Northern Technologies International Corporation Fiscal 2021 Annual Report

Northern Technologies International Corporation

- Notice of 2022 Annual Meeting
- Proxy Statement
- Annual Report on Form 10-K - August 31, 2021

Our Mission:

Our business model of commercializing clean and green technologies depends heavily on the talents, perseverance and integrity of both our employees and our worldwide federation of joint venture partners. We believe that our responsibilities are first to our worldwide customers, then to our people, next to our communities and finally to our shareholders. Therefore we must:

- *Exercise honor, humanity and disciplined management in our actions.*
- *See a unified world through the global perspectives of our people.*
- *Ensure that the environment becomes a better place because of what we do.*
- *Invest continuously in our future.*

Our Environment:

NTIC uses advanced technologies to care for the world we live in, give back to society and strive to set an example for environmental leadership and responsibility.

At NTIC, we believe that there is no alternative to doing environmentally sustainable business while working to grow the bottom line.

We encourage our employees, joint venture partners, distributors, affiliates and suppliers to carry out our environmental commitments at the individual level through:

- *Environmentally responsible business practices.*
- *Advanced R&D processes that promote the use of environmentally responsible raw materials.*
- *Selecting components and manufacturing processes that reduce waste and an impact on the environment.*
- *Raising awareness about our technologies and how they can help solve current environmental challenges.*
- *Each NTIC employee is expected to practice an individual commitment to sustainability and environmental responsibility in the workplace.*

Through our commitments to lessen our environmental footprint and our advanced technologies which allow others to practice sustainability, we have the power to benefit ourselves as individuals, our federation of NTIC joint ventures and our environment for many generations to come.

Our Technology Platforms:

ZERUST®/EXCOR® manufactures and markets corrosion inhibiting technologies that provide customers with advanced solutions for corrosion across their production facilities and supply chains. The technology uses proprietary chemical systems to create invisible molecular corrosion shields on metal surfaces. The ZERUST®/EXCOR® teams support clients globally in a broad range of industries including automotive, electrical, electronic, medical, machine fabrications, steel production, military and marine. ZERUST®/EXCOR® products and services allow customers to achieve substantial cost savings as well as reduce the negative environmental impact caused by traditional corrosion prevention methods and the waste caused by the corrosion of metal assets.

Zerust® Oil & Gas provides advanced corrosion control technologies and services to the petrochemical industry. Zerust® Oil & Gas products and services utilize Zerust® proprietary corrosion inhibitors in combination with advanced cathodic protection systems to dramatically enhance the corrosion protection of capital assets. These assets include above-ground storage tanks, various pieces of process equipment, buried and submerged pipelines, mothballed large capital equipment, pipeline flanges, valves, and welded joints. Zerust® Oil & Gas technologies are currently implemented in refineries, offshore oil rigs, tank farms and retail gas stations in several countries.

Natur-Tec® engineers and manufactures biobased and biodegradable plastic resins intended to replace conventional, petroleum-based plastics. Natur-Tec® has a broad bioplastics portfolio which spans flexible film, foam, rigid injection molded materials and engineered plastics. These applications allow for the production of 100% certified compostable finished products, such as bags, food service products, and product packaging. Natur-Tec® products are renewable resource based and do not contain conventional plastic materials. Natur-Tec® products provide sustainable alternatives to conventional plastics and enable industry and consumers to move closer to a carbon neutral footprint.

To the Stockholders of Northern Technologies International Corporation (NTIC),

We are proud of our fiscal 2021's strong operating and financial results. Our performance was especially encouraging, given that we not only had to continue to navigate COVID-19 pandemic challenges, but also global supply chain bottlenecks and related material shortages. Fiscal 2021 was a transformative year of recovery, reinvestment, and growth, made possible by our long-term focus, and the support of our customers, employees, joint venture partners and suppliers.

From the onset of the COVID-19 pandemic, we were well positioned to maintain our operations, staffing levels and services to our customers, while investing in new product development and pursuing new sales opportunities. This kept us ready to benefit from a significant resurgence in industrial production that started to occur in the second half of fiscal 2021. In fact, as we exit the COVID-19 pandemic, we are in a stronger competitive position and with a higher level of profitability. I believe this can be attributed to our strong global customer base, business model, and cost structure.

During fiscal 2021, we also made certain one-time strategic investments in our business and reinstated our quarterly cash dividend as a sustained macroeconomic recovery became clearer. In the fourth quarter, we invested $6.2 million to buy a new facility in China, reflecting our commitment to the Chinese market and supporting our expected future growth within this geography. The new facility, anticipated to open in February 2022, will support our R&D, production, sales and marketing and training efforts in what we believe will become our largest geographic market.

Additionally, after fiscal 2021 ended, we acquired the remaining 50% ownership interest in our Indian joint venture, HARITA-NTI LTD., also known as Zerust India, for $6.25 million in cash. We funded this purchase mostly with cash on hand and some borrowings under our revolving line of credit, which was increased in connection with the transaction to $5.0 million. Zerust India is now a wholly owned subsidiary of NTIC and will be fully consolidated in NTIC's consolidated financial statements beginning in fiscal year 2022. Zerust India is expected to contribute approximately $10.0 million in net sales along with over $2.2 million in net income during fiscal year 2022, amounting to an additional anticipated $0.10 per diluted share. Many of our multinational customers either have their own operations in India or have suppliers based there, making it one of our strongest international markets. As a result, we are positioned to further enhance our presence in India.

NTIC's Board of Directors reinstated our regular quarterly cash dividend in May 2021. This followed a brief and prudent suspension during fiscal 2020, as a result of the uncertainty caused by the COVID-19 pandemic. Furthermore, on October 20, 2021, NTIC's Board elected to increase our quarterly cash dividend payment to $0.07 per share, representing the third increase in our quarterly dividend since 2017.

The entire NTIC team, both employees and our joint venture partners, has been working tirelessly alongside our customers, suppliers, and vendors to work through global supply chain challenges, including the availability of raw materials, labor, and inflation. While many of these challenges are expected to remain throughout our fiscal 2022, I believe NTIC's asset-light business model and global presence in over 65 countries provides the Company with an advantage navigating these macro-related headwinds.

Our strong financial position has continued to contribute to our success. We ended fiscal 2021 with no debt and $7.9 million in cash, cash equivalents and available for sale securities. Our cash, cash equivalents and available for sale securities declined on a year-over-year basis as a result of the $6.2 million investment we made in the fourth quarter to buy our new Chinese facility. NTIC's highly profitable financial model, combined with our approximately $15.9 million investment in our joint ventures, provides the Company with the financial flexibility to continue allocating capital to support our future growth initiatives and quarterly dividend program.

Looking at fiscal 2021 financial results in more detail, NTIC's consolidated net sales for fiscal 2021 were a record $56.5 million. The 18.6% annual increase in net sales was a result of a 32.1% increase in total ZERUST® sales driven by a rebound in global manufacturing from last year's impacts of the pandemic and a 36.3% increase in ZERUST® Oil & Gas net sales. Partially offsetting these trends was a 16.9% decline in annual Natur-Tec® sales as this business recovers from the pandemic's impact.

Improving global market conditions throughout fiscal 2021 also expanded the financial performance across many of our joint ventures. Record joint venture sales helped increase NTIC's joint venture operating income by 51.2% to $13.4 million, compared to joint venture operating income of $8.9 million during the fiscal year ended August 31, 2020.

Profitability improved materially in fiscal 2021 due to strong sales growth, prudent operating expense management and a $4.5 million increase in joint venture operating income. Net income attributable to NTIC was $6.5 million, or $0.66 per diluted share, compared to a net loss of $1.3 million, or a loss of $0.15 per diluted share, last fiscal year. The net loss attributable to NTIC for fiscal year 2020 included a one-time $1.6 million non-cash adjustment to the Company's U.S. deferred tax asset, which was required to remove the net U.S. deferred tax asset from NTIC's balance sheet.

ZERUST® Industrial Corrosion Prevention

ZERUST® industrial sales benefitted from the global resurgence of industrial production that occurred throughout fiscal 2021, and we experienced strong demand both in North America and across the territories served by our global joint ventures. Sales by our joint ventures increased approximately 39.0% to a record $121.0 million during the fiscal year ended August 31, 2021, compared to $87.0 million for the fiscal year ended August 31, 2020.

Net sales at our wholly owned NTIC China subsidiary also rebounded throughout fiscal 2021 and increased by over 29.0% for the full year to an annual record of $17.3 million. Strong performance at NTIC China is primarily due to higher sales to new and existing customers. We continue to believe the Chinese market represents a significant opportunity for NTIC. Given our recent growth and strong team, we expect China will likely become our largest geographic market in the years ahead.

Overall, ZERUST® industrial sales trends rebounded significantly during fiscal 2021 and were up over 30.0% over the prior fiscal year. Notably, on a two-year basis, comparing fiscal 2021 to fiscal 2019 results, ZERUST® industrial sales increased nearly 18.0% reflecting strong underlying trends across our global ZERUST® industrial business. We are optimistic that the start of fiscal 2022 will show continued positive momentum across our markets as global industrial production remains strong.

ZERUST® in the Oil & Gas Industry

ZERUST® Oil & Gas sales started to rebound during the second half of fiscal year 2021 as lockdowns and travel restrictions were lifted and we were able to implement our corrosion prevention solutions at client jobsites. As a result, we ended the year with strong momentum for our ZERUST® Oil & Gas solutions. Fiscal 2021 fourth quarter ZERUST® Oil & Gas sales increased 139.6% over the prior fiscal year period, and for the first time in our history, we have had two consecutive quarters of oil and gas revenues over $1 million.

I am also pleased to report, NTIC is getting noticed globally for our growing base of successful installations of oil & gas assets protected by our Vapor Corrosion Inhibitor (VCI) based technologies. During fiscal 2021, the American Petroleum Institute (API) released its technical report detailing how VCI based technologies, like the ones offered by ZERUST® Oil & Gas, can provide effective corrosion protection for the bottoms of above ground storage tanks. We believe this API technical report validates our technology and will help NTIC's long-term sales growth efforts within the oil & gas market. As a result, we believe there are substantial opportunities to drive growth throughout fiscal 2022 and beyond.

Natur-Tec® Bioplastics

The COVID-19 pandemic continued to impact our Natur-Tec® business during fiscal 2021. Many high-volume users of compostable products including college campuses, stadiums, arenas, restaurants, and cafeterias in large corporate office complexes have remained affected by lower attendance and measured reopening plans. As a result, Natur-Tec® sales declined 16.9% to $10.9 million for fiscal 2021.

Quarterly sales trends improved on a year-over-year basis during the second half of fiscal 2021 but are not yet back to pre-COVID levels. We expect quarterly volatility will remain over the near-term as it takes time for large users of compostable plastics to fully re-open their facilities after prolonged COVID-19 shutdowns. However, we remain optimistic about our long-term prospects and strong market position within this large and compelling global market. In addition, as the focus on the pandemic wanes, we expect social and political support for alternatives to single-use plastics to reaccelerate, helping drive future demand for our leading bioplastic solutions.

