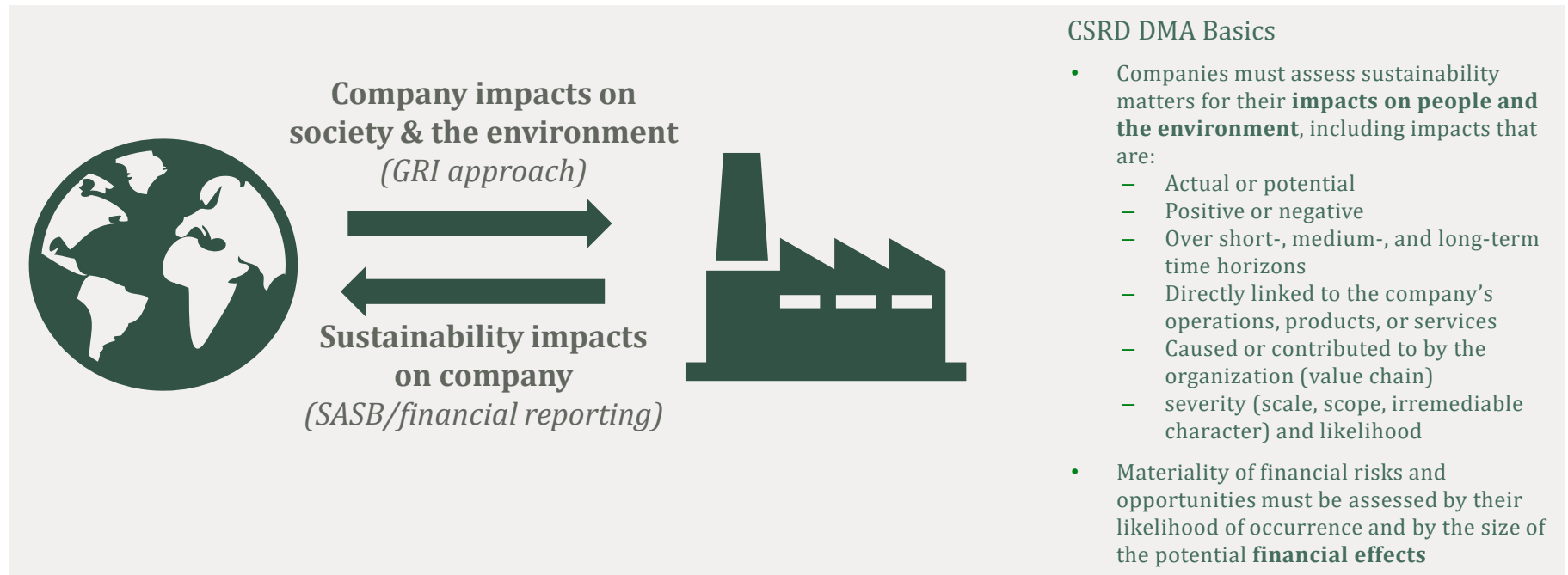


- **Link to materiality assessment**
- Leverage each way:
 - EHS can share “up” or “over” its Context of the Org to enable the materiality assessment
 - Materiality assessment research and stakeholder engagement can inform Context of the Org
- Especially valuable considering Context of the Org might have been done at site, region, business or enterprise levels.

2. Risk Assessment

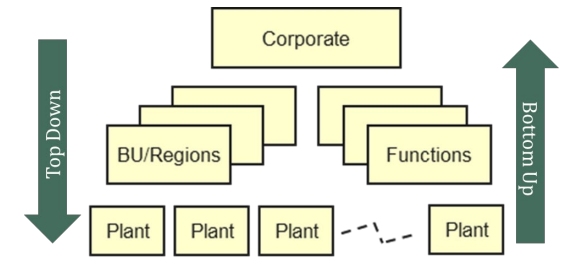
- Link to materiality assessment
- Leverage each way: ISO-style Aspect, Hazards, Risk Assessment (EHS ← → ESG)
- CSRD double materiality links to ISO even more than before

HAZARD, ASPECT, TOPIC		RISK ASSESSMENT						
#	Name	Frequency of Exposure	Severity of Consequences			Inherent Risk (calc)	Quality and Effectiveness of Existing Controls	Residual Risk (calc)
			People and Environment	Business	Total (calc)			
		1-4	0-3	0-3	d+e	c*f	1-4	i/g
					0	0		
					0	0		
					0	0		
					0	0		
					0	0		
					0	0		

