



CHEMICAL TECHNOLOGY
ENABLING SUSTAINABILITY

2021 ESG

Data & Resources



2021 ESG Data & Resources

Unless otherwise noted, this **2021 ESG Data & Resources** supplement covers the period of January 1, 2021 to December 31, 2021 and provides updated and supplemental qualitative and quantitative information with respect to certain key ESG topics described in our 2020 ESG report, which can be found on our [Sustainability Website](#).

ECONOMIC PERFORMANCE

	2020	2021
Segment Net Sales		
Electronics Solutions	63%	64%
Industrial Solutions	37%	36%
Regional Net Sales		
Americas	30%	28%
EMEA	27%	28%
Asia	43%	44%
Business		
Amount Spent on R&D	\$48.7m	\$49.8m
Percentage of Sales Spent on R&D	2.7%	2.1%
Total Net Sales from Sustainable Products	\$450m+	\$650m+
Percentage of Net Sales from Sustainable Products*	~25%	~27%
Total Net Sales From Products Designed for Use-Phase Efficiency	\$180m+	\$230m+
Percentage Net Sales From Products Designed for Use-Phase Efficiency**	10%	10%
Operations		
Number of Facilities Around the World (Including from Acquisitions)	43	60
Number of Countries We Operate In	50+	50+

*Includes net sales from all products as defined on page 20 of our 2020 ESG Report, except Ocean-Safe Solutions.

**Includes net sales from all products as defined on page 20 of our 2020 ESG Report, except the Recycled Tin products. Additionally, includes our plating on plastic chemical technology.

Operations (Cont'd)

	2019	2020	2021
Metric Tons of Production*	205,270	185,620	199,860

ENERGY AND EMISSIONS

	2019	2020	2021
Fuel and Energy Consumption*			
Natural Gas	213,955 GJ	201,480 GJ	209,625 GJ
Diesel	10,840 GJ	9,325 GJ	9,695 GJ
Liquefied Petroleum Gas (LPG)	10,345 GJ	8,465 GJ	8,405 GJ
Purchased Steam	11,085 GJ	6,670 GJ	7,425 GJ
Purchased Electricity	236,625 GJ	206,980 GJ	209,525 GJ
Total Energy Consumed	491,000 GJ	459,705 GJ	474,175 GJ
Total Energy per MT (Total Production)	2.39 GJ/MT	2.48 GJ/MT	2.37 GJ/MT
Total Renewable Energy Sourced or Generated	8,150 GJ	26,785 GJ	29,500 GJ
Percentage Total Renewable Energy Sourced to Total Energy Consumed	1.7%	5.8%	6.2%

Greenhouse Gas Emissions (Carbon Dioxide Equivalent – MT CO2e)

Scope 1 Emissions	13,500 MT CO2e	12,565 MT CO2e	13,050 MT CO2e
Scope 2 Emissions (Market-based Method)	31,810 MT CO2e	27,595 MT CO2e	28,400 MT CO2e
Total Scope 1 & 2	45,310 MT CO2e	40,160 MT CO2e	41,450 MT CO2e
Total Emissions per Production Weight (MT)	0.22 MT CO2e/MT	0.22 MT CO2e/MT	0.21 CO2e/MT

WATER*

Total Water Consumed	401,726,460 Liters	360,301,115 Liters	372,519,595 Liters
Total Water Discharged	211,014,155 Liters	175,099,875 Liters	166,945,055 Liters
Percentage of Water Consumed from Alternative Water Sources (e.g., Greywater)	3.3%	3.6%	4.6%

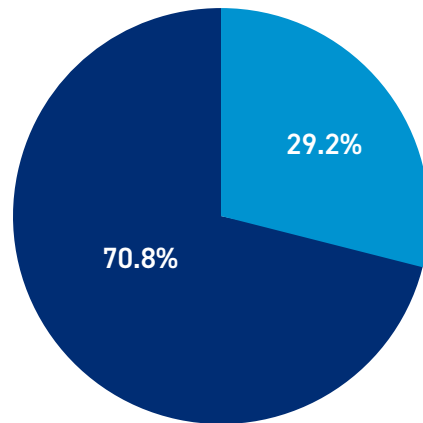
*This 2021 ESG Update includes certain updated environmental and production data points for 2019-2020, reflecting newly obtained information. Intensity figures reported in our 2020 ESG Report were not materially impacted by these updates.

WASTE*

	2019	2020	2021
Non-Hazardous Waste	5,585 MT	5,125 MT	5,865 MT
Hazardous Waste	9,670 MT	8,115 MT	9,790 MT
Total Waste Generated	15,255 MT	13,240 MT	15,655 MT
Recycled Non-Hazardous Waste	2,720 MT	2,710 MT	3,135 MT

SNAPSHOT OF OUR PEOPLE

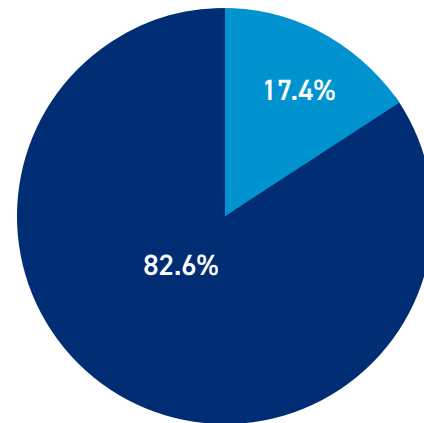
Category	2020	2021
Female Employees	28%	29%
Ethnic Minority Employees (U.S.)	34%	33%
Part Time Employees	1%	1%
Total Full-Time Employees	4,501	5,310



Global Employees

by Gender

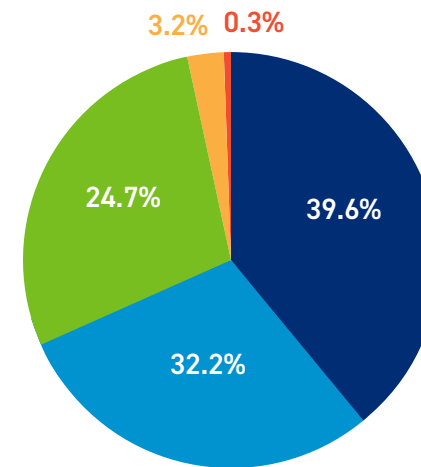
● Female ● Male



People Manager

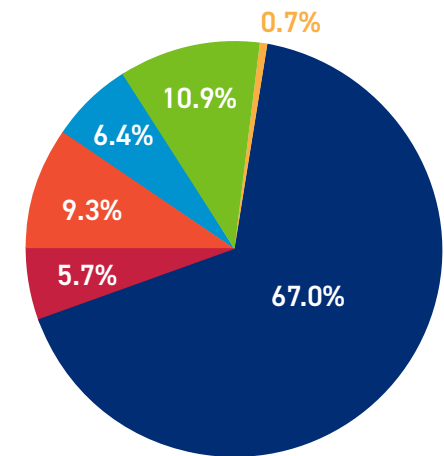
by Gender

● Female ● Male



Employee Location

by Region

● Asia ● Europe ● North America
● Latin America ● Australia

U.S. Race/Ethnicity

% of Employees

● Asian ● Black or African American ● Hispanic or Latino
● White ● Two or More Races ● Other**

GLOBAL WORKFORCE REPRESENTATION

Overall Headcount	2019	2020	2021
Total	4,377	4,435	5,401
Male	3,113	3,176	3,824
Female	1,264	1,259	1,577
Employment Work Type: Full Time	4,448	4,501	5,310
Employment Work Type: Part Time	58	52	71
Headcount by Rank: Management-Male	256	266	330
Headcount by Rank: Management-Female	47	46	53
Headcount by Rank: Professional-Male	1,883	1,883	2,262
Headcount by Rank: Professional-Female	851	850	1,047
Headcount by Rank: Others-Male	947	971	1,232
Headcount by Rank: Others-Female	359	348	477
New Hires (Including from Acquisitions)	680	389	630
Turnover Rate	12%	11.2%	14.9%

U.S. EMPLOYEE COUNT BY ETHNICITY

Asian	104	105	104
Black or African American	82	73	72
Hispanic or Latino	122	116	122
Two or More Races	12	12	8
Other*	11	61	63
White	723	722	749