Closing

I am proud of the progress we made throughout fiscal 2021 and expect the positive momentum to continue into the new fiscal year. This includes the recently announced expansion of our Chinese operation and the purchase of the remaining 50% ownership interest of our Indian joint venture. In addition, we continue investing in our Natur-Tec® and Zerust® Oil & Gas business units to take advantage of long-term trends within these markets. I want to thank all the members of NTIC's global family of employees, joint venture partners, friends and colleagues for their hard work and dedication during fiscal 2021.

As we start fiscal 2022, I am excited by the potential NTIC has for profitable sales growth throughout our ZERUST® industrial, ZERUST® Oil & Gas, and Natur-Tec® product categories.

Sincerely,

G. Patrick Lynch
President & CEO, NTIC

G. Patrick Lynch

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NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

January 21, 2022

The Annual Meeting of Stockholders of Northern Technologies International Corporation, a Delaware corporation, will be held at NTIC's corporate executive offices located at 4201 Woodland Road, Circle Pines, Minnesota 55014, beginning at 12:00 p.m., Central Standard Time, on Friday, January 21, 2022, for the following purposes:

1. To elect seven persons to serve as directors until our next annual meeting of stockholders or until their respective successors are elected and qualified.

2. To approve, on an advisory basis, the compensation of our named executive officers, as disclosed in the accompanying proxy statement.

3. To ratify the selection of Baker Tilly US, LLP as our independent registered public accounting firm for the fiscal year ending August 31, 2022.

4. To transact such other business as may properly come before the meeting or any adjournment of the meeting.

Due to the evolving nature of the COVID-19 pandemic, we may impose additional procedures or limitations on Annual Meeting attendees or may decide to hold the Annual Meeting at a different venue or solely by means of virtual communication. If we take this step, we will publicly announce the decision to do so in advance, and details on how to participate will be posted on our website at *ir.ntic.com/investor-relations* and filed with the Securities and Exchange Commission as additional proxy materials.

Only those stockholders of record at the close of business on November 23, 2021 will be entitled to notice of, and to vote at, the meeting and any adjournments thereof. A stockholder list will be available at our corporate offices beginning January 11, 2022 during normal business hours for examination by any stockholder registered on NTIC's stock ledger as of the record date, November 23, 2021, for any purpose germane to the Annual Meeting.

By Order of the Board of Directors,

Matthew C. Wolsfeld
Corporate Secretary

December 6, 2021
Circle Pines, Minnesota

Important: Whether or not you expect to attend the meeting in person, please vote by the Internet or telephone, or request a paper proxy card to sign, date and return by mail so that your shares may be voted. A prompt response is helpful and your cooperation is appreciated.

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INTERNET AVAILABILITY OF PROXY MATERIALS

Instead of mailing a printed copy of our proxy materials, including our Annual Report to Stockholders, to each stockholder of record, we have provided access to these materials in a fast and efficient manner via the Internet. We believe that this process expedites your receipt of our proxy materials, lowers the costs of our Annual Meeting and reduces the environmental impact of our meeting. On or about December 6, 2021, we expect to begin mailing a Notice of Internet Availability of Proxy Materials to stockholders of record as of November 23, 2021 and post our proxy materials on the website referenced in the Notice of Internet Availability of Proxy Materials (*www.proxyvote.com*). As more fully described in the Notice of Internet Availability of Proxy Materials, stockholders may choose to access our proxy materials at *www.proxyvote.com* or may request proxy materials in printed or electronic form. In addition, the Notice of Internet Availability of Proxy Materials and website provide information regarding how you may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis. For those who previously requested printed proxy materials or electronic materials on an ongoing basis, you will receive those materials as you requested.

PROXY STATEMENT SUMMARY

This executive summary provides an overview of the information included in this proxy statement. We recommend that you review the entire proxy statement and our 2021 Annual Report to Stockholders before voting.

2022 ANNUAL MEETING OF STOCKHOLDERS

DATE AND TIME

Friday, January 21, 2022
12:00 p.m. (Central Time)

LOCATION

4201 Woodland Road
Circle Pines, MN 55014

Due to the COVID-19 pandemic, the Annual Meeting may be held at a different venue or solely by means of virtual communication.

Proposal	Board's Vote Recommendation	Page
Proposal No. 1: Election of directors	**FOR**	14
Proposal No. 2: Advisory vote on executive compensation	**FOR**	19
Proposal No. 3: Ratification of appointment of independent registered public accounting firm	**FOR**	21

RECORD DATE

November 23, 2021

Holders of record of our common stock at the close of business on November 23, 2021 are entitled to notice of, to attend, and to vote at the 2022 Annual Meeting of Stockholders or any continuation, postponement, or adjournment thereof.

On or about December 6, 2021, we expect to begin mailing a Notice of Internet Availability of Proxy Materials to stockholders of record as of November 23, 2021 and post our proxy materials on the website referenced in the Notice of Internet Availability of Proxy Materials (*www.proxyvote.com*).

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JANUARY 21, 2022

This proxy statement and our 2021 Annual Report to Stockholders are available on the Internet, free of charge, at *www.proxyvote.com*. On this website, you will be able to access this proxy statement, our 2021 Annual Report, and any amendments or supplements to these materials that are required to be furnished to stockholders. We encourage you to access and review all of the important information contained in the proxy materials before voting.

FISCAL 2021 BUSINESS HIGHLIGHTS

Below are highlights of our financial, operational and strategic achievements during fiscal 2021.

Financial

Net Sales	Our net sales increased 18.6% during fiscal 2021 compared to fiscal 2020 due to increased demand globally as a result of the recovery from the COVID-19 pandemic.
Research and Development	We increased research and development spending by 10.6% in fiscal 2021 in order to increase personnel and development efforts, which will allow us to continue growing and adapting our product offerings.
Quarterly Cash Dividends	We reinstated our quarterly cash dividend program during fiscal 2021, which had been suspended due to the pandemic, and paid a quarterly cash dividend of $0.065 per share during each of the last three quarters of fiscal 2021 and we recently increased it to $0.07 per share.

Operational

18 Joint Ventures	Our 18 joint ventures provide us with access to global markets with an annual global market potential estimated at $500 million.
10 Operating Subsidiaries	We maintain 10 wholly or majority-owned operating subsidiaries in North America, South America, Europe and Asia. Effective as of September 1, 2021, we purchased the remaining ownership interest in Harita-NTI Limited, which is now a new wholly owned subsidiary.
Over 60 Countries	Our network of joint ventures and subsidiaries allows us to operate in over 60 countries worldwide, allowing us reach customers globally.

Strategic

Industrial Manufacturing Industry	ZERUST® rust and corrosion inhibiting packaging solutions resolve corrosion problems while reducing operating costs, increasing productivity and enhancing customer satisfaction. During fiscal 2021, ZERUST® industrial sales increased by 30.3% as a result of increased demand.
Oil and Gas Industry	Our global network of trained corrosion management professionals and channel partners help us develop specialized corrosion mitigation solutions for the oil and gas industry, provide local support and conduct client training. During fiscal 2021, sales into the oil and gas industry increased by 36.6% due in part to new opportunities with new customers.
Bioplastics Industry	Our Natur-Tec® biobased and compostable plastics are manufactured using NTIC's patented and/or proprietary technologies and are intended to replace conventional plastics and thereby reduce our customers' carbon footprint and provide environmentally sound waste disposal options. Although sales of our Natur-Tec® products decreased in fiscal 2021, we anticipate increased sales in the future due to re-opening initiatives and government regulation related to disposable plastics in India and China.

CORPORATE GOVERNANCE HIGHLIGHTS

- ✓ Annual election of directors
- ✓ Majority of independent directors
- ✓ Independent Board Chairman
- ✓ Three fully independent Board committees
- ✓ Corporate governance guidelines
- ✓ Annual review of governance documents
- ✓ Stock ownership guidelines for executive officers and directors
- ✓ Recent Board refreshment efforts
- ✓ 100% Board meeting attendance by directors
- ✓ No poison pill
- ✓ Annual say-on-pay vote
- ✓ Robust clawback policy
- ✓ No guaranteed bonuses or significant perks
- ✓ Limits on board memberships held

STOCKHOLDER ENGAGEMENT

We are committed to a robust and proactive stockholder engagement program. The Board of Directors values the perspectives of our stockholders, and feedback from stockholders on our business, corporate governance, executive compensation, and sustainability practices are important considerations for Board discussions throughout the year.

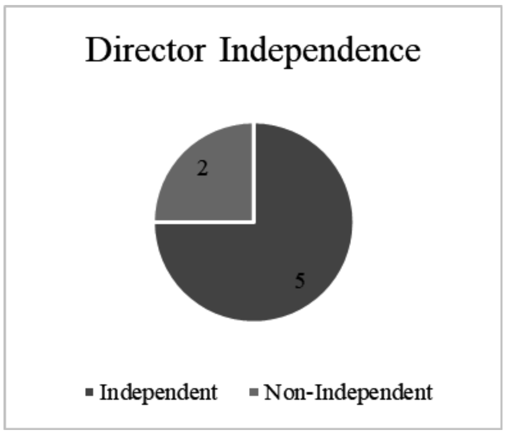
Some of the actions we have taken in response to feedback from proxy advisory firms and stockholders over the last several years are described below.

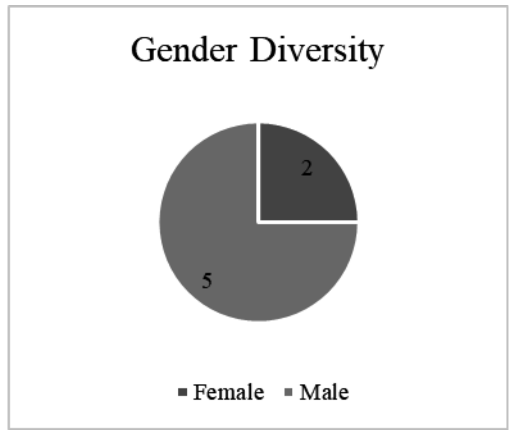
What We Heard	What We Did
Encourage Board refreshment	We added two new members to the Board of Directors in October 2019.
Increase Board gender diversity	We added Nancy E. Calderon and Sarah E. Kemp to the Board of Directors.
Increase stockholder influence over director elections	In November 2020, we adopted a “plurality plus” vote standard for uncontested director elections, with a director resignation policy, instead of a simple plurality vote standard.
Align long-term incentives	We extended the vesting of our annual stock option grants to three-year vesting in response to a concern raised by one of our institutional stockholders.
Increase visibility of Environmental, Social and Governance (“ESG”) principles	We adopted a Health, Safety and Environment Policy as well as a Human Rights Policy to formalize our approach and further our goals with respect to these matters, as described below.
Ensure the recovery of incentive compensation based on incorrect calculations that resulted in a financial restatement or egregious behavior	We adopted a robust clawback policy which applies to not only financial restatements but also if an executive engages in egregious conduct that is substantially detrimental to NTIC.
Align the interests of executive officers and directors with those of stockholders	We adopted stock ownership guidelines applicable to our executive officers and directors to ensure that their interests would be closely aligned with those of our stockholders.