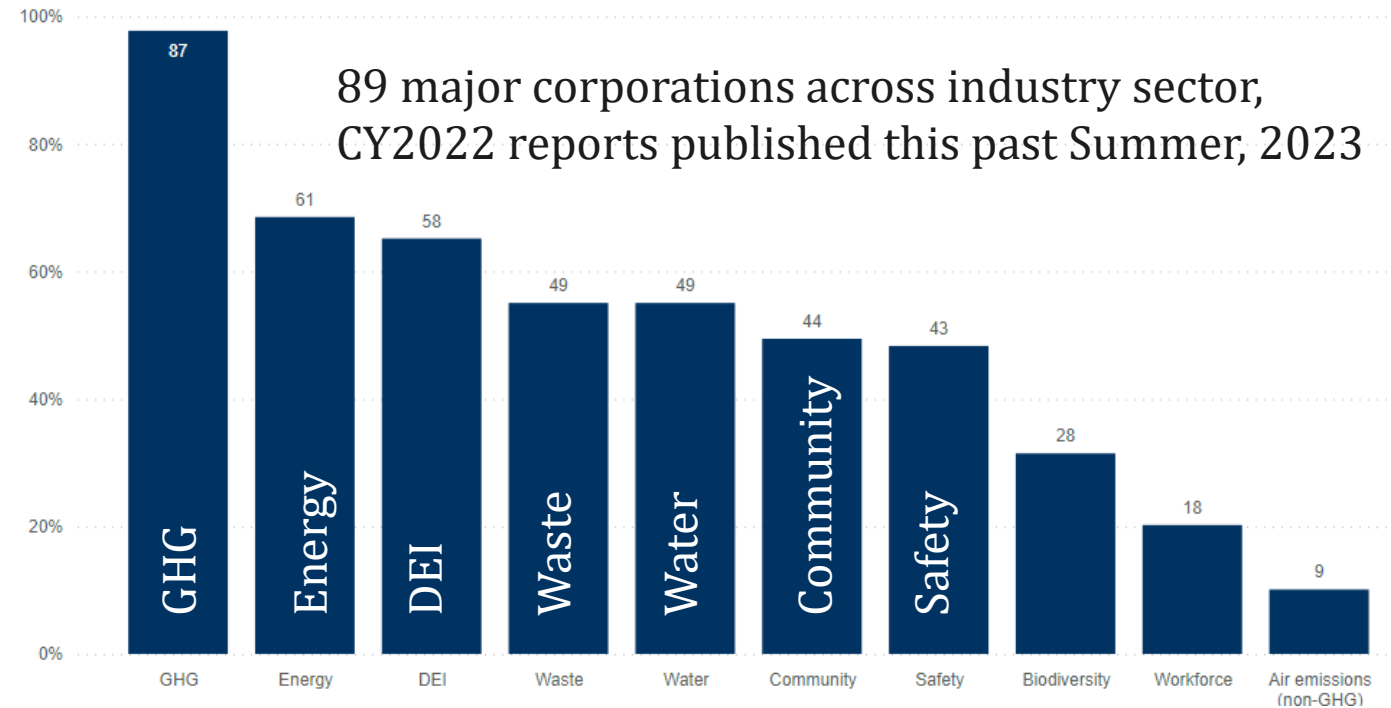


3. Goals, Metrics and Reporting

- EHS-related goals are the most common corporate sustainability/ESG goals
- A strictly top-down goal-setting approach can lead to unfunded mandates and unachievable goals
- EHS professionals have real insight into
 - Nature of the impacts
 - Extent to which they can be reduced
 - Operational and financial implications
- Leverage existing dashboards, enterprise EMIS tools and management reporting/review venues



Bottom-up input is critical!!



4. Change Management

- What is the scope of your due diligence process?
- What criteria are considered in new projects (CapEx, OpEx)
- What criteria are considered in new product development stage/gate processes?
- How hardwired/robust is it?



Source: British Chamber of Commerce

Other Processes

- Operational control procedures
- Training
- Inspection and audits
- Roles and responsibilities