EMPLOYEE COUNT BY REGION

Americas	1,380	1,409	1,506
Europe, Middle East and Africa (EMEA)	1,392	1,386	1,743
Asia-Pacific (APAC)	1,734	1,758	2,152

OVERALL HEADCOUNT BY AGE RANGE

	2019	2020	2021
Under 30	393	453	603
30-40 years	1,197	1,226	1,425
40-50 years	1,320	1,331	1,588
50-60 years	1,216	1,196	1,291
60+ years	380	347	494

ENVIRONMENTAL HEALTH & SAFETY*

Total Hours Worked	6,988,505	7,121,953	7,397,828
Total Number of Recordable Injury/Illness	34	41	36
Total Number of Lost Time Injury/Illness**	19	19	18
Total Days Away from Work Injury/Illness	384	160	194
Severity Rate - Days Away from Work (I&I)	10.99	4.49	5.24
Total First Aid-Only Cases	82	59	54
Total Safety Observations	1,408	2,622	3,792
Total Recordable Incident Rate (TRIR)	0.97	1.15	0.97
Lost Time Injury Rate (LTIR)***	0.57	0.53	0.49
Process Safety Incidents Count (PSIC)-PSE1	3	2	3
Process Safety Incidents Count (PSIC)-PSE2	2	2	0
Percentage Sites ISO 45001 Certified		33%+	33%+
Percentage Sites ISO 14001 Certified		87%	87%

*Environmental Health & Safety performance does not include contractors.

**We define lost time as any work-related incident that results in days away from work.

***LTIR is calculated as (number of lost time incidents * 200,000) / total employee hours.

QUALITY PERFORMANCE

	2020	2021
Number of Ideas Submitted to Idea Chest Since Inception*	1,723	3,115
Percentage of Idea Chest Ideas Implemented Since Inception	63%	55%
Percentage Sites ISO 9001 and/or IATF 16949 Certified	100%	100%
Type 1 Complaints per Product Shipped**	0.10%	0.14%
Perfect Order Performance (POP)***	95.4%	93%

COMPLIANCE

Number of Suppliers Audited Through Coupa Risk Assess	425	700
Percentage of Employees Who Participated in Business Ethics Training****	100%	100%
Percentage of Employees Who Completed Anti-Bribery Training****	100%	100%
Percentage of Employees Who Completed Code of Conduct Training****	100%	100%

SOCIAL IMPACT

Internal Fill Rate	41%	39%
Total Employee Training Hours	22,810	26,283
Percentage of Employees Who Participated in Career and Skill-Specific Training	50%	66%
Percentage of Employees Who Received Development Focused Performance Reviews	99%	98%
Percentage of Employees Member of Labor Unions	7%	5.5%
Percentage of Employees Without a College Degree	30%	32%
Number of Employees Without a College Degree	1,354	1,709

CHARITABLE GIVING

Donations	~\$680,000	~\$800,000
Number of Charities Donated to		~850

*The Idea Chest encourages employees to submit ideas for how we can improve safety, increase efficiency, enhance quality, and foster a better work environment.

**Type 1 complaints relate to anything that can potentially be attributed to a functional issue --including short shelf life, appearance, contamination and product not working as intended among others.

***POP is defined as the flawless fulfillment of customer orders by delivering products on time, damage free, and with correct documentation.

Our 2021 performance is primarily attributable to supply chain disruptions related to COVID-19, which impacted our on-time deliveries.

****Completion of these trainings are conditions of employment.

Global Reporting Initiative (GRI) Index

GENERAL DISCLOSURES (Core option)

Disclosure number	Disclosure description	Location and Answer
102-1	Name of the organization	Element Solutions Inc
102-2	Activities, brands, products and services	2020 ESG Report (Who We Are, page 2) 2020 ESG Report (Enabling the Products of Everyday Life, page 3) 2020 ESG Report (Our End Markets, page 4) 2021 10-K Annual Report (Business, page 1) ESI Website (Overview) ESI Website (Our History) ESI Website (Our Businesses)
102-3	Location of headquarters	2020 ESG Report (Who We Are, page 2) 2021 10-K Annual Report (Corporate Information, page 9) ESI's executive offices are located at 500 East Broward Boulevard, Suite 1860, Fort Lauderdale, Florida 33394, USA
102-4	Location of operations	2020 ESG Report (Who We Are, page 2) 2021 10-K Annual Report (Corporate Information, page 9 and Properties, page 22) ESI Website (Overview)
102-5	Ownership and legal form	Our common stock is traded on the New York Stock Exchange under the ticker symbol "ESI." We were incorporated in the State of Delaware on January 22, 2014. 2021 10-K Annual Report (Business, page 1) 2021 10-K Annual Report (Market for our Common Stock, page 24) 2021 Proxy Statement (Security Ownership, pages 56-58)
102-6	Markets served	2020 ESG Report (Enabling the Products of Everyday Life, page 3) 2020 ESG Report (Our End Markets, page 4) 2021 10-K Annual Report (Business, pages 2-4) ESI Website (Key Markets) ESI Website (Our Businesses)
102-7	Scale of the organization	2020 ESG Report (Who We Are, page 2) 2020 ESG Report (Our End Markets, page 4) 2020 ESG Report (Element Solutions at a Glance, page 7) 2021 10-K Annual Report (Business, page 1)
102-8	Information on employees and other workers	Snapshot of Our People page 4 Global Workforce Representation page 5 U.S. Employee Count by Ethnicity page 5 Employee Count by Region page 5 Overall Headcount by Age Range page 6 2021 10-K Annual Report (Selling & Marketing, page 6) 2021 10-K Annual Report (Human Capital Management, pages 6-7)

102-9	Supply chain	2020 ESG Report (Responsible Sourcing, page 43) 2021 10-K Annual Report (Customers, page 6) Supply Chain Conflict Minerals Policy Supplier Code of Conduct
102-10	Significant changes to the organization and its supply chain	There were no significant changes regarding our size, structure, ownership or supply chain in 2021.
102-11	Precautionary principle	<p>Through our precautionary approach to environmental sustainability and greenhouse gas emissions reduction, we continuously monitor and address the physical risks associated with climate change. Our ESG Executive Steering Committee identifies and monitors potential risks that may have an impact on business continuity or increase the cost of operations due to climate-related issues.</p> <p>TCFD Index Our 2021 TCFD Index marks the first time that ESI is reporting following the TCFD Recommendations. This initiative demonstrates our commitment to providing transparency on how we manage climate-related risks and opportunities across our businesses.</p> <p>2020 ESG Report (From Idea to Sustainable Solution: How We Innovate, page 21) 2020 ESG Report (Governance and Accountability, page 47) Global Quality Policy (Promoting a Culture of Sustainability)</p>
102-12	External initiatives	2020 ESG Report (External Memberships, Associations, and Certificates, page 52) 2020 ESG Report (Stakeholder Engagement, page 48)
102-13	Membership of associations	2020 ESG Report (External Memberships, Associations, and Certificates, page 52)
Strategy		
102-14	Statement from senior decision-maker	2020 ESG Report (CEO Message, page 1)
102-15	Key impacts, risks and opportunities	2020 ESG Report (Our ESG Priorities, page 9) 2020 ESG Report (ESG Moving Forward, page 10) TCFD Index Sustainability Website 2021 10-K Annual Report (Risk Factors, pages 10-22) 2021 Proxy Statement (Risk Management and Oversight, page 16)
Ethics and Integrity		
102-16	Values, principles, standards and norms of behavior	<p>Our employees embody the “5Cs” of our culture in their interactions with customers, colleagues and other counterparties to drive sustainable financial performance and create a rewarding environment. Our “5Cs” core values are: “Challenge,” “Commit,” “Collaborate,” “Choose” and “Care.”</p> <p>2020 ESG Report (The Elements of Our Culture, page 6) 2020 ESG Report (Responsible Sourcing Policies and Commitments, page 45) 2020 ESG Report (Ethics and Compliance, page 49) 2020 ESG Report (Policies, Reports and Disclosures, page 53) Sustainability Website (Policies) Board of Directors Governance Principles and Code of Conduct Business Conduct and Ethics Policy Code of Ethics for Senior Financial Officers 2021 Proxy Statement (Corporate Governance Guidelines, page 9)</p>
102-17	“Mechanisms for advice and concerns about ethics”	<p>Business Conduct and Ethics Policy (Corporate Compliance Hotline, page 16) Foreign Corrupt Practices Act/Anti-Corruption Policy (6.4 Notice; Reporting) 2020 ESG Report (Stakeholder Engagement, page 48)</p> <p>Our toll-free and toll numbers and online portal provides for the anonymous and confidential reporting of suspected violations of law or Company policies, including complaints or concerns regarding internal accounting controls, auditing matters, or perceived accounting irregularities. These numbers are available 24 hours, 7 days per week. A written report of the call will be provided to the appropriate Company officials for follow-up and resolution and, if appropriate, to the Chair of the Audit Committee of our Board of Directors for follow-up and resolution.</p>