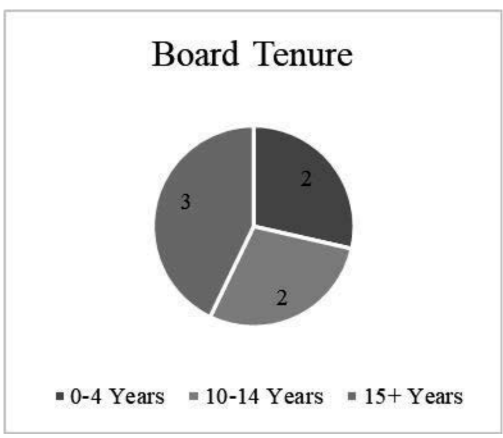
BOARD OF DIRECTORS COMPOSITION AND DIVERSITY

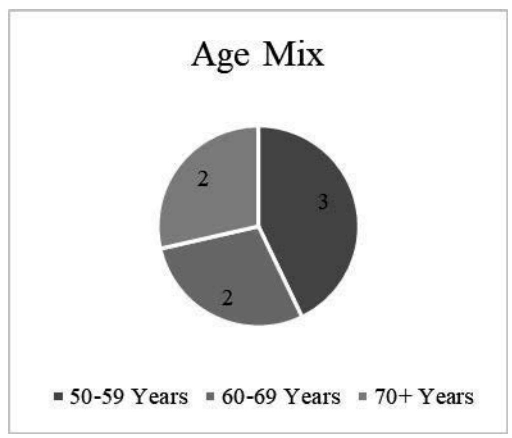
The Board of Directors understands the importance of adding diverse, experienced talent to the Board of Directors in order to establish an array of experience and strategic views. The Nominating and Corporate Governance Committee is committed to refreshment efforts to ensure that the composition of the Board of Directors and each of its committees encompasses a wide range of perspectives and knowledge.

All of our Board nominees collectively bring tremendous diversity to the Board. Each nominee is a strategic thinker and has varying, specialized experience in the areas relevant to NTIC and its businesses. Moreover, their collective experience covers a wide range of geographies and industries, and roles in academia, corporate governance and government. The seven director nominees range in age from 54 to 73; two of the seven director nominees are women; two are of Asian descent; one is a citizen of the Republic of Korea and one is a citizen of Germany.









BOARD OF DIRECTORS NOMINEES

Below are the directors nominated for election by stockholders at the 2022 Annual Meeting of Stockholders for a one-year term. All director nominees listed below served during the fiscal year ended August 31, 2021. Additionally, all director nominees listed below attended 100% of all Board meetings and 100% of the sum of all meetings of the Board of Directors and its committees, as applicable.

Director	Age	Serving Since	Independent
Nancy E. Calderon	62	2019	Yes
Sarah E. Kemp	55	2019	Yes
Sunggyu Lee, Ph.D.	69	2004	Yes
G. Patrick Lynch	54	2004	No
Ramani Narayan, Ph.D.	72	2004	No
Richard J. Nigon	73	2010	Yes
Konstantin von Falkenhausen	54	2012	Yes

The Board of Directors recommends a vote "**FOR**" each of these nominees.

COMMITTEE COMPOSITION

The Board of Directors maintains a standing Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. Below are our current directors and their Board committee memberships.

Director	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee
Nancy E. Calderon	●		
Sarah E. Kemp			●
Sunggyu Lee, Ph.D.		●	
G. Patrick Lynch			
Ramani Narayan, Ph.D.			
Richard J. Nigon	●	●	●
Konstantin von Falkenhausen	●	●	

KEY QUALIFICATIONS

The following are some key qualifications, skills and experiences of our Board of Directors.

Director	Leadership/ Management	Financial Expertise	International Experience	Prior Board Experience	Government Experience	Bioplastics Industry Experience
Nancy E. Calderon	●	●	●	●		
Sarah E. Kemp	●		●	●	●	
Sunggyu Lee, Ph.D.	●		●			●
G. Patrick Lynch	●		●			
Ramani Narayan, Ph.D.	●		●		●	●
Richard J. Nigon	●	●		●		
Konstantin von Falkenhausen	●	●	●			

EXECUTIVE COMPENSATION PHILOSOPHY

Our guiding compensation philosophy is to maintain an executive compensation program that allows us to attract, retain, motivate and reward qualified and talented executives who will enable us to grow our business, achieve our annual, long-term and strategic goals and drive long-term stockholder value.

The following core principles provide a framework for our executive compensation program:

- Align interests of our executives with stockholder interests;
- Integrate compensation with our business plans and strategic goals;
- Link amount of compensation to both company and individual performance; and
- Provide fair and competitive compensation opportunities that attract and retain executives.

EXECUTIVE COMPENSATION BEST PRACTICES

Our compensation practices include many best practices that support our executive compensation objectives and principles and benefit our stockholders.

What we do:	What we don't do:
• Emphasize pay for performance	• No guaranteed salary increases or bonuses
• Structure our executive compensation so a significant portion of pay is at risk	• No repricing of stock options unless approved by stockholders
• Structure our executive compensation so a significant portion is paid in equity	• No pledging of NTIC securities, unless certain criteria are met
• Maintain competitive pay packages	• No hedging of NTIC securities
• Maintain robust clawback policy	• No excessive perquisites
• Hold an annual say-on-pay vote	• No tax gross-ups
• Maintain stock ownership guidelines	

HOW WE PAY

Our executive compensation program consists of the following principal elements:

- Base salary – a fixed amount, paid in cash and reviewed annually and, if appropriate, adjusted.
- Annual incentive – a variable, short-term element that is typically payable in cash and is based on a corporate profitability goal and individual performance goals.
- Long-term incentive – a variable, long-term element that is provided in stock options.

2021 EXECUTIVE COMPENSATION ACTIONS

2021 compensation actions and incentive plan outcomes based on performance are summarized below:

Element	Key Fiscal 2021 Actions
Base Salary	Our executives received no base salary increases during fiscal 2021.
Annual Incentive	Our executives received annual bonuses based primarily on Adjusted EBITOI (earnings before interest, taxes, and other income, as adjusted to

Element	Key Fiscal 2021 Actions
	take into account amounts paid under bonus plan and other adjustments), in amounts representing 87% of their base salaries. A portion of the annual incentive earned for fiscal 2021 was paid in the form of stock option grants made at the beginning of fiscal 2021.
Long-Term Incentive	Our executives received stock option grants on September 1, 2020, which vest annually over a three-year period. A portion of the fiscal 2021 stock option grant was intended as partial payout of the fiscal 2021 annual bonus program.
Health and Welfare Benefits	No significant changes were made.
Retirement Plans	No significant changes were made.
Perquisites	No significant changes were made.

ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Board of Directors is providing our stockholders with an advisory vote on our executive compensation, commonly known as a "say-on-pay" vote. We last submitted a say-on-pay proposal to our shareholders at our 2021 Annual Meeting of Stockholders held on January 15, 2021. At that meeting, 98% of the votes cast by our stockholders were in favor of our say-on-pay vote.

The Board of Directors recommends a vote "**FOR**" the approval of our say-on-pay proposal.

RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Although stockholder ratification is not required, the appointment of Baker Tilly US, LLP as NTIC's independent registered public accounting firm for fiscal 2022 is being submitted for ratification at the 2021 Annual Meeting of Stockholders as a matter of good corporate governance.

The Board of Directors recommends a vote "**FOR**" the ratification of Baker Tilly US, LLP as NTIC's independent registered public accounting firm.

2023 ANNUAL MEETING OF STOCKHOLDERS

We anticipate that our 2023 Annual Meeting of Stockholders will be held on or about Friday, January 13, 2023.

The following are important dates in connection with our 2023 Annual Meeting of Stockholders.

Stockholder Action	Submission Deadline
Proposal Pursuant to Rule 14a-8 of the Securities Exchange Act of 1934, as amended	No later than August 8, 2022
Nomination of a Candidate Pursuant to our Bylaws	Between September 23, 2022 and October 23, 2022
Proposal of Other Business for Consideration Pursuant to our Bylaws	Between September 23, 2022 and October 23, 2022

OUR COMMITMENT TO ENVIRONMENTAL, SOCIAL AND GOVERNANCE PRINCIPLES

ESG COMMITMENTS

Environmental: We are committed to operating in an environmentally responsible manner, as set forth in our Policy Statement on Health, Safety and Environment, in order to reduce our impact on climate change, conserve natural resources and operate in compliance with environmental regulations.

Social: We are committed to being a socially responsible employer by prioritizing health and safety, as set forth in our Policy Statement on Health, Safety and Environment, and fostering an environment of diversity and inclusion across our business, as set forth in our Human Rights Policy.

Governance: We are committed to building a culture dedicated to ethical business behavior and responsible corporate activity, as set forth in our Code of Ethics. We believe strong corporate governance is the foundation to delivering on our commitments.

HEALTH, SAFETY AND ENVIRONMENT

Health, safety and environment are the cornerstone of NTIC. We are in the business of converting unique, environmentally beneficial materials science into value added products and services for industrial and consumer applications. We believe that we are responsible to our worldwide customers, our people, our communities and our stockholders, and we take these responsibilities seriously. We are dedicated to investing in the future of the planet and our people and we intend to continue to invest in health, safety and environmental protection and improvements in a timely manner consistent with available technology.

We are guided by our Policy Statement on Health, Safety and Environment, which describes our health, safety and environmental objectives, including ensuring that all activities across the value chain are conducted in a manner consistent with our quality management standard and health, safety and environmental programs, ensuring that business activities are conducted to prevent harm and protect health and safety, and developing, manufacturing, distributing and marketing products and services with full regard for health, safety and environmental aspects. To accomplish these objectives, we intend to establish targets within our quality management standard and health, safety and environmental programs to measure progress and ensure continuous improvement, provide safe and healthy workplaces for our employees and contractors, and provide continued training to enable employees to meet their responsibility to contribute to compliance with our health, safety and environmental objectives.

DIVERSITY AND INCLUSION; CODE OF ETHICS

Diversity and inclusion are embedded in our values and integrated into our strategies. Our Human Rights Policy was designed to align with the United Nations Global Compact and core elements of the United Nations Universal Declaration of Human Rights. We are committed to providing an environment free of discrimination and harassment, where all individuals are treated with respect and dignity, can contribute fully, and have equal opportunities. We have worked to build a diverse and inclusive workforce and are committed to equal opportunity. We invest in building diverse talent pools and provide training to improve skills where appropriate. We uphold and support the right to equal treatment without discrimination or harassment.

The Board of Directors has adopted a Code of Ethics, which applies to all of our directors, executive officers, including our Chief Executive Officer and Chief Financial Officer, and employees.