DuPont Case Study

DuPont Now

Innovations to thrive

Alonzo Wharton | February 2024



◀ DUPONT ▶TM

**We empower the
world with the essential
innovations to thrive...**

Our core values



**Safety &
health**



**Respect for
people**



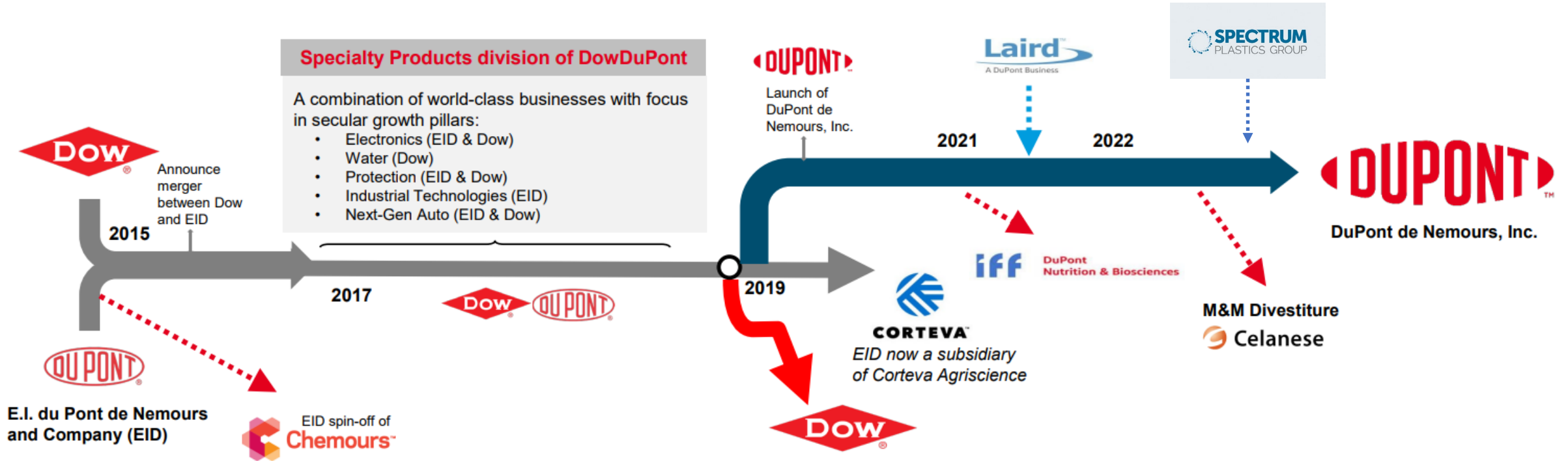
**Highest ethical
behavior**



**Protect the
planet**

A Significant Transformation

Creating a premier multi-industrial company



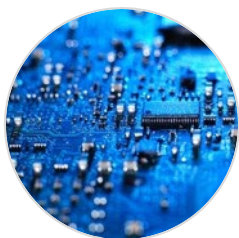
Phases	2017-19	2020-22	2023+
	<ul style="list-style-type: none"> • Execute complex merger / spin-offs • Establish our vision & strategic direction • Integrate & focus core businesses • Define cultural principles & management approach 	<ul style="list-style-type: none"> • Complete portfolio re-shaping • Deliver consistent results • Manage through the pandemic, inflation & supply chain constraints 	<ul style="list-style-type: none"> • Emphasis on organic growth • Next level Operational Excellence • Deliver shareholder value • Sustainability across the Enterprise • Develop our People



Note: Direction of dotted arrows in chart above indicates whether a company was acquired or divested.

Focused on five pillars with strong growth drivers

Empowering innovation with our leading technologies



Electronics

33%

of net sales¹

Enabling connectivity, smart technologies, and next-generation semiconductor chips and printed circuit boards



Water

12%

of net sales¹

Addressing water scarcity with solutions for clean water and sustainable use



Protection

22%

of net sales¹

Protecting workers and enabling sustainable buildings



Industrial Technologies

20%

of net sales¹

Specialized materials for demanding environments including healthcare, aerospace, defense, and clean energy



