

# Brilliant transformation.

TRONOX HOLDINGS PLC | 2021 INVESTOR ESG SUMMARY

TRONOX 

# Intentional investments in sustainability are delivering results.

Tronox is the world's leading vertically integrated manufacturer of titanium dioxide pigment. We strive to be responsible stewards of the environment, respectful neighbors to the communities in which we operate, and to deliver products that contribute to a cleaner, more brilliant planet.

We have proudly stepped into the role of leading the industry in sustainability and protection of the environment. We have taken a number of significant steps over the last year to advance that leadership.

## 2021 Highlights



**\$3.572 billion**  
*in revenue*

**TCFD + SASB**  
*alignment*

**ESG oversight**  
*at Board level*



**13% reduction**  
*200 MW solar energy project will reduce global Scope 1 and 2 GHG emissions intensity by 13% against 2019 baseline*

**10,000 trees**  
*planted in Australia*

**Platinum rating**  
*by EcoVadis, awarded to the top 1% of the 85,000 companies evaluated*



**\$10.9 million**  
*for employee development*

**440,000+**  
*training hours completed by employees and contractors*

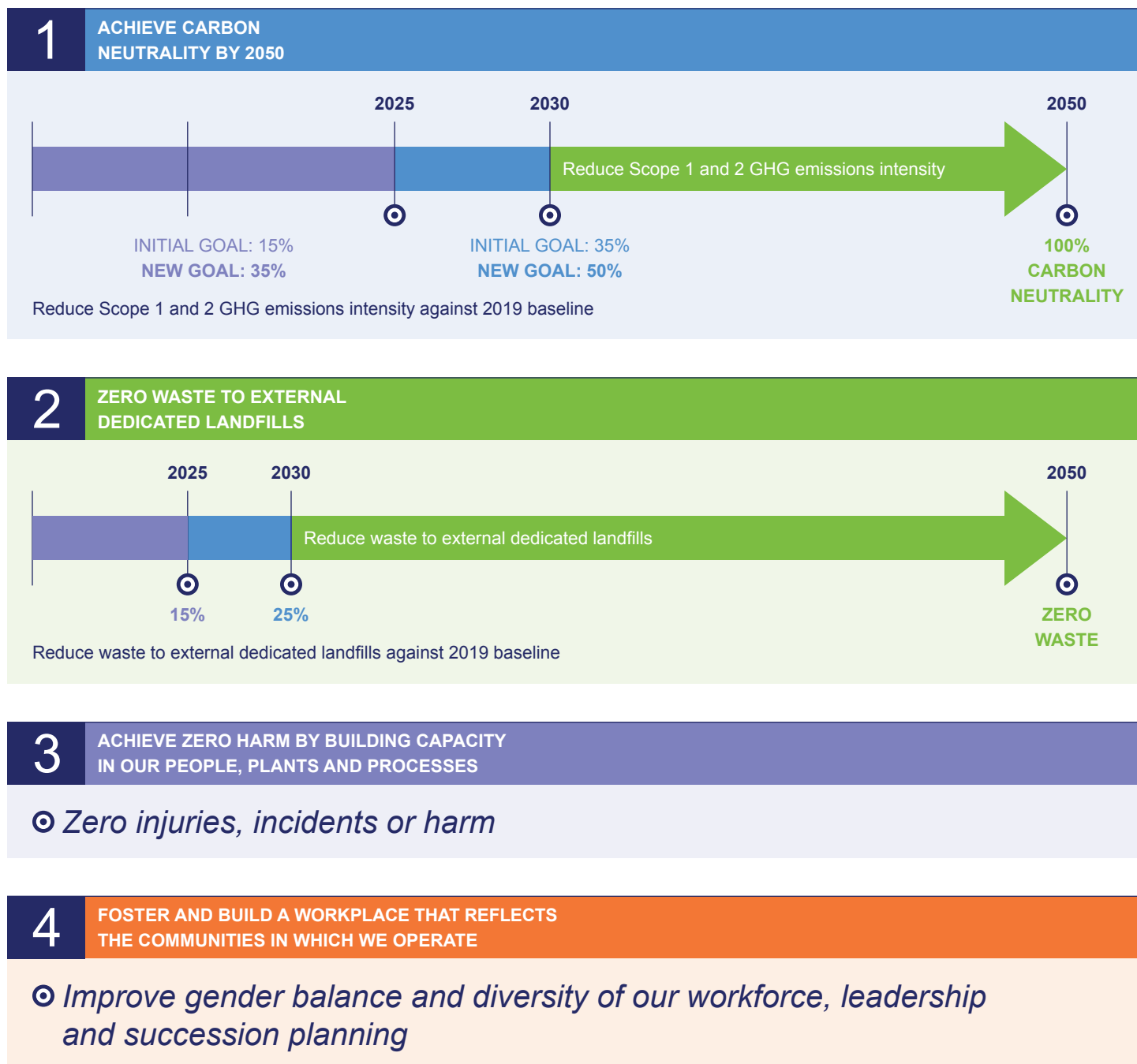


**\$2.6 million**  
*in community investments*

**270**  
*interns, apprentices and co-op students*

# Sustainability Goals

In 2021, we set new goals and commitments to achieve a *brilliant transformation* and empowered our people to seek opportunities to achieve them.



Everyone at Tronox is part of our vision *for a sustainable future — from our Board of Directors to each employee at every site.*

# Our 2021 Progress

We have set and achieved companywide short-term performance improvement targets as part of our intentional steps toward our sustainability goals.

PERFORMANCE IMPROVEMENT TARGETS	WHEN	STATUS	HOW WE PROGRESSED IN 2021
<b>ENVIRONMENT</b>			
Zero major environmental incidents	2021	✓	0 Level A incidents as defined by our incident classification definitions
Gain external assurance of sustainability reporting	2022	➡	Working internally to automate the data collection process from all relevant sites; expected to complete by end of 2022. In parallel, our internal auditing team is leading the effort to gain external assurance for sustainability reporting and preparing for future updates in corporate sustainability disclosures.
Close gaps with Global Industry Standards on Tailings Management	2023	➡	Completed a gap analysis against the Global Industry Standards on Tailings Management (GISTM), and set a roadmap to close any gaps by August 2023.
Move South Africa operations to renewable energy	2023	➡	Committed to a solar energy project that will power our smelters in South Africa and reduce our GHG emissions globally — scheduled to come online in 2023.
<b>HEALTH AND SAFETY</b>			
Zero fatalities across the company	2021	✓	0