4201 Woodland Road, Circle Pines, Minnesota 55014

PROXY STATEMENT FOR ANNUAL MEETING OF STOCKHOLDERS January 21, 2022

The Board of Directors of Northern Technologies International Corporation is soliciting your proxy for use at the 2022 Annual Meeting of Stockholders to be held on Friday, January 21, 2022. The Board of Directors expects to make available to our stockholders beginning on or about December 6, 2021 the Notice of Annual Meeting of Stockholders, this proxy statement and a form of proxy on the Internet or will mail these materials to stockholders of NTIC upon their request.

GENERAL INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

Date, Time, Place and Purposes of Meeting

The Annual Meeting of Stockholders of Northern Technologies International Corporation (sometimes referred to as "NTIC," "we," "our" or "us" in this proxy statement) will be held on Friday, January 21, 2022, at 12:00 p.m., Central Standard Time, at the principal executive offices of Northern Technologies International Corporation located at 4201 Woodland Road, Circle Pines, Minnesota 55014, for the purposes set forth in the Notice of Annual Meeting of Stockholders.

Due to the evolving COVID-19 pandemic, we may impose additional procedures or limitations on Annual Meeting attendees or may decide to hold the Annual Meeting at a different venue or solely by means of virtual communication. If we take this step, we will publicly announce the decision to do so in advance, and details on how to participate will be posted on our website at *ir.ntic.com/investor-relations* and filed with the Securities and Exchange Commission as additional proxy materials.

Who Can Vote

Stockholders of record at the close of business on November 23, 2021 will be entitled to notice of and to vote at the meeting or any adjournment of the meeting. As of that date, there were 9,203,446 shares of our common stock outstanding. Each share of our common stock is entitled to one vote on each matter to be voted on at the Annual Meeting. Stockholders are not entitled to cumulate voting rights.

How You Can Vote

Your vote is important. Whether you hold shares directly as a stockholder of record or beneficially in "street name" (through a broker, bank or other nominee), you may vote your shares without attending the Annual Meeting. You may vote by granting a proxy or, for shares held in street name, by submitting voting instructions to your broker, bank or other nominee.

If you are a registered stockholder whose shares are registered in your name, you may vote your shares in person at the meeting or by one of the three following methods:

- **Vote by Internet**, by going to the website address *www.proxyvote.com* and following the instructions for Internet voting shown on the Notice of Internet Availability of Proxy Materials or on your proxy card.

- **Vote by Telephone**, by dialing 1-800-690-6903 and following the instructions for telephone voting shown on the Notice of Internet Availability of Proxy Materials or on your proxy card.

- **Vote by Proxy Card**, by completing, signing, dating and mailing the enclosed proxy card in the envelope provided if you received a paper copy of these proxy materials.

If you vote by Internet or telephone, please do not mail your proxy card.

If your shares are held in "street name" (through a broker, bank or other nominee), you may receive a separate voting instruction form with this proxy statement or you may need to contact your broker, bank or other nominee to determine whether you will be able to vote electronically using the Internet or telephone.

The deadline for voting by telephone or by using the Internet is 11:59 p.m., Eastern Standard Time (10:59 p.m., Central Standard Time), on the day before the date of the Annual Meeting or any adjournments thereof. Please see the Notice of Internet Availability of Proxy Materials, your proxy card or the information your bank, broker, or other holder of record provided to you for more information on your options for voting.

If you return your signed proxy card or use Internet or telephone voting before the Annual Meeting, the named proxies will vote your shares as you direct. You have three choices on each matter to be voted on.

For Proposal One—Election of Directors, you may:

- Vote **FOR** all seven nominees for director,

- **WITHHOLD** your vote from all seven nominees for director or

- **WITHHOLD** your vote from one or more of the seven nominees for director.

For each of the other proposals, you may:

- Vote **FOR** the proposal,

- Vote **AGAINST** the proposal or

- **ABSTAIN** from voting on the proposal.

If you send in your proxy card or use Internet or telephone voting, but do not specify how you want to vote your shares, the proxies will vote your shares **FOR** all seven of the nominees for election to the Board of Directors in Proposal One—Election of Directors and **FOR** each of the other proposals.

How Does the Board Recommend that You Vote

The Board of Directors unanimously recommends that you vote:

- **FOR** all seven of the nominees for election to the Board of Directors in Proposal One—Election of Directors;

- **FOR** Proposal Two—Advisory Vote on Executive Compensation; and

- **FOR** Proposal Three—Ratification of Selection of Independent Registered Public Accounting Firm.

How You May Change Your Vote or Revoke Your Proxy

If you are a stockholder whose shares are registered in your name, you may revoke your proxy at any time before it is voted by one of the following methods:

- Submitting another proper proxy with a more recent date than that of the proxy first given by following the Internet or telephone voting instructions or completing, signing, dating and returning a proxy card to us;

- Sending written notice of your revocation to our Corporate Secretary; or

- Attending the Annual Meeting and voting by ballot.

Quorum Requirement

The presence at the Annual Meeting, in person or by proxy, of the holders of a majority (4,601,724 shares) of the outstanding shares of our common stock as of the record date will constitute a quorum for the transaction of business at the Annual Meeting. In general, shares of our common stock represented by proxies marked "For," "Against," "Abstain" or "Withheld" are counted in determining whether a quorum is present. In addition, a "broker non-vote" is counted in determining whether a quorum is present. A "broker non-vote" is a proxy returned by a broker on behalf of its beneficial owner customer that is not voted on a particular matter because voting instructions have not been received by the broker from the customer, and the broker has no discretionary authority to vote on behalf of such customer on such matter.

Vote Required

Proposal One—Election of Directors will be decided by the affirmative vote of a plurality of shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting. A "plurality" for Proposal One means the individuals who receive the greatest number of votes cast "For" are elected as directors. However, under our Corporate Governance Guidelines, in an uncontested election of directors, any nominee for director who receives a greater number of votes "withheld" from his or her election than votes "for" his or her election by stockholders present in person or by proxy at the Annual Meeting and entitled to vote in the election of directors is required to tender a written offer to resign from the Board of Directors within five business days of the certification of the stockholder vote by the Inspector of Elections.

Proposal Two—Advisory Vote on Executive Compensation will be decided by the affirmative vote of a majority of shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting. Although this is a non-binding, advisory vote, the Compensation Committee and Board of Directors expect to take into account the outcome of the vote when considering future executive compensation decisions.

Proposal Three—Ratification of Selection of Independent Registered Public Accounting Firm will be decided by the affirmative vote of a majority of shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting.

If your shares are held in "street name" and you do not indicate how you wish to vote, your broker is permitted to exercise its discretion to vote your shares only on certain "routine" matters. Proposal One—Election of Directors and Proposal Two—Advisory Vote on Executive Compensation are not "routine" matters. Accordingly, if you do not direct your broker how to vote, your broker may not exercise discretion and may not vote your shares on any of these two proposals. This is called a "broker non-vote," and although your shares will be considered to be represented by proxy at the meeting, they will not be considered to be shares "entitled to vote" or "votes cast" at the meeting and will not be counted as having been voted on the applicable proposal. Proposal Three—Ratification of Selection of Independent Registered Public Accounting Firm is a "routine" matter, and, as such, your broker is permitted to exercise its discretion to vote your shares for or against the proposals in the absence of your instruction.

Proposal	**Votes Required**	**Effect of Votes Withheld / Abstentions**	**Effect of Broker Non-Votes**
Proposal One: Election of Directors	Plurality of the votes cast. This means that the seven nominees receiving the highest number of affirmative "FOR" votes will be elected as directors.[(1)]	Votes withheld will have no effect, unless there are more votes withheld than "FOR" votes.[(1)]	Broker non-votes will have no effect.
Proposal Two: Advisory Vote on Executive Compensation	Affirmative vote of a majority of shares of common stock present in person or by proxy and entitled to vote thereon.	Abstentions will have the effect of a vote against the proposal.	Broker non-votes will have no effect.
Proposal Three: Ratification of Appointment of Independent Registered Public Accounting Firm	Affirmative vote of a majority of shares of common stock present in person or by proxy and entitled to vote thereon.	Abstentions will have the effect of a vote against the proposal.	We do not expect any broker non-votes on this proposal.

(1) Under our Corporate Governance Guidelines, in an uncontested election of directors, any nominee for director who receives a greater number of votes "withheld" from his or her election than votes "for" his or her election by stockholders present in person or by proxy at the Annual Meeting and entitled to vote in the election of directors is required to tender a written offer to resign from the Board of Directors within five business days of the certification of the stockholder vote by the Inspector of Elections.

Other Business

Our management does not intend to present other items of business and knows of no items of business that are likely to be brought before the Annual Meeting, except those described in this proxy statement. However, if any other matters should properly come before the Annual Meeting, the persons named on the proxy card will have discretionary authority to vote such proxy in accordance with their best judgment on the matters.

Procedures at the Annual Meeting

The presiding officer at the Annual Meeting will determine how business at the meeting will be conducted. Only matters brought before the Annual Meeting in accordance with our Bylaws will be considered. Only a natural person present at the Annual Meeting who is either one of our stockholders, or is acting on behalf of one of our stockholders, may make a motion or second a motion. A person acting on behalf of a stockholder must present a written statement executed by the stockholder or the duly-authorized representative of the stockholder on whose behalf the person purports to act.

Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements, annual reports and the Notice of Internet Availability of Proxy Materials. This means that only one copy of this proxy statement, our Annual Report to Stockholders or the Notice of Internet Availability of Proxy Materials may have been sent to multiple stockholders in each household, unless contrary instructions have been given. We will promptly deliver a separate copy of any of these documents to any stockholder upon written or oral request to our Stockholder Information Department, Northern Technologies International Corporation, 4201 Woodland Road, Circle Pines, Minnesota 55014, telephone: (763) 225-6637. Any stockholder who wants to receive separate copies of this proxy statement, our Annual Report to Stockholders or the Notice of Internet Availability of Proxy Materials in the future, or any stockholder who is receiving multiple copies and would like to receive only one copy per household, should contact the stockholder's bank, broker or other nominee record holder, or the stockholder may contact us at the above address and telephone number.

Proxy Solicitation Costs

The cost of soliciting proxies, including the preparation, assembly, electronic availability and mailing of proxies and soliciting material, as well as the cost of making available or forwarding this material to the beneficial owners of our common stock, will be borne by NTIC. Our directors, officers and regular employees may, without compensation other than their regular compensation, solicit proxies by telephone, e-mail, facsimile or personal conversation. We may reimburse brokerage firms and others for expenses in making available or forwarding solicitation materials to the beneficial owners of our common stock.

PROPOSAL ONE—ELECTION OF DIRECTORS

Number of Directors

Our Bylaws provide that the Board of Directors will consist of at least one member or such other number as may be determined by the Board of Directors from time to time or by the stockholders at an annual meeting. The Board of Directors has fixed the number of directors at seven.

Nominees for Director

The Board of Directors has nominated the following seven individuals to serve as our directors until the next annual meeting of stockholders or until their successors are elected and qualified. All of the nominees named below are current members of the Board of Directors.