Next Generation Automotive

13%

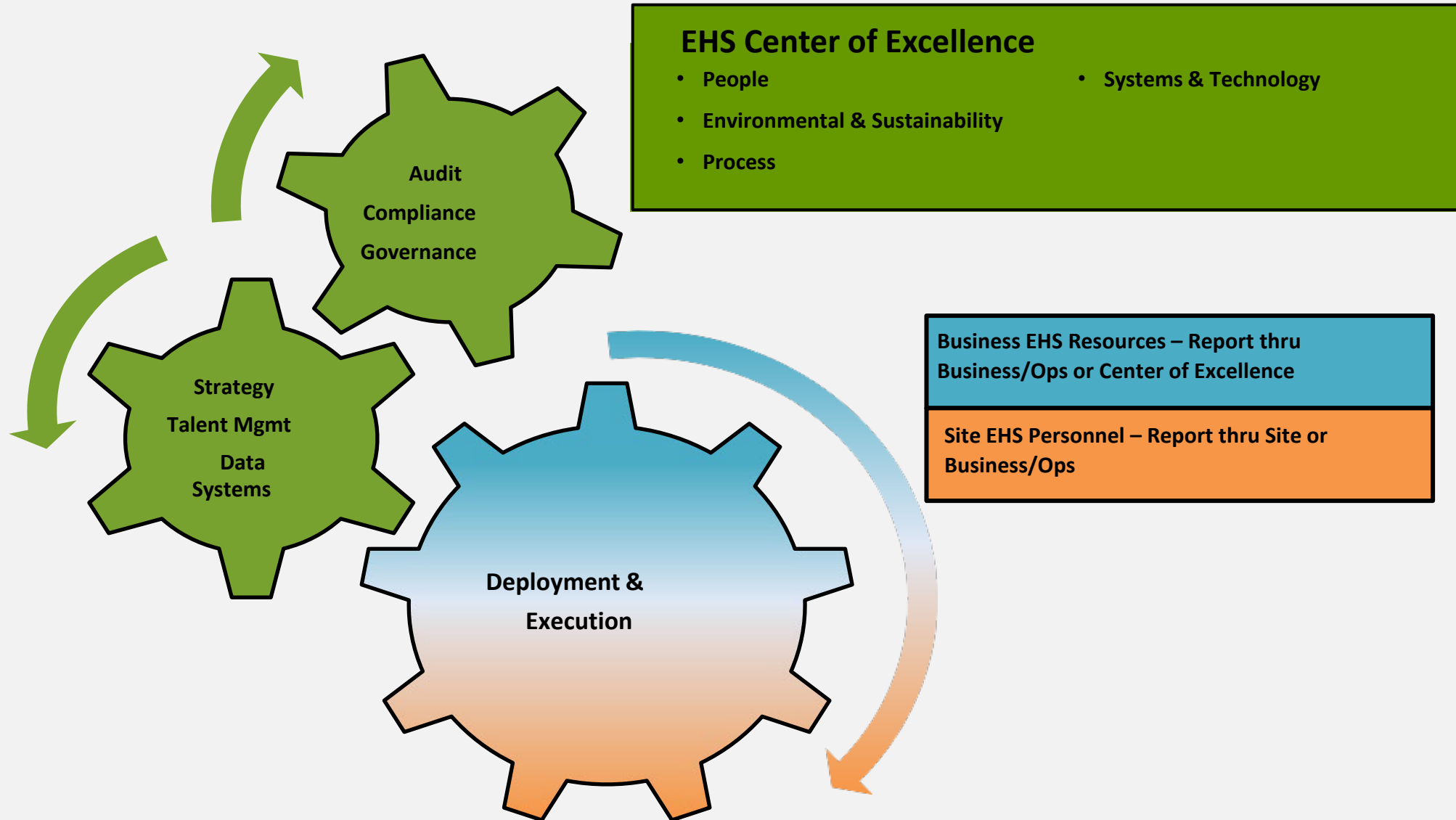
of net sales¹

Transforming mobility by advancing electric vehicles and advanced safety systems



(1) Reflects estimated end-market exposure based on 2022 net sales on a continuing operations basis, excluding the Biomaterials business which was divested in 2022 and previously reported in Corporate & Other.

DuPont EHS Function - Organizational Design



DuPont Environmental Management System

- Multi-site certificate approach
 - Common Environmental Management System (EMS) across DuPont sites that conforms to ISO 14001
- Manufacturing only
- Site-level implementation
 - Common EMS documents including standards, policies, core processes
 - Centralized systems for corrective action, internal audits, and management reviews
- Support through globally-deployed EMS resources with corporate Environmental Management Representative.
- External auditing firm (LRQA) certifies conformance to ISO 14001 using a sampling approach for sites.

Why ISO 14001 at DuPont

- Recognition from environmental regulators and communities for environmental efforts and successes
- Valuable feedback and insight from professional environmental auditors about how effectively our EMS processes are functioning
- Promotes environmental performance and continual improvement
- ISO 14001 certification is a requirement for doing business with some companies



Our Sustainability Framework

Strategic, ambitious and value creating



Innovate for good

Create sustainable innovations to help society thrive and address its most pressing challenges



Protect people and the planet

Operate sustainably by delivering world-class, end-to-end performance in safety, resource efficiency and environmental protection



Empower people to thrive

Enable the health and well-being of people and communities and advance diversity, equity and inclusion

Our 2030 Sustainability Goals



Innovate for good

Create sustainable innovations to help society thrive and address its most pressing challenges



Delivering solutions for global challenges

Innovate products to meaningfully address the world's sustainability challenges, with positive impacts for customers and society



Enabling a circular economy

Integrate circular economy principles into our business models considering life cycle impacts in the markets we serve



Innovating safe and sustainable by design

Advance sustainable chemistry in the design of our products and processes, addressing substances of concern and communicating with stakeholders on our performance



Protect people and the planet

Operate sustainably by delivering world-class, end-to-end performance in safety, resource efficiency, and environmental protection



Acting on climate

Reduce Scope 1 and 2 GHG emissions by 50% from 2019 base year and deliver carbon neutral operations by 2050

Reduce our Scope 3 emissions from purchased goods and services and end of life of sold products by 25% by 2030 from 2020 base year

Source 60% of power to our operations from renewable sources by 2030 as part of our RE100 commitment



Leading water stewardship

Implement holistic water strategies at sites in high-risk watersheds and at high consumption sites

Enable millions of people access to clean water through leadership in advancing water technology and enacting strategic partnerships



Delivering world-class environmental, health, and safety performance

Further our commitment to zero injuries, occupational illnesses, incidents, waste, and emissions



Empower people to thrive

Enable the health and well-being of people and communities and advance diversity, equity, and inclusion



Accelerating diversity, equity, and inclusion

Become one of the world's most inclusive companies, with diversity well ahead of industry benchmarks



Cultivating well-being and fulfillment

Create a workplace where employees report high levels of well-being and fulfillment



Building thriving communities

Improve over 25MM^[1] lives through targeted social impact programs

[1] The abbreviation MM is used to denote units in millions.