Governance

102-18	Governance structure	2020 ESG Report (Governance and Compliance, page 46) 2020 ESG Report (Board Oversight, page 47) ESI Website (Corporate Governance) 2021 Proxy Statement (Corporate Governance, pages 8-12)
102-19	Delegating authority	2020 ESG Report (Governance and Compliance, page 46) 2020 ESG Report (Managing ESG Strategy and Performance, page 47)
102-20	Executive-level responsibility for economic, environmental and social topics	2020 ESG Report (Governance and Compliance, page 46) 2020 ESG Report (Managing ESG Strategy and Performance, page 47) TCFD Index
102-22	Composition of the highest governance body and its committees	<p>We maintain gender and ethnic diversity on our Board.</p> 2020 ESG Report (Board Oversight, page 47) Snapshot of Our People page 4 ESI Website (Board of Directors) ESI Website (Board Committees)
102-23	Chair of the highest governance body	2021 Proxy Statement (Board of Directors Nominees, pages 4-7) 2021 Proxy Statement (Board Leadership structure, page 11)
102-24	Nominating and selecting the highest governance body	2020 ESG Report (Board Oversight, page 47) Board of Directors Governance Principles and Code of Conduct Nominating and Policies Committee Charter
102-25	Conflicts of interest	2020 ESG Report (Board Oversight, page 47) Board of Directors Governance Principles and Code of Conduct page 2 2021 Proxy Statement (Certain Relationships and Related Transactions, pages 18-19)
102-26	Role of highest governance body in setting purpose, values and strategy	2020 ESG Report (Governance and Compliance, page 46) 2020 ESG Report (Managing ESG Strategy and Performance, page 47) 2021 Proxy Statement (Role of the Board of Directors, page 11)
102-27	Collective knowledge of highest governance body	2020 ESG Report (Governance and Compliance, page 46) 2020 ESG Report (Managing ESG Strategy and Performance, page 47) 2021 Proxy Statement (Board of Directors Nominees, pages 4-7)
102-28	Evaluating the highest governance body's performance	2020 ESG Report (Board Oversight, page 47) Board of Directors Governance Principles and Code of Conduct pages 1-2 2021 Proxy Statement (Board and Committee Assessment Process, page 16)
		<p>Board oversight for ESG matters was formalized in the updated Nominating and Policies Committee Charter in early 2021.</p> Nominating and Policies Committee Charter
102-35	Remuneration policies	Compensation Committee Charter 2021 Proxy Statement (Compensation Discussion and Analysis, pages 22-41)
102-36	Process for determining remuneration	Compensation Committee Charter 2021 Proxy Statement (Compensation Discussion and Analysis, pages 22-41)
102-38	Annual compensation ratio	2021 Proxy Statement (Pay Ratio, pages 43-44)
Stakeholder Engagement		
102-40	List of stakeholder groups	2020 ESG Report (Our ESG Priorities, page 9) 2020 ESG Report (Stakeholder Engagement, page 48) Sustainability Goals

102-41	Collective bargaining agreements	We respect the rights of our employees to freely associate and bargain collectively in a legal, ethical and safe way. Sustainability Website (Labor Rights) 2020 ESG Report (Labor Rights, page 32)
102-42	Identifying and selecting stakeholders	2020 ESG Report (Our ESG Priorities, page 9) 2020 ESG Report (Stakeholder Engagement, page 48) Sustainability Goals
102-43	Approach to stakeholder engagement	2020 ESG Report (Our ESG Priorities, page 9) 2020 ESG Report (Stakeholder Engagement, page 48) Sustainability Goals Sustainability Website
102-44	Key topics and concerns raised	2020 ESG Report (Our ESG Priorities, page 9) Sustainability Goals Sustainability Website
102-45	Entities included in the consolidated financial statements	2021 10-K Annual Report (Exhibit 21.1, List of Subsidiaries [as of December 31, 2021])
102-46	Defining report content and topic Boundaries	2020 ESG Report (Our ESG Priorities, page 9) Sustainability Goals
102-47	List of material topics	2020 ESG Report (Our ESG Priorities, page 9) Sustainability Goals
102-48	Restatements of information	This 2021 ESG Update includes certain updated environmental and production data points for 2019-2020, reflecting newly obtained information. Intensity figures reported in our 2020 ESG Report were not materially impacted by these updates.
102-49	Changes in reporting	There are no material changes in reporting for 2021.
102-50	Reporting period	January 1, 2021 to December 31, 2021
102-51	Date of most recent report	The date of our most recent previous report is February 24, 2020.
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	sustainability@elementsolutionsinc.com
102-54	Claims of reporting in accordance with the GRI Standards	About This Update We have reported in accordance with the GRI Standards: "Core" option.
102-55	GRI Index	GRI Index

GRI TOPIC-SPECIFIC DISCLOSURES

Economic Performance

201	103: Management Approach	About This Update 2020 ESG Report (About This Report, pages 1-9, 25) UK Tax Strategy
201-2	Financial implications and other risks and opportunities due to climate change	About This Update 2020 ESG Report (Managing Our Impact, page 26) TCFD Index Our 2021 TCFD Index marks the first time that ESI is reporting following the TCFD Recommendations. This initiative demonstrates our commitment to providing transparency on how we manage climate-related risks and opportunities across our businesses.
201-3	Defined benefit plan obligations and other retirement plans	2020 ESG Report (Talent Attraction, page 33) 2021 Proxy Statement (Benefits and Other Perquisites, pages 36-37)

Anti-Corruption

205	103: Management Approach	2020 ESG Report (Ethics and Compliance, page 49) 2020 ESG Report (Managing Risks, page 49) 2020 ESG Report (Training and Monitoring, page 50) Business Conduct and Ethics Policy (pages 7, 8, 14) Foreign Corrupt Practices Act/Anti-Corruption Policy 2021 10-K Annual Report (Risk Factors, page 16-17)
205-2	Communication and training about anti-corruption policies and procedures	2020 ESG Report (Training and Monitoring, page 50) Due to confidentiality constraints, the total number and percentage of employees that have received training on anti-corruption, broken down by employee category and region, is not included in this 2021 ESG Update. Due to confidentiality constraints, the total number and percentage of governance body members that have received training on anti-corruption, broken down by region, is not included in this 2021 ESG Update.
205-3	Confirmed incidents of corruption of actions taken	Omitted in this 2021 ESG Update due to confidentiality constraints.