- Nancy E. Calderon
- Sarah E. Kemp
- Sunggyu Lee, Ph.D.
- G. Patrick Lynch
- Ramani Narayan, Ph.D.
- Richard J. Nigon
- Konstantin von Falkenhausen

Proxies can only be voted for the number of persons named as nominees in this proxy statement, which is seven.

If prior to the Annual Meeting, the Board of Directors should learn that any nominee will be unable to serve for any reason, the proxies that otherwise would have been voted for this nominee will be voted for a substitute nominee as selected by the Board. Alternatively, the proxies, at the Board's discretion, may be voted for that fewer number of nominees as results from the inability of any nominee to serve. The Board of Directors has no reason to believe that any of the nominees will be unable to serve.

Information about Current Directors and Board Nominees

The following table sets forth as of November 23, 2021 the name, age and principal occupation of each current director and each individual who has been nominated by the Board of Directors to serve as a director of NTIC, as well as how long each individual has served as a director of NTIC.

Name	Age	Principal Occupation	Director Since
Nancy E. Calderon(1)	62	Former Partner of KPMG LLP	2019
Sarah E. Kemp(2)	55	Associate Vice President of Merck	2019
Sunggyu Lee, Ph.D.(3)	69	Chief Technologist of Chemtech Innovators LLC	2004
G. Patrick Lynch	54	President and Chief Executive Officer of NTIC	2004
Ramani Narayan, Ph.D.	72	Distinguished Professor in Department of Chemical Engineering & Materials Science at Michigan State University	2004
Richard J. Nigon(1)(2)(3)	73	Senior Vice President of Cedar Point Capital, Inc.	2010
Konstantin von Falkenhausen(1)(3)	54	Partner of B Capital Partners AG	2012

(1) Member of the Audit Committee
(2) Member of the Nominating and Corporate Governance Committee
(3) Member of the Compensation Committee

Additional Information about Current Directors and Board Nominees

The following paragraphs provide information about each current director and nominee for director, including all positions he or she holds, his or her principal occupation and business experience for the past five years, and the names of other publicly-held companies of which the director or nominee currently serves as a director or has served as a director during the past five years. We believe that all of our directors and nominees display personal and professional integrity; satisfactory levels of education and/or business experience; broad-based business acumen; an appropriate level of understanding of our business and its industry and other industries relevant to our business; the ability and willingness to devote adequate time to the work of the Board of Directors and its committees; a fit of skills and personality with those of our other directors that helps build a board that is effective, collegial and responsive to the needs of NTIC; strategic thinking and a willingness to share ideas; a diversity of experiences, expertise and background; and the ability to represent the interests of all of our stockholders. The information presented below regarding each director and nominee also sets forth specific experience, qualifications, attributes and skills that led the Board of Directors to the conclusion that such individual should serve as a director in light of our business and structure.

Nancy E. Calderon has been a director of NTIC since October 2019. Ms. Calderon is a CPA and retired from KPMG LLP in September 2019 after a distinguished 33-year career. Until her retirement, Nancy served as Global Lead Partner for a Fortune 40 Technology company, managing a global team of over 500 professionals in more than 50 countries, a position she held since July 2012, senior partner of KPMG's Board Leadership Center from its inception in 2015, and as a director of KPMG's Global Delivery Center in India and its related holding companies since September 2011. Previously, she was KPMG's Americas Chief Administrative Officer and U.S. National Partner in Charge, Operations from July 2008 to June 2012. Ms. Calderon has sat on a number of KPMG committees, including the Americas Region Management Committee, Enterprise Risk Management, Privacy, Pension Steering and Investment, Social Media and Knowledge Management. She currently serves on the boards of directors of Arcimoto, Inc. and Belden Inc. We believe Ms. Calderon's qualifications to sit on the Board of Directors include her extensive financial accounting experience with KPMG and her current and prior experience on boards of directors, including, in particular, her experience serving on the audit committees of Arcimoto, Inc.; Belden, Inc.; KPMG's Global Delivery Center; Women Corporate Directors Foundation and the New York YMCA. Ms. Calderon received a Bachelor of Science from UC Berkeley's Haas Business School and a Master of Science from Golden Gate University.

Sarah E. Kemp has been a director of NTIC since October 2019. Ms. Kemp is Associate Vice President for Organon, a global biopharmaceutical company where she leads Global Women's Health Policy and ESG. Prior to Organon, Ms. Kemp lead Merck's Policy Communication and Population Health organization responsible for emerging markets. Prior to this role, she was the Executive Director, Public Policy and Commercial Strategies for China and the Asia Pacific. Before joining Merck, Ms. Kemp was the Deputy Under Secretary, for the International Trade Administration at the U.S. Department of Commerce in Washington, D.C. In this role, she oversaw a $485 million annual budget and 2,100 trade and investment professionals based in 108 US cites and 76 markets around the world. Prior to her time in D.C., she was the Minister Counselor for Commercial Affairs at the U.S. Embassy in Beijing, overseeing the U.S. Department of Commerce's trade promotion and trade policy activities in its operations in Beijing, Chengdu, Shanghai, Wuhan, Shenyang and Guangzhou. In this capacity, she was a key advisor to the Ambassador and advised U.S. CEOs—from fortune 500 companies to SME's—on China business strategy, market access, export promotion, anti-dumping / countervailing duty cases, intellectual property protection and export controls. As a career Foreign Commercial Service Officer, she served as the Country Manager in China and Vietnam, and had multiple postings in Beijing, Hong Kong and Bangkok. Ms. Kemp joined Commerce as a Presidential Management Fellow. Ms. Kemp served on the board of directors of the Concordia International School in Hanoi, Vietnam, an international day school offering preschool through high school education, from 2012-2014 and was the Co-Chair of Women Corporate Directors in Vietnam from 2011-2014 and in Beijing from 2009-2011. Ms. Kemp is currently a member of the World Economic Forum's Global Future Council on China. We believe Ms. Kemp's qualifications to sit on the Board of Directors include her extensive knowledge and experience in international commerce, particularly with regard to Asia Pacific and Greater China, her prior board experience and her in depth experience in international and public affairs. Ms. Kemp received her Master of Business Administration from the Chinese University of Hong Kong, her Master of Public Administration from Columbia University and her Bachelor of Arts in Physiological–Anthropology from Hamilton College.

Sunggyu Lee, Ph.D. has been a director of NTIC since January 2004. Dr. Lee is Chief Technologist, Chemtech Innovators LLC, Akron, Ohio. Previously, he held positions of Russ Ohio Research Scholar and Professor of Chemical and Biomolecular Engineering, Ohio University, Athens, Ohio from 2010 to 2020, Professor of Chemical and Biological Engineering, Missouri University of Science and Technology, Rolla, Missouri from 2005 to 2010, C.W. LaPierre Professor and Chairman of Chemical Engineering at University of Missouri-Columbia from 1997 to 2005, and Robert Iredell Professor and Head of Chemical Engineering Department at the University of Akron, Akron, Ohio from 1988 to 1996. He has authored 12 books and over 550 archival publications and received 35 U.S. patents in a variety of chemical and polymer processes and products. He is currently serving as Editor of Encyclopedia of Chemical Processing, Taylor & Francis, New York, New York and also as Book Series Editor of Green Chemistry and Chemical Engineering, CRC Press, Boca Raton, Florida. Throughout his career, he has served as consultant and technical advisor to a number of national and international companies in the fields of polymers, petrochemicals and energy. He received his Ph.D. from Case Western Reserve University, Cleveland, Ohio in 1980. We believe Dr. Lee's qualifications to sit on the Board of Directors include his significant technical and industrial expertise with chemical and polymer processes and products. Such expertise is particularly helpful with respect to assessing and operating NTIC's Natur-Tec® bioplastics business.

G. Patrick Lynch, an employee of NTIC since 1995, has been President since July 2005 and Chief Executive Officer since January 2006 and was appointed a director of NTIC in February 2004. Mr. Lynch served as President of North American Operations of NTIC from May 2004 to July 2005. Prior to May 2004, Mr. Lynch held various positions with NTIC, including Vice President of Strategic Planning, Corporate Secretary and Project Manager. Mr. Lynch is also an officer and director of Inter Alia Holding Company, which is a significant stockholder of NTIC. Prior to joining NTIC, Mr. Lynch held positions in sales management for Fuji Electric Co., Ltd. in Tokyo, Japan, and programming project management for BMW AG in Munich, Germany. Mr. Lynch received a Master of Business Administration degree from the University of Michigan Ross School of Business. We believe Mr. Lynch's qualifications to sit on the Board of Directors include his depth of knowledge of NTIC and its day-to-day operations in light of his position as Chief Executive Officer of NTIC, as well as his affiliation with a significant stockholder of NTIC, which the Board of Directors believes generally helps align management's interests with those of our stockholders.

Ramani Narayan, Ph.D. has been a director of NTIC since November 2004. He is a Distinguished Professor at Michigan State University in the Department of Chemical Engineering & Materials Science, where he has 200+ refereed publications in leading journals to his credit, 19 patents, edited three books and one expert dossier in the area of bio-based polymeric materials. His research encompasses design and engineering of sustainable, biobased products, biodegradable plastics and polymers, biofiber reinforced composites, reactive extrusion polymerization and processing, studies in plastic end-of-life options like biodegradation and composting. He conducts carbon footprint calculations for plastics and products. He also performs LCA (Life Cycle Assessment) for reporting a product's environmental footprint. He serves as Scientific Chair of the Biodegradable Products Institute (BPI), North America. He served on the Technical Advisory Board of Tate & Lyle. He served on the Board of Directors of

ASTM International, an international standard setting organization and was the founding Chair of the committee on Environmentally Degradable Plastics and Biobased Products (D20.96) and the Plastics Terminology Committee (D20.92). Dr. Narayan is also the technical expert for the United States on ISO (International Standards Organization) TC 61 on Plastics—specifically for Terminology, Biobased and Biodegradable Plastics. He has won numerous awards, including the Named MSU University Distinguished Professor in 2007; the Governors University Award for commercialization excellence; Michigan State University Distinguished Faculty Award, 2006, 2005 Withrow Distinguished Scholar award, Fulbright Distinguished Lectureship Chair in Science & Technology Management & Commercialization (University of Lisbon; Portugal); First recipient of the William N. Findley Award, The James Hammer Memorial Lifetime Achievement Award, and Research and Commercialization Award sponsored by ICI Americas, Inc. & the National Corn Growers Association. We believe Dr. Narayan's qualifications to sit on the Board of Directors include his significant technical expertise in the bioplastics area which has been helpful to NTIC's management in assessing and operating NTIC's Natur-Tec® bioplastics business.