Set lowest internal safety performance targets on record	2021	✓	Accomplished the target with a DIFR performance of 0.19.
Introduce leading safety indicators	2022	➡	Develop effective leading indicators that foster world-class safety.
<b>EMPLOYEES</b>			
Conduct gender equity pay analysis	2021	✓	Completed companywide gender equity pay analysis and made adjustments where needed to ensure men and women receive equal pay for equal work.
Empower women in leadership	2021	✓	Launched our Women in Leadership Program offering specialized training for female leaders.
Define mental health strategies for all regions	2021	✓	Optimized companywide mental health practices and enhanced regional strategies.
Conduct employee engagement survey	2022	➡	Capture feedback in areas such as diversity and inclusion, communication, safety, health, sustainability, work environment and leadership.
Offer companywide sustainability training	2022	➡	Launched Tronox Sustainability education series in 2021 and will continue in 2022.
100% of employees receive Diversity & Inclusion training	2023	➡	Launched top 5 D&I messages training in 2021. In 2022 and 2023, further education will be delivered to all employees on these topics.

PERFORMANCE IMPROVEMENT TARGETS	WHEN	STATUS	HOW WE PROGRESSED IN 2021
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RESPONSIBLE BUSINESS			
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Form Product Stewardship Council	2022	➡	Form a global, cross-functional council comprised of senior executives charged with oversight and decision-making authority for product safety and regulatory matters.
Understand our product environmental footprint	2022	➡	Tronox will lead the industrywide update of the TiO <sub>2</sub> life cycle inventory and product environmental footprint, which will provide a solid basis to demonstrate the sustainability benefits of TiO <sub>2</sub> .

COMMUNITIES			
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Complete review of Cultural Heritage Management	2022	➡	Acting on recommendations to align with new legislation and best practice.
Expand community engagement plans	2023	➡	100% of Tronox sites have a community engagement plan. Will work with our major contractors to develop their own Indigenous engagement plans.
Increase our Indigenous suppliers	2023	➡	Work to increase direct and indirect spend with Indigenous suppliers through membership with Supply Nation and the Indigenous Chamber of Commerce.
Establish a Reconciliation Action Plan in Australia	2022	➡	Begin building a structured approach to reconciliation in Australia, including Aboriginal employment targets.
Pilot "Cultural Conversations" trainings with traditional landowners	2023	➡	Launched successful pilot in 2021. All Northern Operations employees will complete training by 2023. All Australian Operations will begin pilot programs.