Energy

302	103: Management Approach	2020 ESG Report (Energy, Emissions and Climate Change, page 26) 2020 ESG Report (Managing Our Impact, page 26) TCFD Index Sustainability Goals
302-1	Energy consumption within the organization	2020 ESG Report (Measuring Our Footprint, page 26) Energy and Emissions page 3 TCFD Index
302-3	Energy intensity	2020 ESG Report (Energy, Emissions and Climate Change, page 26) 2020 ESG Report (Measuring Our Footprint, page 26) Energy and Emissions page 3 TCFD Index

Water and Effluents

303	103: Management Approach	2020 ESG Report (Water and Waste, page 28)
303-1	Interactions with water as a shared resource	2020 ESG Report (Water and Waste, page 28) 2020 ESG Report (Monitoring and Reducing Water, page 28) Water and Waste pages 3-4
303-4	Water discharge	2020 ESG Report (Monitoring and Reducing Water, page 28) Water and Waste pages 3-4
303-5	Water consumption	2020 ESG Report (Monitoring and Reducing Water, page 28) Water and Waste pages 3-4

Emissions

305	103: Management Approach	2020 ESG Report (Energy, Emissions and Climate Change, page 26) 2020 ESG Report (Managing Our Impact, page 26) TCFD Index
305-1	Direct (Scope 1) GHG emissions	2020 ESG Report (Measuring Our Footprint, page 26)
305-2	Energy indirect (Scope 2) GHG emissions	2020 ESG Report (Measuring Our Footprint, page 26)
305-4	GHG emissions intensity	2020 ESG Report (Measuring Our Footprint, page 26)
305-5	Reduction of GHG emissions	2020 ESG Report (Energy, Emissions and Climate Change, page 26) 2020 ESG Report (Managing Our Impact, page 26) TCFD Index

Effluents and Waste

306	103: Management Approach	2020 ESG Report (Water and Waste, page 28) Water and Waste pages 3-4
306-3	Waste generated	2020 ESG Report (Measuring and Reducing Waste, page 29) Waste page 4
306-4	Waste diverted from disposal	2020 ESG Report (Measuring and Reducing Waste, page 29)

Environmental Compliance

307	103: Management Approach	2020 ESG Report (Environmental Compliance, page 18) 2020 ESG Report (Managing Risks, page 18) Global Environmental, Health and Safety Policy
307-1	Non-compliance with environmental laws and regulations	2020 ESG Report (Evaluation and Monitoring, page 18) In 2021, we experienced no material cases of non-compliance with environmental laws and regulations.

Supplier Environmental Assessment

308	103: Management Approach	2020 ESG Report (Responsible Sourcing, page 43) 2020 ESG Report (Supply Chain Risk Management, page 43) 2020 ESG Report (Third Party Monitoring and Screening, page 44) Supplier Code of Conduct Supply Chain Conflict Minerals Policy
308-1	New suppliers that were screened using environmental criteria	2020 ESG Report (Third Party Monitoring and Screening, page 44) Number of Suppliers Audited Through Coupa Risk Assess page 7

Employment

401	103: Management Approach	2020 ESG Report (The Elements of our Culture, page 6) 2020 ESG Report (Workforce Prosperity, page 33) 2020 ESG Report (Talent Attraction, page 33) 2020 ESG Report (Training and Development, page 34) ESI Career Website
401-1	New employee hires and employee turnover	2020 ESG Report (Talent Attraction, page 33) Global Workforce Representation page 5
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	2020 ESG Report (Talent Attraction, page 33) We provide a variety of benefits to our full-time employees from paternity/maternity leave, healthcare, life insurance, disability coverage, retirement provision and stock ownership. The benefits we provide vary depending on location and are based on local human resources laws and regulations with which we comply. Benefits packages received in each region vary and are confidential due to competitiveness restraints.

Labor Management

402	103: Management Approach	2021 10-K Annual Report (Human Capital Management, pages 6-7) Sustainability Website (Labor Rights) 2020 ESG Report (Stakeholder Engagement, page 48) Business Conduct and Ethics Policy (Labor & Human Rights, page 9) Anti-slavery and Human Trafficking Policy
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402-1	Minimum notice periods regarding operational changes	Sustainability Website (Labor Rights) 2020 ESG Report (Labor Rights, page 32) 2020 ESG Report (Stakeholder Engagement, page 48) We comply with notice periods (as defined by collective bargaining agreements in place or by local laws or regulations) prior to the implementation of any changes that could potentially involve our employees.
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Occupational Health and Safety

403	103: Management Approach	2021 10-K Annual Report (Human Capital Management, pages 6-7) 2020 ESG Report (Employee Health and Safety, page 36) 2020 ESG Report (Managing Health and Safety, page 36) 2020 ESG Report (Ensuring Effective Health and Safety Management, page 37) Global Environmental, Health and Safety Policy Sustainability Goals
403-1	Occupational health and safety management system	2020 ESG Report (Managing Health and Safety, page 36)
403-2	Hazard identification, risk assessment and incident investigation	2020 ESG Report (Ensuring Effective Health and Safety Management, page 37) Environmental Health & Safety page 6
403-4	Worker participation, consultation and communication on occupational health and safety	2020 ESG Report (Managing Health and Safety, page 36) 2020 ESG Report (Ensuring Effective Health and Safety Management, page 37) Environmental Health & Safety page 6
403-5	Worker training on occupational health and safety	2020 ESG Report (Managing Health and Safety, page 36) 2020 ESG Report (Ensuring Effective Health and Safety Management, page 37) Environmental Health & Safety page 6
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	2020 ESG Report (Employee Health and Safety, page 36) 2020 ESG Report (Managing Health and Safety, page 36) 2020 ESG Report (Ensuring Effective Health and Safety Management, page 37) Environmental Health & Safety page 6
403-9	Work-related injuries	2020 ESG Report (Measuring Health and Safety Performance, page 37) Environmental Health & Safety page 6
403-10	Work-related ill health	2020 ESG Report (Measuring Health and Safety Performance, page 37) Environmental Health & Safety page 6

Training and Education

404	103: Management Approach	2021 10-K Annual Report (Human Capital Management, pages 6-7) 2020 ESG Report (The Elements of our Culture, page 6) 2020 ESG Report (Workforce Prosperity, page 33) 2020 ESG Report (Talent Attraction, page 33) Business Conduct and Ethics Policy (Training, page 17) Sustainability Goals ESI Website (Six Sigma)
404-1	Average hours of training per year per employee	2020 ESG Report (Training and Development, page 34) Social Impact page 7
404-3	Percentage of employees receiving regular performance and career development reviews	2020 ESG Report (Social Impact, page 30) Social Impact page 7

Diversity and Equal Opportunity

405	103: Management Approach	2021 10-K Annual Report (Human Capital Management, pages 6-7) 2020 ESG Report (Diversity, Inclusion and Equity, page 31) 2020 ESG Report (Promoting Diversity and Inclusion, page 31) Sustainability Goals (Promoting Diversity and Inclusion, page 5)
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405-1	Diversity of governance bodies and employees	Snapshot of Our People page 4 ESI Website (Board of Directors)
Non-Discrimination		
406	103: Management Approach	2020 ESG Report (Diversity, Inclusion and Equity, page 31) 2020 ESG Report (Promoting Diversity and Inclusion, page 31)
406-1	Incidents of discrimination and corrective actions taken	2020 ESG Report (Promoting Diversity and Inclusion, page 31) We are not aware of any formal cases of discrimination in 2021.
Freedom of Association and Collective Bargaining		
407	103: Management Approach	2020 ESG Report (Diversity, Inclusion and Equity, page 31) 2020 ESG Report (Labor Rights, page 32)
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	We respect the rights of our employees to freely associate and bargain collectively in a legal, ethical and safe way. 2020 ESG Report (Labor Rights, page 32) Sustainability Website (Labor Rights)
Child Labor		
408	103: Management Approach	2020 ESG Report (Policies and Procedures, page 43) Anti-Slavery and Human Trafficking Policy Supplier Code of Conduct Business Conduct and Ethics Policy
Forced Labor		
409	103: Management Approach	2020 ESG Report (Policies and Procedures, page 43) Anti-Slavery and Human Trafficking Policy Supplier Code of Conduct Business Conduct and Ethics Policy
Human Rights Assessment		
412	103: Management Approach	2020 ESG Report (Responsible Sourcing, page 43) 2020 ESG Report (Supply Chain Risk Management, page 43) 2020 ESG Report (Third Party Monitoring and Screening, page 44) Supplier Code of Conduct Anti-Slavery and Human Trafficking Policy
412-1	Operations that have been subject to human rights reviews or impact assessments	2020 ESG Report (Third Party Monitoring and Screening, page 44) Supplier Code of Conduct
Local Communities		
413	103: Management Approach	2020 ESG Report (Community Impact, page 40) 2020 ESG Report (Employee Volunteerism, page 41) 2020 ESG Report (Charitable Giving, page 42) Charitable Giving page 7
413-1	Operations with local community engagement, impact assessments and development programs	2020 ESG Report (Employee Volunteerism, page 41) 2020 ESG Report (Charitable Giving, page 42) Sustainability Website In 2021, we expanded our community engagement program, ESI Cares. Our employees are now able to donate to approximately two million charitable organizations globally and organize volunteering and fundraising events in one centralized platform. Donations through this program are matched by the ESI Foundation. In 2021, we made a total of ~\$800,000 in donations to ~850 charities.