Richard J. Nigon has been a director of NTIC since February 2010 and non-executive Chairman of the Board since November 2012. Mr. Nigon is the Senior Vice President of Cedar Point Capital, Inc., a private company that raises capital for early stage companies. From February 2001 until May 2007, Mr. Nigon was a Director of Equity Corporate Finance for Miller Johnson Steichen Kinnard (MJSK), a privately held investment firm. In December 2006, MJSK was acquired by Stifel Nicolaus, and Mr. Nigon was a Managing Director of Private Placements at Stifel Nicolaus. From February 2000 to February 2001, Mr. Nigon served as the Chief Financial Officer of Dantis, Inc., a web hosting company. Prior to joining Dantis, Mr. Nigon was employed by Ernst & Young, LLP from 1970 to 2000, where he served as a partner from 1981 to 2000. While at Ernst & Young, Mr. Nigon served as the Director of Ernst & Young's Twin Cities Entrepreneurial Services Group and was the coordinating partner on several publicly-traded companies in the consumer retailing and manufacturing sectors. In addition to NTIC, Mr. Nigon also serves on the board of directors of Tactile Systems Technology, Inc. and as chairperson of its audit committee, on the board of directors of Celcuity Inc. and as chairperson of its audit committee and serves on the board of directors of a number of privately-held companies. Mr. Nigon previously served on the board of directors of Virtual Radiologic Corporation and Vascular Solutions, Inc. until its acquisition by Teleflex Incorporated in February 2017. Through his 30 years of service at Ernst & Young, LLP, Mr. Nigon brings to NTIC's Board of Directors, and in particular the Audit Committee, extensive public accounting and auditing experience. The Board believes Mr. Nigon's strong background in financial controls and reporting, financial management, financial analysis and SEC reporting requirements is critical to the Board's oversight responsibilities. In addition, his strategic planning expertise and other experiences gained through his management and leadership roles at private investment firms that have invested in early stage companies, is helpful to the Board in assessing and operating NTIC's newer businesses.

Konstantin von Falkenhausen has been a director of NTIC since November 2012. Mr. von Falkenhausen is currently a Partner of B Capital Partners AG, an independent investment advisory boutique focused on infrastructure, public private partnerships and clean energy. In this capacity, since April 2018, Mr. von Falkenhausen has been a Director of the general partner of the B Capital Energy Transition Infrastructure Fund SICAV-SIF, an investment fund registered with the Luxembourg financial authorities CSSF. From February 2004 to March 2008, Mr. von Falkenhausen served as a Partner of capiton AG, a private equity firm. From March 2003 to February 2004, he served as interim Chief Financial Officer of Neon Products GmbH, a privately held neon lighting company. From May 1999 to February 2003, Mr. von Falkenhausen served as an investment manager of West Private Equity Ltd. and an investment director of its German affiliate West Private Capital GmbH. Prior to May 1999, Mr. von Falkenhausen served in several positions with BankBoston Robertson Stephens International Ltd., an investment banking firm. Mr. von Falkenhausen is a citizen of Germany. He has a Master's degree in economics (lic. oec) from the

University of Fribourg (Switzerland) and a Masters of Business Administration from the University of Chicago. We believe Mr. von Falkenhausen's qualifications to sit on the Board of Directors include his experience with several private investment and equity firms that have invested in early stage companies, which the Board believes is helpful in assessing and operating NTIC's newer businesses, and his financial expertise, which the Board believes is helpful in analyzing NTIC's financial performance.

Board Recommendation

The Board of Directors unanimously recommends a vote **FOR** the election of all of the seven nominees named above.

PROPOSAL TWO—ADVISORY VOTE ON EXECUTIVE COMPENSATION

Introduction

The Board of Directors is providing stockholders with an advisory vote on executive compensation pursuant to the Dodd-Frank Wall Street Consumer Protection Act and Section 14A of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). This advisory vote, commonly known as a "say-on-pay" vote, is a non-binding vote on the compensation paid to our named executive officers as set forth in the "*Executive Compensation*" section of this proxy statement beginning on page 41. At the 2021 Annual Meeting of Stockholders held on January 15, 2021, 98% of the votes cast by our stockholders were in favor of our say-on-pay vote. The Compensation Committee generally believes that such results affirmed stockholder support of our approach to executive compensation.

Our executive compensation program is generally designed to attract, retain, motivate and reward highly qualified and talented executive officers. The underlying core principles of our executive compensation program are:

- To align the interests of our executives with those of our stockholders;
- Integrate compensation with our business plans and strategic goals;
- Link amount of compensation to both company and individual performance goals; and
- Provide fair and competitive compensation opportunities that attract and retain executives.

The "*Executive Compensation*" section of this proxy statement, which begins on page 41, describes our executive compensation program and the executive compensation decisions made by the Compensation Committee and Board of Directors for fiscal 2021 in more detail. Important considerations include:

- A significant portion of the compensation paid or awarded to our named executive officers in fiscal 2021 was "performance-based" or "at-risk" compensation that is tied directly to the achievement of financial and other performance goals or long-term stock price performance.
- Equity-based compensation granted to our named executive officers is in the form of stock options and aligns the long-term interests of our executives with the long-term interests of our stockholders. In response to a concern raised by one of our stockholders, stock options granted to our executives now vest annually over a three-year period as opposed to a one-year period.
- Our executive officers receive only modest perquisites and have modest severance and change-in-control arrangements.
- We have adopted a clawback policy.
- We do not provide any tax "gross-up" payments.

Accordingly, the Board of Directors recommends that our stockholders vote in favor of the say-on-pay vote as set forth in the following resolution:

RESOLVED, that our stockholders approve, on an advisory basis, the compensation paid to our named executive officers, as disclosed in this proxy statement.

Stockholders are not ultimately voting to approve or disapprove the recommendation of the Board of Directors. As this is an advisory vote, the outcome of the vote is not binding on us with respect to future executive compensation decisions, including those relating to our named executive officers, or otherwise. The Compensation Committee and Board of Directors expect to take into account the outcome of this advisory vote when considering future executive compensation decisions.

In accordance with the result of the advisory vote on the frequency of the say-on-pay vote, which was conducted at our 2020 Annual Meeting of Stockholders, the Board of Directors has determined that we will conduct an executive compensation advisory vote on an annual basis. Accordingly, after this Annual Meeting, the next say-on-pay vote will occur at our next Annual Meeting of Stockholders anticipated to be held in January 2023. We anticipate that the next say-on-frequency vote will occur at our 2026 Annual Meeting of Stockholders.

Board Recommendation

The Board of Directors unanimously recommends a vote **FOR** approval, on an advisory basis, of the compensation paid to our named executive officers, as disclosed in this proxy statement.

PROPOSAL THREE—RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Selection of Independent Registered Public Accounting Firm

The Audit Committee of the Board of Directors selects our independent registered public accounting firm. In this regard, the Audit Committee evaluates the qualifications, performance and independence of our independent registered public accounting firm and determines whether to re-engage our current independent registered public accounting firm. As part of its evaluation, the Audit Committee considers, among other factors, the quality and efficiency of the services provided by the firm, including the performance, technical expertise, and industry knowledge of the lead audit partner and the audit team assigned to our account; the overall strength and reputation of the firm; its global capabilities relative to our business; and its knowledge of our operations. Additionally, the Audit Committee considers the impact of a change of independent registered public accounting firm. Upon consideration of these and other factors, the Audit Committee believes the selection of Baker Tilly US, LLP ("Baker Tilly") as our independent registered public accounting firm for the fiscal year ending August 31, 2022 is in the best interests of NTIC and its stockholders. Baker Tilly has served as our independent registered public accounting firm since 2004.

Although it is not required to do so, the Board of Directors is asking our stockholders to ratify the Audit Committee's selection of Baker Tilly as a matter of good corporate governance. If our stockholders do not ratify the selection of Baker Tilly, another independent registered public accounting firm will be considered by the Audit Committee. Even if the selection is ratified by our stockholders, the Audit Committee in its discretion may change the appointment at any time during the year, if it determines that such a change would be in the best interests of NTIC and our stockholders.

Representatives of Baker Tilly will be present at the Annual Meeting to respond to appropriate questions. They also will have the opportunity to make a statement if they wish to do so.

Audit, Audit-Related, Tax and Other Fees

The following table presents the aggregate fees billed to us by Baker Tilly for the fiscal years ended August 31, 2021 and August 31, 2020.

	Aggregate Amount Billed by Baker Tilly ($)	
	Fiscal 2021	**Fiscal 2020**
Audit Fees[(1)]	$ 415,288	$ 386,570
Audit-Related Fees[(2)]	6,000	—
Tax Fees	—	—
All Other Fees	—	—

(1) These fees consisted of the audit of our annual financial statements by year, review of financial statements included in our quarterly reports on Form 10-Q and other services normally provided in connection with statutory and regulatory filings or engagements.

(2) Audit-related fees represent fees for services relating to registration statement filings.

Audit Committee Pre-Approval Policies and Procedures

All services rendered by Baker Tilly to NTIC were permissible under applicable laws and regulations and all services provided to NTIC, other than de minimis non-audit services allowed under applicable law, were approved in advance by the Audit Committee. The Audit Committee has not adopted any formal pre-approval policies and procedures.

Board Recommendation

The Board of Directors unanimously recommends that stockholders vote **FOR** ratification of the selection of Baker Tilly as our independent registered public accounting firm for the fiscal year ending August 31, 2022.

STOCK OWNERSHIP

Beneficial Ownership of Significant Stockholders and Management

The following table sets forth information known to us with respect to the beneficial ownership of our common stock as of November 23, 2021, the record date for the Annual Meeting, for:

- each person known by us to beneficially own more than five percent of the outstanding shares of our common stock;
- each of our directors;
- each of the executive officers named in the Summary Compensation Table included later in this proxy statement under "*Executive Compensation*"; and
- all of our current directors and executive officers as a group.

The number of shares beneficially owned by a person includes shares subject to options held by that person that are currently exercisable or that become exercisable within 60 days of November 23, 2021. Percentage calculations assume, for each person and group, that all shares that may be acquired by such person or group pursuant to options currently exercisable or that become exercisable within 60 days of November 23, 2021 are outstanding for the purpose of computing the percentage of common stock owned by such person or group. However, such unissued shares of common stock described above are not deemed to be outstanding for calculating the percentage of common stock owned by any other person.

Except as otherwise indicated, the persons in the table below have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws where applicable and subject to the information contained in the notes to the table.

Title of Class	Name and Address of Beneficial Owner[1]	Amount and Nature of Beneficial Ownership[2]	Percent of Class
Directors and Officers:			
Common Stock	Nancy E. Calderon	26,416	*
Common Stock	Sarah E. Kemp	24,392	*
Common Stock	Sunggyu Lee, Ph.D.	8,000	*
Common Stock	G. Patrick Lynch[3]	1,489,871	15.8%
Common Stock	Ramani Narayan, Ph.D.	112,309	1.2%
Common Stock	Richard J. Nigon	130,572	1.4%
Common Stock	Konstantin von Falkenhausen	80,509	*
Common Stock	Matthew C. Wolsfeld	291,551	3.1%
Common Stock	All current directors and executive officers as a group (8 persons)[4]	2,163,620	22.0%
Significant Beneficial Owners:			
Common Stock	Inter Alia Holding Company[5] 23205 Mercantile Road Beachwood, Ohio 44122	1,203,334	13.1%

* Represents beneficial ownership of less than one percent.