SUSTAINABLE PROCUREMENT			
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Implement action plan for top emitting suppliers	2022	➡	Identify high carbon-emitting suppliers based on ongoing Scope 3 emissions studies. Obtain their sustainability plans and action plans towards net zero emissions.
Deploy internal Sustainable Procurement Survey to all sites	2022	➡	In 2022, we will request supplier sustainability feedback from all our sites in the form of a self-assessment survey, with the plan of setting targets in 2023.
Train 100% of supply chain organization	2023	➡	Roll out a training program to European employees with a focus on the ISO 20400 Guidelines for Sustainable Procurement standard.



PERFORMANCE IMPROVEMENT TARGETS	WHEN	STATUS	HOW WE PROGRESSED IN 2021
<b>GOVERNANCE</b>			
Strengthen the Board's oversight of climate-related risk	2021	✓	Reorganized our Board committees to vest direct responsibility for sustainability-related risks in the Corporate Governance and Sustainability Committee.
Reach full alignment with TCFD recommendations	2021	✓	Scenario analysis completed in 2021. First TCFD report available <a href="#">here</a> .
Report on SASB Chemicals and Mining & Metals industry standard disclosures	2021	✓	Reporting on all Chemicals industry and Metals & Mining industry standards. <a href="#">View SASB Index</a>
Align with SusChem	2021	✓	Reached alignment with the European Technology Platform for Sustainable Chemistry.
Publish Conflict Minerals Policy	2021	✓	<a href="#">View policy</a>
Publish Supplier Sustainability Policy	2021	✓	<a href="#">View policy</a>
100% of employees receive business ethics and discrimination training	2022	➔	Each employee completes business ethics trainings every year. All new employees sign the Tronox Code of Business Ethics and Conduct.
Improve cyber security in our supply chain	2022	➔	Develop and implement a vendor assurance program to assess the cyber security vulnerability of our critical vendors.

*Cooljarloo Mine, Northern Operations, Western Australia*



# 2021 ESG Data Summary

PERFORMANCE AREA	2021	2020	2019
<b>COMPANY OVERVIEW</b>			
Direct Economic Value Generated and Distributed (USD)	<b>\$3.572 billion</b>	\$2.777 billion	\$2.642 billion
Economic Value Distributed (USD)	<b>\$2.951 billion</b>	\$2.451 billion	\$2.554 billion
• Operating costs	<b>68.0%</b>	64.8%	63.7%
• Employee wages and benefits	<b>22.6%</b>	24.9%	25.8%
• Payments to capital providers	<b>7.0%</b>	9.0%	9.1%
• Payments to government	<b>2.3%</b>	1.2%	1.3%
• Community investments	<b>0.1%</b>	0.1%	0.1%

<b>SAFETY</b>			
<b>🕒 Zero accidents / zero incidents / zero harm</b>			
Disabling Injury Frequency Rate (per 2 million hours worked by employees and contractors)	<b>0.19</b>	0.13	0.14
Total Recordable Injury Frequency Rate (per 2 million hours worked by employees and contractors)	<b>0.39</b>	0.38	0.44
Workplace Fatalities (employees and contractors)	<b>0</b>	0	2
Lost-Time Incidents (employees and contractors)	<b>16</b>	12	7
Restricted Work Cases (employees and contractors)	<b>4</b>	2	5
Disabling Injuries (employees and contractors)	<b>20</b>	14	14
Medical Treatment Cases (employees and contractors)	<b>22</b>	26	29
Recordable Injuries (employees and contractors)	<b>42</b>	40	43
Reversible Occupational Health Illnesses (employees and contractors)	<b>0</b>	0	0
Tier 1 Process Safety Incidents Count (pigment sites)	<b>5</b>	5	3
Tier 1 Process Safety Total Incident Rate (pigment sites)	<b>0.10</b>	0.11	0.07
Tier 1 Process Safety Incident Severity Rate (pigment sites)	<b>0.10</b>	0.11	0.07
Transport Incidents	<b>0</b>	0	0



Tronox acquired the TiO<sub>2</sub> business of Cristal on April 10, 2019. 2019 data does not include the full calendar year for Cristal.