Supplier Social Assessment

414	103: Management Approach	2020 ESG Report (Responsible Sourcing, page 43) 2020 ESG Report (Supply Chain Risk Management, page 43) 2020 ESG Report (Third Party Monitoring and Screening, page 44) Supplier Code of Conduct
414-1	New suppliers that were screened using social criteria	2020 ESG Report (Third Party Monitoring and Screening, page 44) Number of Suppliers Audited Through Coupa Risk Assess page 7

Customer Health and Safety

416	103: Management Approach	2020 ESG Report (Removing Hazardous Chemicals Through Green Chemistry, page 22) 2020 ESG Report (Product Safety and Transparency, page 38) 2020 ESG Report (Manufacturing Safe Products, page 38)
416-1	Assessment of the health and safety impacts of product and service categories	2020 ESG Report (Manufacturing Safe Products, page 38)
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	2020 ESG Report (Manufacturing Safe Products, page 38) 2020 ESG Report (Product Safety and Transparency, page 38) Global Quality Policy
We had no material incidents of noncompliance with respect to the health and safety impacts of products and services in 2021. A material non-compliance incident is one that results in a significant adverse impact to our business, condition (financial or otherwise), assets or results.		

Marketing and Labeling

417	103: Management Approach	2020 ESG Report (Product Safety Training and Labeling, page 39) Animal Testing Statement
417-1	Requirements for product and service information and labeling	2020 ESG Report (Product Safety Training and Labeling, page 39) Animal Testing Statement
417-2	Incidents of non-compliance concerning products and service information and labeling	We had no material incidents of noncompliance with respect to product and service information and labeling in 2021. A material non-compliance incident is one that results in a significant adverse impact to our business, condition (financial or otherwise), assets or results.

Customer Privacy

418	103: Management Approach	2020 ESG Report (Data Security and Privacy, page 51) Website Privacy Policy
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	We had no material complaints concerning breaches of customer privacy and losses of customer data in 2021.

NON-GRI TOPIC SPECIFIC DISCLOSURES**Sustainable Chemistry (Green Chemistry, Innovation for Sustainable Products, Circular Economy)**

Custom	103: Management Approach	2020 ESG Report (Sustainable Chemistry, page 20) 2020 ESG Report (From Idea to Sustainable Solution: How We Innovate, page 21) 2020 ESG Report (Reducing Environmental Impact with Innovation, page 23) 2020 ESG Report (Enabling the Circular Economy, page 24) Global Quality Policy (Promoting a Culture of Sustainability) Sustainability Goals
Custom	Revenue generated from sustainable chemistry products	ESI Website (Sustainable Chemistry) Economic Performance page 2

Sustainability Accounting Standards Board (SASB) Index

CHEMICALS INDUSTRY DISCLOSURES

Disclosure Topic	Disclosure Number	Disclosure Accounting Metric	Location and Answer
Greenhouse Gas Emissions	RT-CH-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Sustainability Goals (Energy Use & Emissions, page 3) 2020 ESG Report (Measuring Our Footprint, page 26) TCFD Index
	RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets.	Sustainability Goals (Energy Use & Emissions, page 3) 2020 ESG Report (Managing Our Impact, page 26) 2020 ESG Report (Measuring Our Footprint, page 26) 2020 ESG Report (Energy and Emissions Reduction Initiatives, page 27) TCFD Index Our 2021 TCFD Index marks the first time that ESI is reporting following the TCFD Recommendations. This initiative demonstrates our commitment to providing transparency on how we manage climate-related risks and opportunities across our businesses.
Air Quality	RT-CH-120a.1	Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs) and (4) hazardous air pollutants (HAPs)	Our operations are low emissions. For example, only one U.S.-based facility is required to have an air permit and its emissions are 90% below permit limits.
Energy Management	RT-CH-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable and (4) total self-generated energy	2020 ESG Report (Measuring Our Footprint, page 26) Energy and Emissions page 3
Water Management	RT-CH-140a.1	(1) Total water withdrawn, (2) total water consumed and percentage of each in regions with High or Extremely High Baseline Water Stress	2020 ESG Report (Monitoring and Reducing Water, page 28) Water page 3
	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations	2020 ESG Report (Monitoring and Reducing Water, page 28) We have experienced no material incidents associated with water quality permits, standards and regulations in the last three years.
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	2020 ESG Report (Monitoring and Reducing Water, page 28) Water page 3
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous waste generated and percentage recycled	2020 ESG Report (Measuring and Reducing Waste, page 29) Waste page 4
Community Relations	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	2020 ESG Report (Community Impact, page 40) In 2021, we expanded our community engagement program, ESI Cares. Our employees are now able to donate to approximately two million charitable organizations globally and organize volunteering and fundraising events in one centralized platform. Donations through this program are matched by the ESI Foundation. In 2021, we made a total of ~\$800,000 in donations to ~850 charities. 2021 10-K Annual Report (Human Capital Management, pages 6, 7) 2020 ESG Report (Employee Volunteerism, page 41) 2020 ESG Report (Charitable Giving, page 42) Sustainability Website

Disclosure Topic	Disclosure Number	Disclosure Accounting Metric	Location and Answer
Workforce Health & Safety	RT-CH-320a.1	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	2020 ESG Report (Measuring Health and Safety Performance, page 37) Environmental Health & Safety page 6 Global Environmental, Health and Safety Policy Sustainability Goals
	RT-CH-320a.2	Description of efforts to assess, monitor and reduce exposure of employees and contract workers to long-term (chronic) health risks	2020 ESG Report (Managing Health and Safety, page 36) 2020 ESG Report (Ensuring Effective Health and Safety Management, page 37) Sustainability Goals
Product Design for Use-phase Efficiency	RT-CH-410a.1	Revenue from products designed for use-phase resource efficiency	ESI Website (Sustainable Chemistry)
Safety & Environmental Stewardship of Chemicals	RT-CH-410b.1	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances and (2) percentage of such products that have undergone a hazard assessment	Certain of our products contain chemicals categorized as GHS Category 1 and 2 Health and Environmental Hazardous Substances. All products are evaluated for hazard and assigned hazard classifications as required by law. 2020 ESG Report (Sustainable Chemistry, page 20) 2020 ESG Report (From Idea to Sustainable Solution: How We Innovate, page 21) Economic Performance page 2
	RT-CH-410b.2	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	2020 ESG Report (Sustainable Chemistry, page 20) 2020 ESG Report (From Idea to Sustainable Solution: How We Innovate, page 21) Supply Chain Conflict Minerals Policy Conflict Minerals Report Supplier Code of Conduct Sustainability Goals
Genetically Modified Organisms	RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Zero.
Management of the Legal & Regulatory Environment	RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	2020 ESG Report (Energy, Emissions and Climate Change, page 26) 2020 ESG Report (Promoting Diversity and Inclusion, page 31) 2020 ESG Report (Stakeholder Engagement, page 48)
"Operational Safety, Emergency Preparedness & Response"	RT-CH-540a.1	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR) and Process Safety Incident Severity Rate (PSISR)	2020 ESG Report (Measuring Health and Safety Performance, page 37) Environmental Health & Safety page 6 Global Environmental, Health and Safety Policy
	RT-CH-540a.2	Number of transport incidents	Zero.
Production	RT-CH-000.A	Production by reportable segment	2020 ESG Report (Who We Are, page 2) 2020 ESG Report (Enabling the Products of Everyday Life, page 3) 2020 ESG Report (Our End Markets, page 4) 2020 ESG Report (Our Strategy, page 5) 2021 10-K Annual Report (Business, page 1) ESI Website (Overview) ESI Website (Key Markets)

Task Force on Climate-related Financial Disclosure (TCFD) Index

We recognize that climate change is one of the most important issues facing the global community and support the work of the Task Force on Climate-related Financial Disclosures (TCFD). Identifying climate-related risks and opportunities as well as their potential financial impacts is challenging due to the large-scale and long-term nature of climate change. Yet, strategic and risk management decisions on managing those risks and seizing those opportunities depend on our ability to identify the specific climate-related risks and opportunities to which we are exposed. To this end, we intend to increase awareness and transparency about climate-related risks and opportunities within our organization. This approach will improve our understanding of climate-related impacts specific to our operations and allow us to pay further attention to risks that may arise and opportunities that may exist as a result of climate change. This improved knowledge will also allow for enhanced disclosure going forward.