Operations Sustainability Strategy

Focus Areas:

- Improve alignment in Operations Sustainability goal-setting
- Define Sustainable EHS Operations strategy for environmental emissions (air, water, land) and 4R (reduce, reuse, repurpose, recycle); translate to investment choices and timing
- Develop a detailed plan for Operations/EHS to accomplish the 2030 Sustainability goals
- 100% of the DuPont operations sites involved

Air / Waste / 4R

2030 Goals

Enabling a circular economy



Integrate circular economy principles into our business models considering lifecycle impacts in the markets we serve

Water

Leading water stewardship

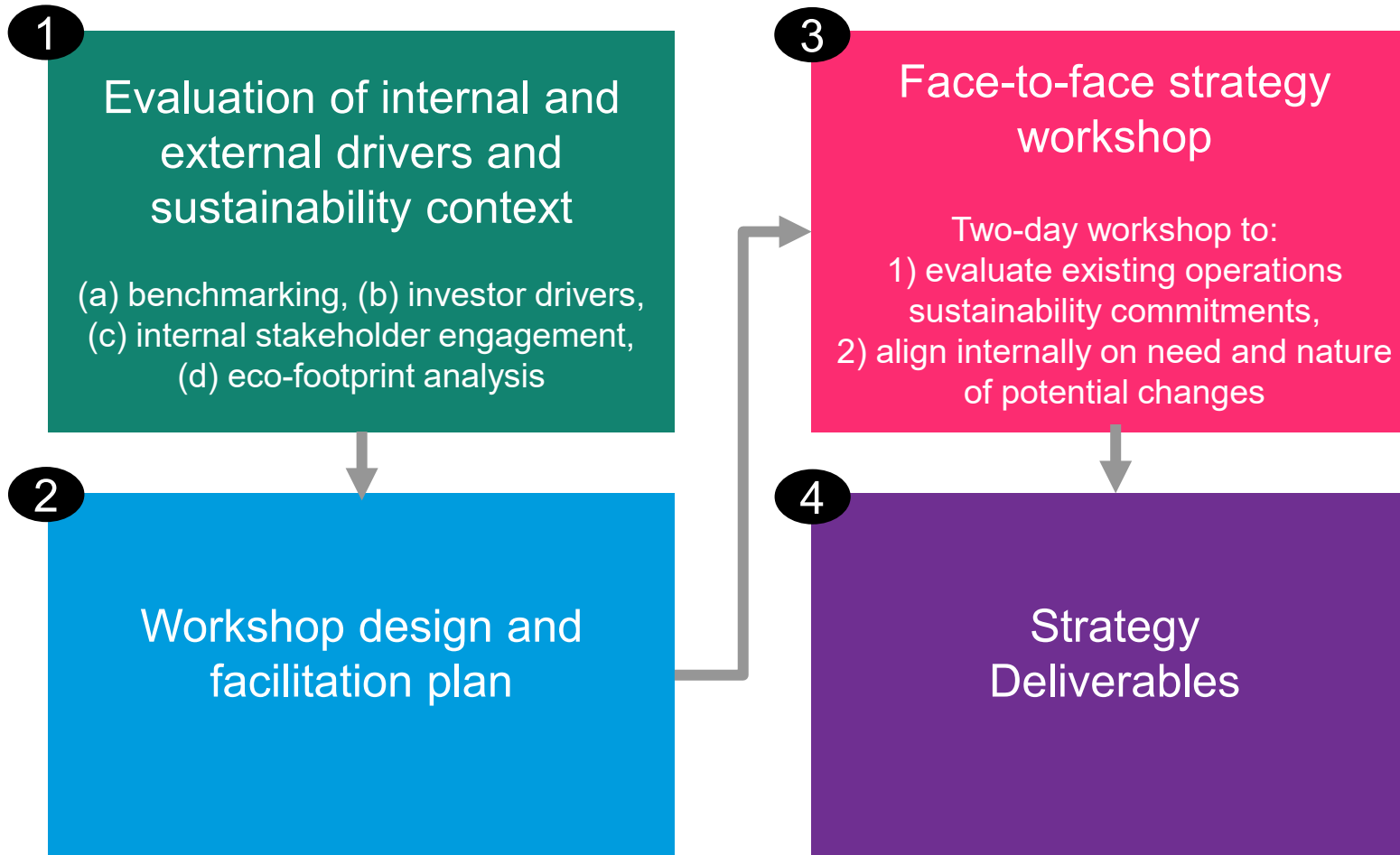


Implement holistic water strategies across all facilities prioritizing manufacturing plants and communities in high-risk watersheds