(1) The business address for each of the directors and officers of NTIC is c/o Northern Technologies International Corporation, 4201 Woodland Road, Circle Pines, Minnesota 55014.

(2) Includes for the persons listed below the following shares of common stock subject to options held by such persons that are currently exercisable or become exercisable within 60 days of November 23, 2021:

Name	Shares of Common Stock Underlying Stock Options
Directors	
Nancy E. Calderon	24,392
Sarah E. Kemp	24,392
Sunggyu Lee, Ph.D.	8,000
G. Patrick Lynch	212,433
Ramani Narayan, Ph.D.	57,309
Richard J. Nigon	99,972
Konstantin von Falkenhausen	79,309
Named Executive Officers	
G. Patrick Lynch	212,433
Matthew C. Wolsfeld	157,016
All current directors and executive officers as a group (8 persons)	678,823

(3) Includes 1,203,334 shares held by Inter Alia Holding Company. See note (5) below.

(4) The amount beneficially owned by all current directors and executive officers as a group includes 1,203,334 shares held of record by Inter Alia Holding Company. See notes (3) above and (5) below.

(5) According to a Schedule 13D/A filed with the SEC on October 22, 2019, Inter Alia Holding Company is an entity of which G. Patrick Lynch, our President and Chief Executive Officer, is a 47% stockholder. G. Patrick Lynch shares equal voting and dispositive power over such shares with two other members of his family. Inter Alia Holding Company's address is 23205 Mercantile Road, Beachwood, Ohio 44122.

Stock Ownership Guidelines

In November 2021, we adopted stock ownership guidelines that are intended to further align the interests of our executive officers and directors with those of our stockholders. The stock ownership guidelines for our executive officers and directors are as follows:

Position	Guideline
Non-Employee Director	3x annual cash retainer
Chief Executive Officer	6x annual base salary
Other Executive Officers	3x annual base salary

Each executive officer and director has five years from the institution of these guidelines and, thereafter, from the date of appointment or hire or, if the ownership multiple has increased during his tenure, five years from the date established in connection with such increase to reach his or her ownership targets.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table summarizes outstanding options and other awards under NTIC's equity compensation plans as of August 31, 2021. NTIC's equity compensation plans as of August 31, 2021 were the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan, the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan, and the Northern Technologies International Corporation Employee Stock Purchase Plan. Except for automatic annual grants of $50,000 in options to purchase shares of NTIC common stock to NTIC's directors in consideration for their services as directors of NTIC and an automatic annual grant of $10,000 in options to purchase shares of NTIC common stock to NTIC's Chairman of the Board in consideration for his services as Chairman, in each case on the first day of each fiscal year, and automatic initial pro rata grants of $50,000 in options to purchase shares of NTIC common stock to NTIC's new directors in consideration for their services as directors of NTIC on the first date of their appointment as directors, options and other awards granted in the future under the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan are within the discretion of the Board of Directors and the Compensation Committee of the Board of Directors and, therefore, cannot be ascertained at this time. No future grants of options or other stock awards will be made under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan.

Plan Category	**(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights**	**(b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights**	**(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))**
Equity compensation plans approved by security holders	1,426,651 (1)(2)	$9.30	954,178(3)
Equity compensation plans not approved by security holders	—	—	—
Total	1,426,651 (1)(2)	$9.30	954,178(3)

(1) Amount includes 706,007 shares of NTIC common stock issuable upon the exercise of stock options outstanding as of August 31, 2021 under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan and 720,644 shares of NTIC common stock issuable upon the exercise of stock options outstanding as of August 31, 2021 under the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan.

(2) Excludes employee stock purchase rights accruing under the Northern Technologies International Corporation Employee Stock Purchase Plan. Under such plan, each eligible employee may purchase up to 2,000 shares of NTIC common stock at semi-annual intervals on February 28th or 29th (as the case may be) and August 31st each year at a purchase price per share equal to 90% of the lower of (i) the closing sales price per share of NTIC common stock on the first day of the offering period or (ii) the closing sales price per share of NTIC common stock on the last day of the offering period.

(3) Amount includes 879,356 shares available as of August 31, 2021 for future issuance under Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan and 74,822 shares available at August 31, 2021 for future issuance under the Northern Technologies International Corporation Employee Stock Purchase Plan.

CORPORATE GOVERNANCE

Corporate Governance Guidelines

The Board of Directors has adopted Corporate Governance Guidelines. A copy of these Corporate Governance Guidelines can be found on the "Investor Relations—Corporate Governance" section of our corporate website *www.ntic.com*. Among the topics addressed in our Corporate Governance Guidelines are:

- Board size, composition and qualifications
- Selection of directors
- Board leadership
- Board committees
- Board and committee meetings
- Executive sessions of independent directors
- Meeting attendance by directors and non-directors
- Appropriate information and access
- Ability to retain advisors
- Conflicts of interest and director independence
- Board interaction with corporate constituencies
- Retirement and term limits
- Stock ownership guidelines
- Retirement and resignation policy
- Change of principal occupation and board memberships
- Board compensation
- Stock ownership by directors and executive officers
- Loans to directors and executive officers
- CEO evaluation
- Board and committee evaluation
- Director continuing education
- Succession planning
- Related person transactions
- Communications with directors
- Limits on board memberships held

Board Leadership Structure

Under our Corporate Governance Guidelines, the office of Chairman of the Board and Chief Executive Officer may or may not be held by one person. The Board of Directors believes it is best not to have a fixed policy on this issue and that it should be free to make this determination based on what it believes is best under the circumstances. However, the Board of Directors strongly endorses the concept of an independent director being in a position of leadership. Under our Corporate Governance Guidelines, if at any time the Chief Executive Officer and Chairman of the Board positions are held by the same person, the Board of Directors will elect an independent director as a lead independent director.

G. Patrick Lynch currently serves as our President and Chief Executive Officer, and Richard J. Nigon serves as our non-executive Chairman of the Board. Because the Chief Executive Officer and Chairman of the Board positions currently are not held by the same person, we do not have a lead independent director. We currently believe this leadership structure is in the best interests of NTIC and our stockholders and strikes the appropriate balance between the Chief Executive Officer's responsibility for the strategic direction, day-to-day-leadership and performance of NTIC and the Chairman's responsibility to provide oversight of NTIC's corporate governance and guidance to our Chief Executive Officer and to set the agenda for and preside over Board of Directors meetings.

At each regular Board of Directors meeting, our independent directors meet in executive session with no company management present during a portion of the meeting. After each such executive session, our Chairman of the Board provides our Chief Executive Officer with any actionable feedback from our independent directors.

Director Independence

The Board of Directors has affirmatively determined that five of NTIC's current seven directors are "independent directors" under the Listing Rules of the Nasdaq Stock Market: Nancy E. Calderon, Sarah E. Kemp, Sunggyu Lee, Ph.D., Richard J. Nigon and Konstantin von Falkenhausen.

The Board of Directors additionally made the affirmative determination that Soo Keong Koh, who resigned as a NTIC director on August 10, 2021, was an "independent director" under the Listing Rules of the Nasdaq Stock Market.

In making these affirmative determinations that such individuals are "independent directors," the Board of Directors reviewed and discussed information provided by the directors and by NTIC with regard to each director's business and personal activities as they may relate to NTIC and NTIC's management.

Board Meetings and Attendance

The Board of Directors met four times during the fiscal year ended August 31, 2021. Each of the directors attended at least 75% of the aggregate of the total number of meetings of the Board and the total number of meetings held by all Board committees on which the director served.

Board Committees

The Board of Directors has a standing Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee, each of which has the composition and responsibilities described below. The Board of Directors, from time to time, may establish other committees to facilitate the management of NTIC and may change the composition and responsibilities of our existing committees. Each of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee operates under a written charter adopted by the Board of Directors, which can be found on the "Investor Relations—Corporate Governance" section of our corporate website *www.ntic.com*.

The following table summarizes the current membership of each of our three Board committees.

Director	Audit	Compensation	Nominating and Corporate Governance
Nancy E. Calderon	Chair	—	—
Sarah E. Kemp	—	—	Chair
Sunggyu Lee, Ph.D.	—	√	—
G. Patrick Lynch	—	—	—
Ramani Narayan, Ph.D.	—	—	—
Richard J. Nigon	√	√	√
Konstantin von Falkenhausen	√	Chair	—

Audit Committee

Responsibilities. The Audit Committee provides assistance to the Board of Directors in fulfilling its responsibilities for oversight, for quality and integrity of the accounting, auditing, reporting practices, systems of internal accounting and financial controls, the annual independent audit of our financial statements, and the legal compliance and ethics programs of NTIC as established by management. The Audit Committee's primary responsibilities include:

- overseeing our financial reporting process, internal control over financial reporting and disclosure controls and procedures on behalf of the Board of Directors;
- having sole authority to appoint, retain and oversee the work of our independent registered public accounting firm and establish the compensation to be paid to the firm;
- reviewing and pre-approving all audit services and permissible non-audit services to be provided to NTIC by our independent registered public accounting firm;
- establishing procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters and for the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters;
- overseeing the establishment and administration of (including the grant of any waiver from) a written code of ethics applicable to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions; and
- coordinating with the Nominating and Corporate Governance Committee in that committee's primary oversight over NTIC's ESG activities.

The Audit Committee has the authority to engage the services of outside experts and advisors as it deems necessary or appropriate to carry out its duties and responsibilities.

Composition. The current members of the Audit Committee are Ms. Calderon, Mr. Nigon and Mr. von Falkenhausen. Mr. Nigon served as chair of the Audit Committee during fiscal 2021. Ms. Calderon assumed the role of Audit Committee chair immediately after the filing of NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2021.

Each member of the Audit Committee who served during fiscal 2021 is considered "independent" for purposes of membership on audit committees pursuant to the Listing Rules of the Nasdaq Stock Market and the rules and regulations of the SEC and is "financially literate" as required by the Listing Rules of the Nasdaq Stock Market. In addition, the Board of Directors has determined that Ms. Calderon and Mr. Nigon qualify as "audit committee financial experts" as defined by the rules and regulations of the SEC and meet the qualifications of "financial sophistication" under the Listing Rules of the Nasdaq Stock Market as a result of their extensive financial backgrounds and various financial positions they have held throughout their respective careers. Stockholders should understand that these designations related to our Audit Committee members' experience and understanding with respect to certain accounting and auditing matters do not impose upon any of them any duties, obligations or liabilities that are greater than those generally imposed on a member of the Audit Committee or of the Board of Directors.

Meetings. The Audit Committee met four times during fiscal 2021 and once in executive session with Baker Tilly, our independent registered public accounting firm.

Audit Committee Report. This report is furnished by the Audit Committee of the Board of Directors with respect to NTIC's financial statements for the fiscal year ended August 31, 2021.