Our first TCFD Index below is aligned with the four sections of the TCFD framework: (1) governance, (2) strategy, (3) risk management and (4) metrics and targets. For additional information on our ESG journey, please visit: elementsolutionsinc.com/sustainability

GOVERNANCE

Disclose the organization's governance around climate-related risks and opportunities.

Disclosure Topic

Cross-reference or Answer

Describe the board's oversight of climate-related risks and opportunities

[2020 ESG Report](#) (Governance and Compliance, pages 46-47)
[Nominating and Policies Committee Charter](#)

Our Board of Directors is responsible for the oversight of ESI on behalf of our stockholders. The Board usually meets at least quarterly to review performance and consider key strategic matters and enterprise risks, which include, where relevant, the impact of climate-related risks and opportunities on ESI's strategy. In addition, Board committees provide oversight of, among other items, sustainability matters, audit and risk.

The Board of Directors' Nominating and Policies Committee (Board Committee) is responsible for overseeing ESI's sustainability and social responsibility efforts and related policies, including with respect to risks and opportunities related to climate change, where deemed appropriate. The Board Committee oversees our internal ESG reporting and, together with the Board and Audit Committee of the Board, our planned integration of ESG issues into our company risk management analysis.

Our ESG Executive Steering Committee (ESG Committee) provides periodic ESG updates and, when appropriate and/or as requested by the Board Committee or the Board, makes recommendations to the Board Committee (or the Board, as requested) on ESG strategy and performance.

Disclosure Topic**Cross-reference or Answer**

Describe management's role in assessing and managing climate-related risks and opportunities

[2020 ESG Report](#) (Governance and Compliance, pages 46-47)

[2020 ESG Report](#) (Our ESG Priorities, page 9)

[2020 ESG Report](#) (ESG Moving Forward, page 10)

[Sustainability Goals](#)

Our ESG Committee, comprised of our CEO, CFO, General Counsel, Head of Supply Chain and Head of HR, oversees ESI's ESG policies and practices throughout our business, including climate-related risks, opportunities and strategy-setting process. The ESG Committee meets on a quarterly basis and receives updates from our Supply Chain Sustainability Council (SCSC).

Our SCSC, which is comprised of functional leaders from across the company, oversees the implementation of our sustainability strategy and our performance against our sustainability goals. The SCSC meets weekly and reports to the ESG Committee quarterly to provide updates, assist in oversight and receive input on important ESG focus areas and the direction of sustainability work within ESI.

Our ESG Strategy Director, the SCSC and the ESG Committee engage with global functional leaders from our R&D, Supply Chain, Risk Management and business teams to assess climate-related risks and opportunities. This stakeholder group periodically evaluates material risks and opportunities based on their potential impact on our business and supply chain. In addition, each operating business unit and its leadership provide input on our process for identifying, characterizing, and responding to climate-related issues. Once identified, initiatives to address risks are coordinated by our Director of Risk Management. As needed, issues and mitigating strategies are communicated to our organizational leaders across our businesses and, where appropriate, to our Board of Directors.

Our CEO is directly accountable to our Board for progress toward our sustainability goals as approved and monitored by the Board. The CEO sets sustainability goals and objectives for our CFO and his team, to drive responsibility for achievement of these goals into the organization. In addition, our ESG Strategy Director is compensated based on demonstrated steps toward and achievement of sustainability-related goals. Certain members of the SCSC also have sustainability-related performance objectives, which are factored into these individuals' merit reviews.

STRATEGY

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

Disclosure Topic**Cross-reference or Answer**

Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term

[2020 ESG Report](#) (Energy, Emissions and Climate Change, pages 26-29)

[2020 ESG Report](#) (Sustainable Chemistry, pages 20-25)

[Sustainability Goals](#)

Climate-related risks

We recognize that there are two aspects of climate risks to consider – physical and transition risks. These risks have different implications over the short, medium and long term. We are currently assessing the preliminary risks that are specific to our operations, their potential impacts and how to address them. This assessment will also help us better define the time horizons of these risks and our response to climate change.

Our customers depend on our timely delivery of products of reliable quality. Our products are integral to their manufacturing processes and overall product performance. Our ability to meet these expectations relies on continuous access to multiple sources of raw materials and working closely with our suppliers and contract manufacturers to help ensure continuity of supply while maintaining high quality. Physical risks, both acute and chronic, could disrupt our worldwide operations and supply chain and increase the potential financial impact of these disruptions by, for example, limiting access to the quantity and quality of raw materials we need and/or increasing the prices of these materials as worldwide supply and demand may be impacted.

Physical risks may also cause physical damage to, or the closure of, one or more of our manufacturing, R&D or technical service facilities. Climate-related events could also increase the risk of releases or other discharges of toxic or hazardous substances. One-time costs and/or increased operating costs in general may arise from extreme weather events or changing weather patterns, especially with respect to facilities, source of raw materials, suppliers or even customers in "high risk" locations. We believe climate change serves as a risk multiplier increasing both the frequency and severity of natural disasters that may affect our worldwide operations. As a result, current or future insurance arrangements may not provide protection for these costs, particularly if such events are catastrophic in nature or occur in combination.

Due to the formulation-based nature of our operations, our energy consumption is lower than that of other more traditional chemical manufacturers. Regardless, transition risks could arise from emerging regulations or policies that may, for example, increase pricing of GHG emissions, require the substitution of existing products and services with lower emissions options, which may in turn require greater R&D focus and expenses towards sustainable chemistry and/or impose increased reporting obligations.

Disclosure Topic

Cross-reference or Answer

Climate-related opportunities

"Enabling Sustainability" is one of the five pillars of our strategy and, in our business, the intersection between sustainability and profitability is well-established. In 2020, revenue from sustainable products, as defined in our 2020 ESG report, was \$450 million, which represented ~25% of our 2020 total net sales. In 2021, this number increased to \$650 million, representing ~27% of our 2021 total net sales. To demonstrate our emphasis on sustainable products, we set a goal in 2021 to increase our sustainable chemistry net sales to \$1 billion by 2030.

We believe climate change presents robust commercial opportunities for our business. We continue to focus a portion of our innovation and commercial efforts on meeting customer needs within the clean technology markets as well as supporting customer efforts to establish a more circular economy within their supply chains. Vehicle electrification is an important end market for us, and we offer numerous relevant technology solutions. Examples include sintered silver technologies that protect the battery inverters and increase efficiency as well as light metal and plastic plating solutions that help reduce overall vehicle weight and increase range, in a cost effective yet aesthetically pleasing manner. Our sintered silver coatings in particular, sold under our *Argomax* brand, have been among our fastest growing products over the past several years. Our electronics circuit board and assembly materials are also used in numerous applications within the production of solar panels and LED systems. Our MacDermid Envio Solutions business focuses specifically on selling innovative equipment and solutions for recycling valuable metals and recovering treated water out of our customers standard production processes. These solutions are cost effective ways for our customers to establish a circular economy within their own facilities and in turn their broader supply chains. We expect these and similar opportunities to become key growth drivers for our business and plan to continue to focus R&D and capital resources in these areas.

Our business is globally diversified with production facilities spanning most of the markets where our customers are located around the world. Overall, we believe we have a robust supply chain and logistics network with multiple suppliers and manufacturing redundancies. Internally, our business continuity and disaster recovery system, developed and tested by our enterprise Risk Management function, is intended to ensure continuity of supply to our customers. We believe this ability to source raw materials and ship products from multiple locations around the world is a competitive advantage and presents a commercial opportunity for us in the face of physical climate risks that may occur in the future. Our global technical know-how and continued diversification of our network, including the development of state-of-the-art facilities close to key customers and the reinforcement of more local supplier relationships through our increased presence in key markets, should also allow us to support more environmentally sustainable product offerings while reducing our carbon footprint, which we believe our customers are beginning to expect.