Enable millions of people access to clean water through leadership in advancing water technology and enacting strategic partnerships

Operations Sustainability Strategy

Partnered with ERM to develop and implement



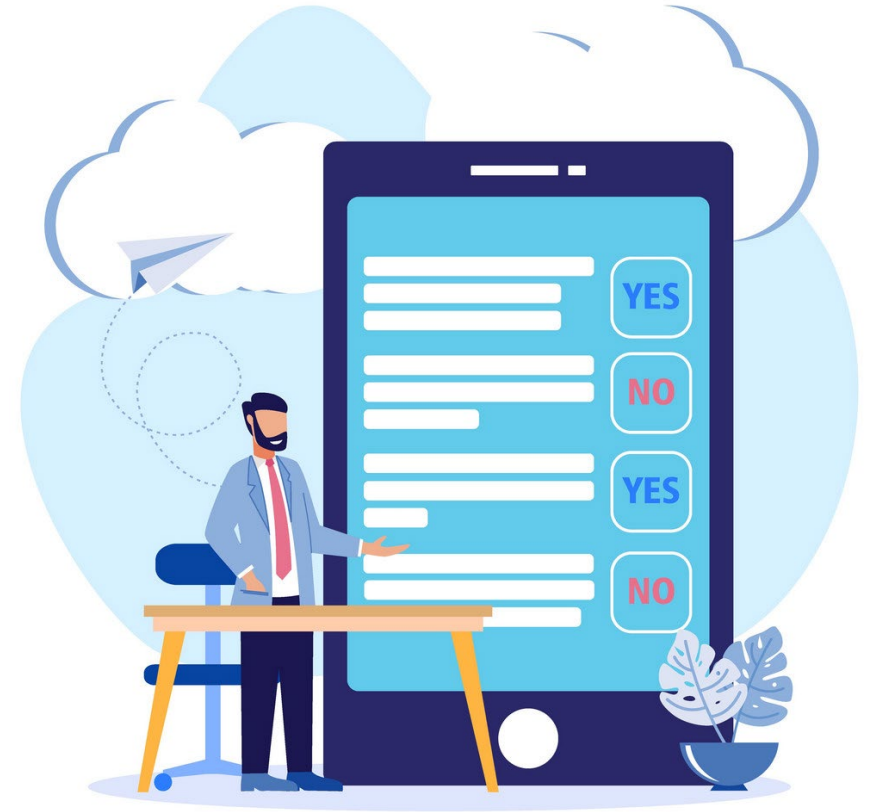
DuPont Internal Stakeholder Perspectives

In May of 2022, ERM and DuPont issued an operational sustainability survey to over 100 stakeholders from across the enterprise.

Plant managers, EHS site leaders, and engineering leaders all participated, along with representatives from the EHS CoE and other corporate functions.

Survey focused on the following topics*:

- (1) What are the most important environmental sustainability issues we face from our manufacturing operations?
- (2) What specific strategies and actions should we take to address them?



We also interviewed ~15 leaders across the business



Benchmarking Summary

- ERM benchmarked the following nine companies against DuPont based on public disclosures



- Focused on metrics, goals and initiatives across the following operational environmental topics:

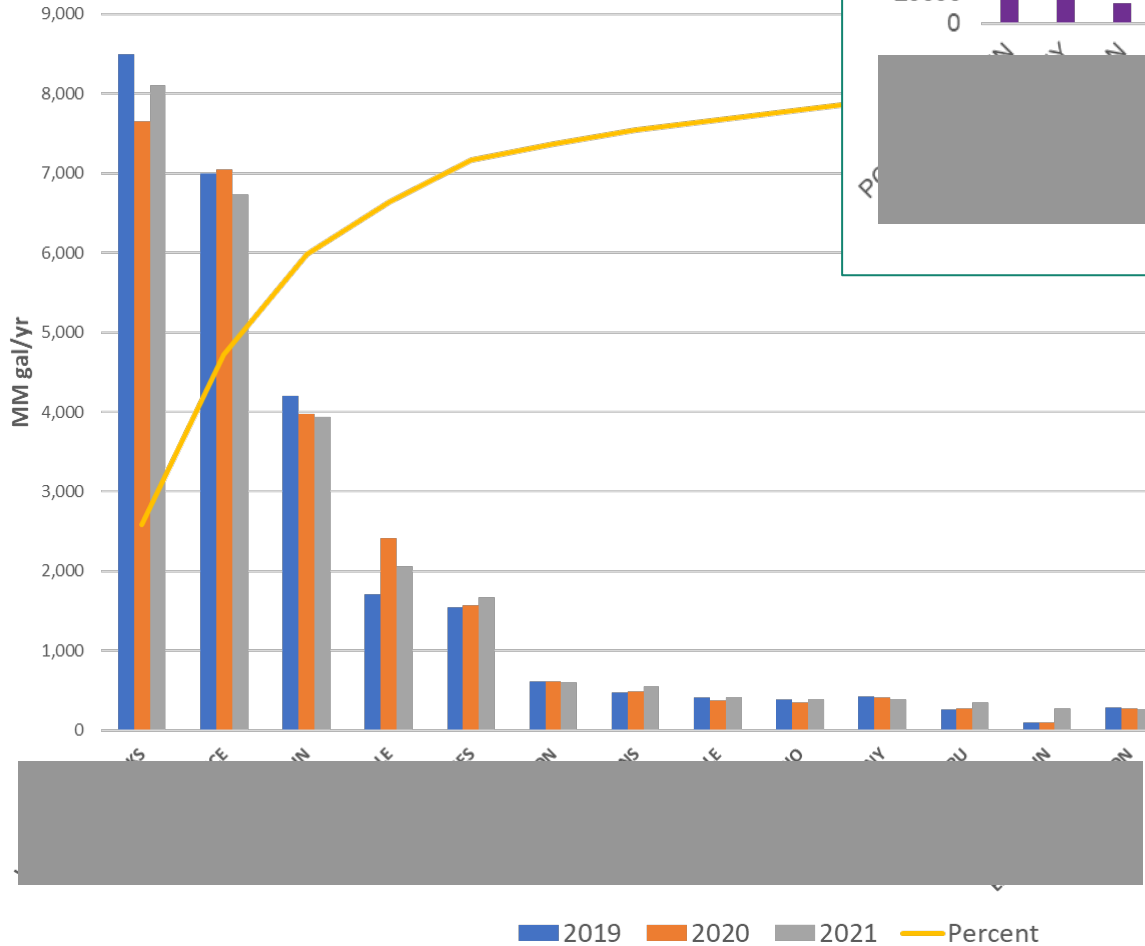
- Water
- Air emissions (excluding GHG)
- Environmental management systems
- Waste
- Biodiversity

- Key takeaways:

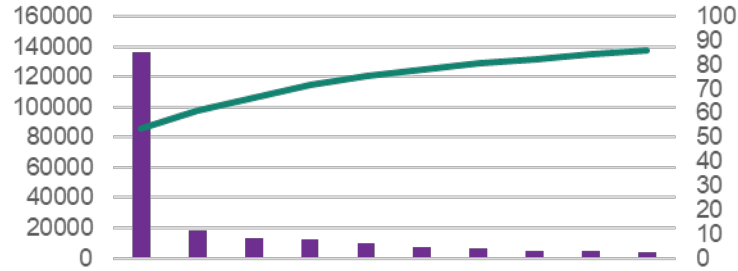
- Metrics typically included performance in absolute and normalized values
- Goals typically included an absolute or intensity metric with a target goal year as compared to a baseline year
- Water goals are heavily focused on areas of stress; most initiatives included site-specific water management plans
- Waste goals focused on zero waste (waste reduction and landfill diversion); several initiatives included increased use of recycled raw materials in specific internal processes and products
- Only one company had a public air goal not related to GHG; initiatives focused on traditional control measures
- Two companies had biodiversity goals, though many of the companies are collaborating with external organizations on targeted biodiversity programs
- All companies have a formal EMS, with many of them having third-party certified RC or ISO 14001 certifications