PERFORMANCE AREA	2021	2020	2019
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## CLIMATE

🕒 Carbon neutrality by 2050 / 2025: 35% reduction in Scope 1 & 2 GHG emissions / 2030: 50% reduction

Scope 1 (Direct) GHG Emissions ( <i>metric tons of CO2e</i> )	2,398,992	2,254,071	2,128,316
Scope 1 (Direct) GHG Emissions Intensity ( <i>metric tons of CO2e / metric tons produced</i> )	0.86	0.85	0.89
Scope 2 (Energy Indirect) GHG Emissions ( <i>metric tons of CO2e</i> )	2,001,664	1,931,214	1,846,701
Scope 2 Indirect GHG Emissions Intensity ( <i>metric tons of CO2e / metric tons produced</i> )	0.72	0.73	0.77
Scope 3 GHG Emissions ( <i>metric tons of CO2e/year</i> )	1,804,156	Not reported	Not reported
Biogenic Emissions ( <i>metric tons</i> )	69,865	81,279	65,198
NOx Emissions ( <i>metric tons</i> )	1,686.94	4,233.26	Not reported
SOx Emissions ( <i>metric tons</i> )	1,279.87	4,780.26	Not reported
TCFD Alignment	Scenario analysis completed in 2021. Will incorporate findings into our ERM process and sustainability strategies. <a href="#">View TCFD Report.</a>		

## ENERGY

Total Energy Consumption (GJ)	41,758,891	38,972,879	36,931,769
% renewable	3.15%	Not reported	Not reported
Total Direct Primary Energy Consumption (GJ)	32,002,391	30,055,465	28,291,844
Direct Energy Intensity (GJ / <i>metric tons produced</i> )	11.5	11.3	11.8
Total Indirect Primary Energy Consumption (GJ)	9,756,499	8,917,414	8,639,925
Indirect Energy Intensity (GJ / <i>metric tons produced</i> )	3.5	3.4	3.6

## WASTE

🕒 Zero waste to external dedicated landfill by 2050 / 2025: 15% reduction / 2030: 25% reduction

Hazardous Waste Disposal ( <i>metric tons</i> )	77,928	127,798	109,238
Hazardous Waste Intensity ( <i>metric tons/metric tons produced</i> )	0.03	0.05	0.05
Non Hazardous Waste Disposal ( <i>metric tons</i> )	1,829,686	1,727,235	1,620,616
Non Hazardous Waste Intensity ( <i>metric tons/metric tons produced</i> )	0.66	0.65	0.67

## WATER

Total Water Withdrawal ( <i>cubic meters</i> )	79,633,505	80,775,482	78,745,124
Percentage of Water Coming from Water-Stressed Areas	15%	17%	Not reported
Total Water Consumed ( <i>cubic meters</i> )	20,929,275	26,506,543	Not reported
Water Intensity ( <i>millions of cubic meters/metric tons produced</i> )	28.52	30.45	32.78



PERFORMANCE AREA	2021	2020	2019
<b>BIODIVERSITY</b>			
Area Disturbed ( <i>in hectares</i> )	9,607	9,613	9,566
Area in Rehabilitation ( <i>in hectares</i> )	3,110	3,168	3,003
Area Restored ( <i>in hectares</i> )	7,553	7,006	6,549
Total Spending on Mine Restoration ( <i>USD</i> )	\$12,582,129	\$10,392,734	\$6,903,137

**EMPLOYEES**

🎯 **Improve gender balance and diversity of our workforce, leadership and succession planning.**

Women in Workforce	19%	19%	18%
Representation by Black and Minority Groups ( <i>race and ethnicity is tracked among less than half of our workforce</i> )	30%	28%	28%
Employees Participating in Collective Bargaining Agreements ( <i>no U.S. employees participate in collective bargaining</i> )	40%	41%	36%

**COMMUNITIES**

Community Investment	\$2.6 million	\$2.6 million	\$1.5 million
Operations with a Community Engagement Plan	100%	100%	100%
Percentage of Spend with Local Suppliers by Region			
• Australia	93%	93%	81%
• Brazil	79%	76%	100%
• China	86%	85%	89%
• Europe	82%	83%	87%
• Gulf Cooperation Council (GCC) Region	69%	57%	38%
• South Africa	88%	86%	75%
• United States	92%	95%	84%
Percentage of Reserves In or Near Indigenous Land	50%	Not reported	Not reported

Cooljarloo Mine, Northern Operations, Western Australia



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**United Kingdom:**

Laporte Road, Stallingborough  
Grimsby, North East Lincolnshire  
DN40 2PR

**United States:**

263 Tresser Boulevard, Suite 1100  
Stamford, CT 06901