We also consider alternative energy sources as a climate-related opportunity. The use of lower emissions energy sources and new energy-efficient production technologies may lead to reduced operational costs, reduced exposure to potential future energy price increases and reduced exposure to GHG emission regulations. These cost savings would allow our business to operate in a more environmentally friendly manner and as such, improve the company's reputation among its stakeholders and markets.

With a more sustainable business, we may have access to new and emerging markets for our sustainable solutions, allowing for higher revenue. As our sales from sustainable products increase, we may also qualify for financing dedicated to green businesses or attract investors that specialize in green investments. As employees' preference evolves toward more environmentally and socially responsible businesses, we may also have greater recruiting capabilities, employee engagement and employee satisfaction.

We believe our overall business operational structure, flexible supply chain and comprehensive risk management procedures provide a strong foundation for managing potential climate-related risks and opportunities. We plan to further assess these and other potential risks and opportunities on an ongoing basis and update our conclusions as appropriate based on this process.

The risk information above and other related information on the Sustainability pages of our website or in our 2020 ESG report should not be construed as a characterization of the materiality or financial impact of that information. Please see our SEC filings for more detail.

Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

[2020 ESG Report](#) (Sustainable Chemistry, pages 20-25)

[2020 ESG Report](#) (Environmental Compliance, page 18)

[2020 ESG Report](#) (Environmental Compliance Initiatives, page 19)

Impact on Business and Strategy

Opportunities in new sustainable chemistry products, such as those described in our 2020 ESG report and new cleantech-related products, align well with our business in general and our sustainability strategy in particular. We focus on removing hazardous chemicals through green chemistry, reducing environmental impact with innovation, and enabling the circular economy. This strategy aims to expand our products and services. We believe it also strengthens our ability to diversify our business activities and address shifts in supplier and consumer preferences.

Impact on Financial Planning

Although we believe we have robust supply chain and distribution networks, we may still be exposed to severe weather conditions and natural disasters. These events have the potential to cause business interruptions and adversely affect our operations. These changes can also lead to increased costs and liabilities. By continuing to improve supply chain resiliency at locations subject to physical events, we expect to mitigate future climate-related risks associated with manufacturing vulnerability.

The shifting demand of our customers toward more environmentally friendly products requires greater R&D focus on and expenses related to sustainable chemistry, or processes that have a lower carbon footprint. This shift in customer preferences may lead to additional costs, but also increased revenue and enhanced competitive advantage. Consistent with our sustainable chemistry strategy, we intend to focus on new revenue streams related to sustainable products and in 2022, announced our goal to more than double our 2020 net sales from sustainable products to over \$1 billion in total net sales by 2030.

We are also exposed to the risk of emerging and escalating carbon pricing regulations. Carbon pricing programs can significantly increase both energy costs and indirect expenses related to raw materials used in our products and electricity required for operations. Using the market-based methodology outlined in the World Resource Institute's GHG protocol, we assess the Scope 1 and 2 emissions generated by our organization. Through this process, we measure the carbon emissions associated with the fuels we utilize for heating our buildings and backup generators (Scope 1) and the electricity we purchase to power our operations (Scope 2). We are also proactive in the reduction of our emissions and in 2022, announced our goal to reduce our Scope 1 and Scope 2 GHG emissions intensity by 25% per metric ton of production by 2030 from a 2020 base of 0.22 CO₂e/MT.

Additionally, other transition risks, such as potentially more stringent ESG-related regulations or policies, may result in greater operating costs, including increased expenses related to compliance, higher insurance premiums, and the early retirement of assets/PPE; all of which could, in turn, result in greater capital expenditures and higher costs associated with alternative sources of energy (e.g., PPA, solar panels). However, a significant increase in demand of cleantech products may also support revenue growth as our sustainable products are sold to a variety of cleantech industries, such as electric vehicles and solar panels.

Although we have not yet quantified the details around the potential effects of climate change to our business, strategy, and financials, we have had qualitative discussions with major stakeholder groups at the organization. The process of identifying our climate-related risks and opportunities was driven by our ESG Strategy Director, the SCSC and the ESG Committee considering the nature of our businesses, the industries in which we operate and the markets we serve. Once identified and assessed, these climate-related risks and opportunities were presented to our functional leaders in R&D, supply chain as well as a broader group of commercial leaders across the organization for further assessment and discussion.

Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

[2020 ESG Report](#) (Energy, Emissions and Climate Change, page 26)

We plan to conduct a climate scenario analysis to assess the climate-related risks and opportunities we identified for our business leveraging the TCFD recommendations.

We intend to monitor and discuss potential changes to our strategy based on this assessment and as risks and opportunities evolve. In a business-as-usual scenario, the potential financial impact of the risks related to our supply chain, high-risk locations, and emerging regulations may become more pressing. Similarly, opportunities related to our supply chain resilience, shift in consumer preferences and access to new markets may become more tangible.

We believe our overall business operational structure, flexible supply chain and comprehensive risk management procedures provide a strong foundation for managing potential climate-related risks and opportunities.

RISK MANAGEMENT

Disclose how the organization identifies, assesses, and manages climate-related risks.

Disclosure Topic

Cross-reference or Answer

Describe the organization's processes for identifying and assessing climate-related risks

[2020 ESG Report](#) (Energy, Emissions and Climate Change, pages 26-29)
[2020 ESG Report](#) (Sustainable Chemistry, pages 20-25)
[2020 ESG Report](#) (Governance and Compliance, pages 46-47)
[Sustainability Goals](#)

Identification of Climate-related Risks and Opportunities

The identification of our climate-related risks and opportunities is integrated into the company's risk management program and procedures designed to identify and assess global risks and opportunities to our business, including sustainability risks and potential new revenue streams related to sustainable chemistry. As part of this risk management system, our business units and global supply chain leaders are responsible for identifying, assessing, managing, and monitoring risks associated with their business area.

Assessment of Climate-related Risks

Climate-related risks may affect our operations. We are in the process of assessing these risks based on their magnitude, likelihood of impact, and potential financial impact. These impacts include the potential for increased costs and disruption or delays in manufacture or delivery to customers. Our assessment relies on management's evaluation of current events and our expectations regarding future developments.

Describe the organization's processes for managing climate-related risks.

[2020 ESG Report](#) (Sustainable Chemistry, pages 20-25)
[2020 ESG Report](#) (Environmental Compliance Initiatives, page 19)
[2020 ESG Report](#) (Energy and Emissions Reduction Initiatives, page 27)
[Sustainability Goals](#)

ESI's climate-related monitoring and management strategies and initiatives include:

- Engaging in business continuity planning throughout the year to respond to potential impacts to our personnel and operations
- Enhancing supply chain resilience with multiple sources of raw materials and manufacturing redundancies
- Utilizing business disruption insurance to help mitigate the impact of a variety of disruptive events. For example, our global property insurance program addresses physical damage resulting from certain severe-weather events or natural disasters, and our global stock throughput insurance programs cover losses of raw materials or finished goods while stored or in transit
- Proactively monitoring registration and compliance requirements as they develop
- Increasing implementation of ISO 14001 Environmental Management Systems, with 87% of our facilities ISO 14001 certified in 2021
- Conducting periodic internal environmental compliance audits at our U.S. and international sites by our Corporate Environmental Health & Safety (EH&S) group and our local EH&S managers, with a goal of auditing of each site at least once every three years
- Entering into energy efficiency partnership – In 2020, we entered into a 5-year management partnership with Siemens Industry, Inc. for the centralized collection, audit and analysis of key energy performance data at our facilities

While it is difficult to predict when a crisis or climate-related business disruption may occur, our risk management and business continuity procedures are designed to address a variety of disruptive scenarios. In addition to business continuity testing, our ongoing environmental audits are designed to help us identify and remediate gaps in our risk management process. As it relates to regulatory risks, the SCSC and our EH&S group work with our businesses to track environmental policy changes and where necessary, model scenarios and learn from case studies. If and when risks materialize, relevant subject matter experts will be engaged to address these risks and their potential impact. These working groups are identified as the first and second lines of response, and exist both at the supply chain and corporate levels. Issues and mitigating responses are communicated to our organizational leaders and to our Board of Directors as needed.