Eco-footprint Analysis

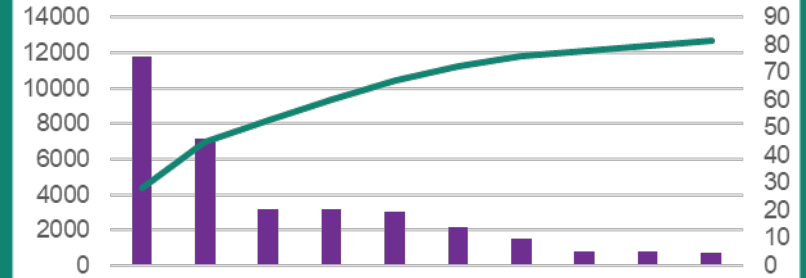
Water Withdrawal



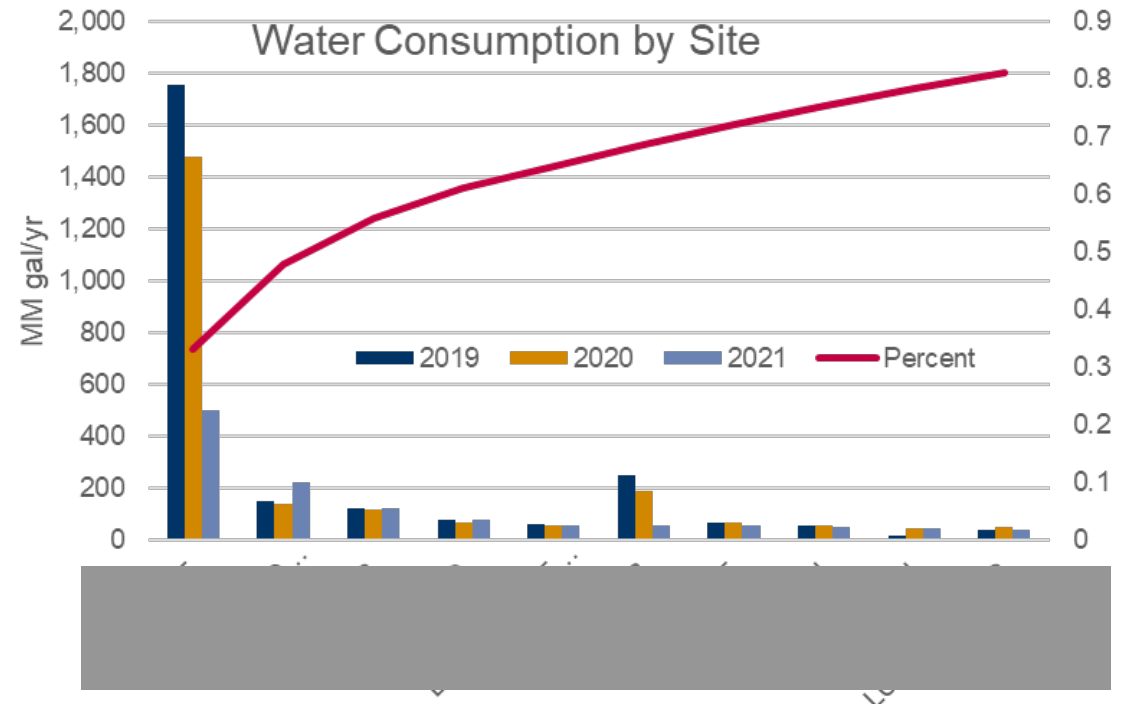
2021 Total Waste Top 10



2021 Hazardous Waste Top 10



Water Consumption by Site



Why AWS?



**ALLIANCE FOR
WATER STEWARDSHIP**

Internationally Recognized Sustainability Framework for:

- Water Stewardship
- Risk Management
- Improving performance
- Responsible Corporate
Citizenship

ISO 14001 PDCA Structure versus AWS Structure

ISO 14001-Based Management System Framework

1. Gather and Understand
2. Commit and Plan
3. Implement
4. Evaluate
5. Communicate and Disclose



DuPont's Water Strategy prioritizes high impact and investable actions

Optimize the use of water within DuPont Operations, with a focus on high-use sites in high-risk watersheds, to reduce risk for DuPont and the communities in which we operate.

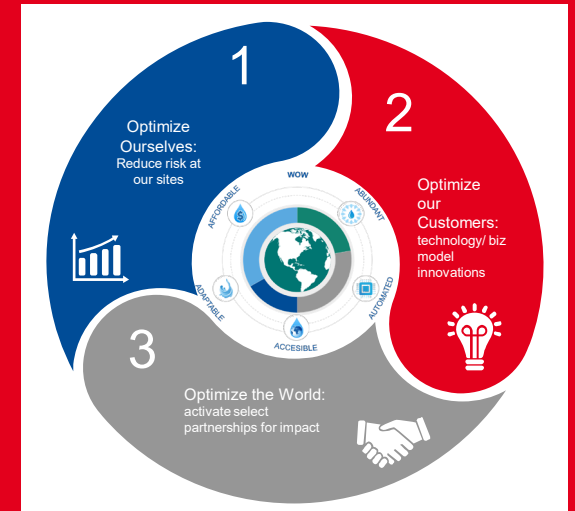
- Screened all sites for water risk using WRI Aqueduct and WWF Water Risk Filter
- Sites in high-risk watersheds and sites with high water consumption will implement the Alliance for Water Stewardship (AWS) standard
- Manage AWS implementation through our existing ISO 14001 based Environmental Management System.
- Multi-year implementation plan



Sustainability at DuPont

Enable millions of people access to clean water through leadership in advancing water technology and enacting strategic partnerships

Implement holistic water strategies across all facilities prioritizing mfg. plants and communities in high-risk watersheds





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QUESTIONS?

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