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

[2020 ESG Report](#) (Governance and Compliance, pages 46-47)
[Nominating and Policies Committee Charter](#)

Sustainability and climate-related risks are part of our company-wide risk management assessment program. This program is used to identify, assess, quantify, and respond to a comprehensive set of risks in an integrated and informed fashion. To inform our risk assessment, our management works with subject matter experts to identify and characterize key risks that may affect the organization's business activities. Periodically, we conduct a Business Impact Analysis survey that helps us understand the risks our supply chain may be exposed to. Our ESG Committee engages more specifically in the identification of ESG-related risks, including those specific to climate change. With respect to risks identified as critical, each corporate department and geography in which we operate has a designated team responsible for emergency response and business recovery. Training, maintenance, compliance, and planning are all incorporated into our risk management and business continuity planning and processes.

Our Board of Directors is also actively involved in the oversight of risks, including overall strategy and management of key risks the company faces. Updates on our risk assessment and management process are provided to the Board on an annual basis, or more frequently as the need arises.

METRICS & TARGETS

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Disclosure Topic

Cross-reference or Answer

Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

[2020 ESG Report](#) (Energy, Emissions and Climate Change, page 26)
[2020 ESG Report](#) (Environmental Compliance, page 18)
[Energy and Emissions](#) page 3

On a quarterly basis, we review environmental data including Scope 1 and Scope 2 GHG emissions generated by our organization. Scope 1 emissions include direct emissions from sources owned or controlled by the company. We track emissions data containing Scope 2 (indirect) emissions using the market-based methodology outlined in the World Resource Institute's GHG protocol. The table below presents a few of the metrics we use to monitor our environmental footprint, including energy consumption and energy consumption intensity.

In the US, for example, in 2020 we entered into a 5-year energy efficiency partnership with Siemens Industry, Inc. to centrally collect, audit and analyze our key energy performance. We plan to globalize this agreement in the future. We also monitor other energy efficiency and renewable energy projects, physical climate risks associated with our sites, and regulatory changes associated with climate change with the help of our EH&S team, and the SCSC.

Metric

Total Emissions Intensity (MT CO₂e per MT of Production)
Total Energy Consumed (GJ)
Total Energy Consumption Intensity (GJ per MT of Production)
Total Renewable Energy Sourced or Generated (GJ)
Renewable Energy as a % of Total Energy Consumed

Performance

0.21 MT CO₂e/MT
474,175 GJ
2.37 GJ/MT
29,500 GJ
6.2%

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

[2020 ESG Report](#) (Energy, Emissions and Climate Change, page 26)
[Energy & Emissions](#) page 3

ESI's 2021 GHG performance:

We review our emissions data containing Scope 2 (indirect) emissions using the market-based methodology outlined in the *World Resource Institute's* GHG protocol. The data below represents our full 2021 performance, from 1/1/2021 to 12/31/2021. We review our performance on a quarterly basis. We are in the process of collecting information about our Scope 3 emissions and intend to incorporate this data into our disclosures in the future.

Metric

Scope 1 (MT of CO₂e)
Scope 2 (MT of CO₂e)
Total Scope 1 & 2 (MT of CO₂e)

Performance

13,050 MT
28,400 MT
41,450 MT

Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

[Sustainability Goals](#)
[2020 ESG Report](#) (Sustainable Chemistry, pages 20-25)

In 2022, we announced our 2030 goal to reduce our Scope 1 and Scope 2 GHG emissions intensity by 25% per metric ton of production from a 2020 base of 0.22 CO₂e/MT. We intend to monitor progress against this goal on a quarterly basis.

We set our 2030 GHG emissions goal by working closely with the SCSC to understand the concentration of our footprint across our sites, and the feasibility of lowering our Scope 1 and Scope 2 emissions. The SCSC conducted market research and benchmarking analysis against peer companies to understand best practices for setting emissions targets. A subset of the SCSC was tasked to report findings to the ESG Committee and conduct further analysis to determine the feasibility of pursuing our 2030 goal under a variety of different strategies.

Following discussions with leadership, we also set a target related to our sustainable chemistry revenues. More specifically, in 2022, we announced our goal to more than double our 2020 net sales from sustainable products, as defined in our 2020 ESG report, to over \$1 billion in total net sales by 2030. We believe clean tech is a growth area for our business and this goal emphasizes our commitment to a more sustainable product offering.

This 2030 goal excludes the impact of our 2021 and 2022 acquisitions, namely H.K. Wentworth Limited, Coventya Holding SAS and HSO Herbert Schmidt GmbH & Co. KG and their respective subsidiaries. We intend to assess the materiality and scope of the GHG emissions of these additional sites as appropriate.

About This Update

Unless otherwise noted, this 2021 ESG Data & Resources (the “2021 ESG Update”) supplement covers the period of January 1, 2021 to December 31, 2021 and provides updated and supplemental qualitative and quantitative information with respect to certain key ESG topics described in our 2020 ESG report, which can be found on our [Sustainability Website](#).

We intend to continue to report on ESG matters and progress toward our 2021 Sustainability Goals going forward. For additional information, see our [Sustainability Goals](#).

Update Boundaries

In this 2021 ESG Update, the terms “Element Solutions,” “we,” “us,” “our,” “ESI,” and the “company,” refer to Element Solutions Inc, a Delaware corporation, and its consolidated subsidiaries, taken as a whole, unless the context otherwise indicates.

Our updated environmental data includes 39 of our 60 manufacturing facilities (excluding one de minimis site and facilities acquired in 2019, 2020 and 2021), including on-site labs, offices and warehouses. Standalone warehouses, labs, offices and other structures are not included at this time. We acquired 15 new facilities in 2021 as part of the acquisitions of the H.K. Wentworth and Coventya Holding groups in May and September 2021, respectively. The integration of our acquired businesses remains on-going and we expect to incorporate their ESG data in the near future.

Our updated social data is based on our 5,310 full time employees as of December 31, 2021.

Reporting Guidelines and Content

We prepared this 2021 ESG Update leveraging the GRI Standards (Core option), the SASB Chemicals Industry Standards and the TCFD Recommendations. Our 2021 ESG data and GRI, SASB and TCFD indexes may be found prior to this page.

Our 2021 TCFD Index, which marks the first time we are reporting following the TCFD Recommendations format, demonstrates our commitment to providing transparency on our approach to managing climate-related risks and opportunities across our businesses.

Reporting Uncertainties

Non-financial information is subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different, but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Unless the context otherwise indicates or requires, all our product names, trade names, trademarks, service marks or logos used or referenced in this 2021 ESG Update are part of the company’s intellectual property, although the “©” and “TM” trademark designations may have been omitted. All rights to such intellectual property are reserved.

Special Note Regarding Forward-Looking Statements

This 2021 ESG Update includes “forward-looking statements” (including within the meaning of the Private Securities Litigation Reform Act of 1995) with respect to current and future potential implications of corporate social responsibility and sustainability topics and other statements that are not historical facts. These forward-looking statements will often contain words such as “expect,” “anticipate,” “project,” “will,” “should,” “believe,” “intend,” “plan,” “assume,” “estimate,” “predict,” “seek,” “continue,” “outlook,” “may,” “might,” “aim,” “can have,” “likely,” “potential” “target,” “hope,”

“goal,” “priority,” “guidance,” “confident,” “committed,” “designed” or “strive” and variations of such words and similar expressions. These statements should be evaluated with caution considering the many risks and uncertainties inherent in our business that could cause actual results and events to differ materially from those stated or implied in these forward-looking statements. Such forward-looking statements are based on expectations, assumptions, estimates and other projections about the company with respect to future events and/or financial performance, and are believed to be reasonable, though are inherently uncertain and difficult to predict. Such projections are based on the assessment of information available to the company as of the date of this 2021 ESG Update and we do not undertake any obligations to provide any further updates. Actual results of the company may differ materially from any future results expressed or implied in the forward-looking statements if one or more of these underlying projections prove to be inaccurate or are unrealized.

There can be no assurance that our expectations or the forward-looking statements included in this 2021 ESG Update will prove to be correct. Any public statements or disclosures by the company following this 2021 ESG Update that modify or impact any of the forward-looking statements contained in or accompanying this 2021 ESG Update will be deemed to modify or supersede such outlook or other forward-looking statements. These forward-looking statements speak only as of the time of such statements and we do not undertake or plan to update or revise them, whether as a result of new or more information becoming available, changes in expectations, assumptions, estimates or results, future events or otherwise.



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