One of the purposes of the Audit Committee is to oversee NTIC's accounting and financial reporting processes and the audit of NTIC's annual financial statements. NTIC's management is responsible for the preparation and presentation of complete and accurate financial statements. NTIC's independent registered public accounting firm, Baker Tilly US, LLP, is responsible for performing an independent audit of NTIC's financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and for issuing a report on their audit.

In performing its oversight role, the Audit Committee has reviewed and discussed NTIC's audited financial statements for the fiscal year ended August 31, 2021 with NTIC's management. Management represented to the Audit Committee that NTIC's financial statements were prepared in accordance with generally accepted accounting principles. The Audit Committee has discussed with Baker Tilly US, LLP, NTIC's independent registered public accounting firm, the matters required to be discussed under Public Company Accounting Oversight Board standards. The Audit Committee has received the written disclosures and the letter from Baker Tilly US, LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding Baker Tilly US, LLP's communications with the Audit Committee concerning independence. The Audit Committee has discussed with Baker Tilly US, LLP its independence and concluded that the independent registered public accounting firm is independent from NTIC and NTIC's management.

Based on the review and discussions of the Audit Committee described above, in reliance on the unqualified opinion of Baker Tilly US, LLP regarding NTIC's audited financial statements, and subject to the limitations on the role and responsibilities of the Audit Committee discussed above and in the Audit Committee's charter, the Audit Committee recommended to the Board of Directors that NTIC's audited financial statements for the fiscal year ended August 31, 2021 be included in its Annual Report on Form 10-K for the fiscal year ended August 31, 2021 for filing with the Securities and Exchange Commission.

This report is dated as of November 11, 2021.

Audit Committee

Richard J. Nigon, Chair
Nancy E. Calderon
Konstantin von Falkenhausen

Other Information. Additional information regarding the Audit Committee and our independent registered public accounting firm is disclosed under the "*Proposal Three—Ratification of Selection of Independent Registered Public Accounting Firm*" section of this proxy statement.

Compensation Committee

Responsibilities. The Compensation Committee provides assistance to the Board of Directors in fulfilling its oversight responsibility relating to compensation of our Chief Executive Officer and other executive officers and administers our equity compensation plans. The Compensation Committee's primary responsibilities include:

- recommending to the Board of Directors for its determination the annual salaries, incentive compensation, long-term compensation and any and all other compensation applicable to our executive officers;

- establishing and, from time to time, reviewing and revising corporate goals and objectives with respect to compensation for our executive officers and establishing and leading a process for the full Board of Directors to evaluate the performance of our executive officers in light of those goals and objectives;
- administering our equity compensation plans and recommending to the Board of Directors for its determination grants of options or other equity-based awards for executive officers, employees and independent consultants under our equity compensation plans;
- reviewing our policies with respect to employee benefit plans;
- establishing and, from time to time, reviewing and revising processes and procedures for the consideration and determination of executive compensation;
- overseeing and periodically reviewing NTIC's culture and policies and strategies related to human capital management; and
- coordinating with the Nominating and Corporate Governance Committee in that committee's primary oversight over NTIC's ESG activities.

The Compensation Committee has the authority to engage the services of outside experts and advisors as it deems necessary or appropriate to carry out its duties and responsibilities, and prior to doing so, assesses the independence of such experts and advisors from management.

Composition. The current members of the Compensation Committee are Dr. Lee, Mr. Nigon and Mr. von Falkenhausen. Mr. von Falkenhausen is the current Chair of the Compensation Committee.

The Board of Directors has determined that each of the members of the Compensation Committee who served during fiscal 2021 is considered an "independent director" under the Listing Rules of the Nasdaq Stock Market, a "non-employee director" within the meaning of Rule 16b-3 under the Exchange Act, and otherwise independent under the rules and regulations of the SEC.

Processes and Procedures for Consideration and Determination of Executive Compensation. As described in more detail above under "*—Responsibilities*," the Board of Directors has delegated to the Compensation Committee the responsibility, among other things, to recommend to the Board of Directors any and all compensation payable to our executive officers, including annual salaries, incentive compensation and long-term incentive compensation, and to administer our equity and incentive compensation plans applicable to our executive officers. Decisions regarding executive compensation made by the Compensation Committee are not considered final and are subject to final review and approval by the entire Board of Directors. Under the terms of its formal written charter, the Compensation Committee has the power and authority, to the extent permitted by our Bylaws and applicable law, to delegate all or a portion of its duties and responsibilities to a subcommittee of the Compensation Committee. The Compensation Committee has not generally delegated any of its duties and responsibilities to subcommittees, but rather has taken such actions as a committee, as a whole.

Our President and Chief Executive Officer and our Chief Financial Officer assist the Compensation Committee in gathering compensation related data regarding our executive officers and making recommendations to the Compensation Committee regarding the form and amount of compensation to be paid to each executive officer. In making final recommendations to the Board of Directors regarding compensation to be paid to our executive officers, the Compensation Committee considers the recommendations of our President and Chief Executive Officer and our Chief Financial Officer, but also considers other factors, such as its own views as to the form and amount of compensation to be paid, the achievement by NTIC of pre-established performance objectives, the general performance of NTIC and the individual officers, the performance of NTIC's stock price and other factors that may be relevant.

During fiscal 2021, the Compensation Committee engaged Mercer US Inc. to provide analysis and recommendations to the Compensation Committee regarding peer group selection for executive compensation comparisons and benchmarking certain aspects of our executive compensation program. A representative of Mercer attended a Compensation Committee meeting and met with members of the Compensation Committee outside the presence of management. Mercer reported to the Compensation Committee and not to management.

In determining to engage Mercer, the Compensation Committee considered the independence of Mercer, taking into consideration relevant factors, including the absence of other services provided to the Company by Mercer, the amount of fees the Company paid to Mercer as a percentage of Mercer's total revenue, the policies and procedures of Mercer that are designed to prevent conflicts of interest, any business or personal relationship of the individual compensation advisors employed by Mercer with any executive officer of the Company, any business or personal relationship the individual compensation advisors employed by Mercer have with any member of the Compensation Committee, and any stock of the Company owned by Mercer or the individual compensation advisors employed by Mercer. The Compensation Committee has determined, based on its analysis and in light of all relevant factors, including the factors listed above, that the work of Mercer and the individual compensation advisor employed by Mercer as a compensation consultant to the Compensation Committee has not created any conflicts of interest, and that Mercer is independent pursuant to the independence standards set forth in Nasdaq's continued listing requirements promulgated pursuant to Section 10C of the Exchange Act.

Final deliberations and decisions by the Compensation Committee regarding its recommendations to the Board of Directors of the form and amount of compensation to be paid to our executive officers are made by the Compensation Committee, without the presence of any executive officer of NTIC. In making final decisions regarding compensation to be paid to our executive officers, the Board of Directors considers the same factors and gives considerable weight to the recommendations of the Compensation Committee.

Meetings. The Compensation Committee met twice during fiscal 2021.

Nominating and Corporate Governance Committee

Responsibilities. The primary responsibilities of the Nominating and Corporate Governance Committee include:

- identifying individuals qualified to become members of the Board of Directors;
- recommending director nominees for each annual meeting of our stockholders and director nominees to fill any vacancies that may occur between meetings of stockholders;
- being aware of best practices in corporate governance matters;
- developing and overseeing an annual Board of Directors and Board committee evaluation process;
- establishing and leading a process for determination of the compensation applicable to the non-employee directors on the Board;
- overseeing NTIC's ESG activities and coordinating with and soliciting input from the Compensation Committee and the Audit Committee in formulating the approach to NTIC's ESG activities.

The Nominating and Corporate Governance Committee has the authority to engage the services of outside experts and advisors as it deems necessary or appropriate to carry out its duties and responsibilities.

Composition. The current members of the Nominating and Corporate Governance Committee are Ms. Kemp and Mr. Nigon. Ms. Kemp is the chair of the Nominating and Corporate Governance Committee. Mr. Koh served on the Nominating and Corporate Governance Committee during fiscal 2021 until his resignation on August 10, 2021.

The Board of Directors has determined that each of the members of the Nominating and Corporate Governance Committee who served during fiscal 2021 is considered an "independent director" under the Listing Rules of the Nasdaq Stock Market.

Processes and Procedures for Consideration and Determination of Director Compensation. As mentioned above under "—*Responsibilities*," the Board of Directors has delegated to the Nominating and Corporate Governance Committee the responsibility, among other things, to review and make recommendations to the Board of Directors concerning compensation for non-employee members of the Board of Directors, including but not limited to retainers, meeting fees, committee chair and member retainers and equity compensation. Decisions regarding director compensation made by the Nominating and Corporate Governance Committee are not considered final and are subject to final review and approval by the entire Board of Directors. Under the terms of its formal written charter, the Nominating and Corporate Governance Committee has the power and authority, to the extent permitted by our Bylaws and applicable law, to delegate all or a portion of its duties and responsibilities to a subcommittee of the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee has not generally delegated any of its duties and responsibilities to subcommittees, but rather has taken such actions as a committee, as a whole.

In making recommendations to the Board of Directors regarding compensation to be paid to our non-employee directors, the Nominating and Corporate Governance Committee considers fees and other compensation paid to directors of comparable public companies, the number of board and committee meetings that our directors are expected to attend, and other factors that may be relevant. In making final decisions regarding non-employee director compensation, the Board of Directors considers the same factors and the recommendation of the Nominating and Corporate Governance Committee.

Meetings. The Nominating and Corporate Governance Committee met twice during fiscal 2021.

Director Nominations Process

Pursuant to a Director Nominations Process adopted by the Board of Directors, in selecting nominees for the Board of Directors, the Nominating and Corporate Governance Committee first determines whether the incumbent directors are qualified to serve, and wish to continue to serve, on the Board. The Nominating and Corporate Governance Committee believes that NTIC and its stockholders benefit from the continued service of qualified incumbent directors because those directors have familiarity with and insight into NTIC's affairs that they have accumulated during their tenure with NTIC. Appropriate continuity of Board membership also contributes to the Board's ability to work as a collective body. Accordingly, it is the practice of the Nominating and Corporate Governance Committee, in general, to re-nominate an incumbent director if the director wishes to continue his or her service with the Board, the director continues to satisfy the criteria for membership on the Board that the Nominating and Corporate Governance Committee generally views as relevant and considers in deciding whether to re-nominate an incumbent director or nominate a new director, the Nominating and Corporate Governance Committee believes the director continues to make important contributions to the Board, and there are no special, countervailing considerations against re-nomination of the director.

Pursuant to a Director Nominations Process adopted by the Board of Directors, in identifying and evaluating new candidates for election to the Board, the Nominating and Corporate Governance Committee solicits recommendations for nominees from persons whom the Nominating and Corporate Governance Committee believes are likely to be familiar with qualified candidates having the qualifications, skills and characteristics required for Board nominees from time to time. Such persons may include members of the Board of Directors and our senior management and advisors to NTIC. In addition, from time to time, if appropriate, the Nominating and Corporate Governance Committee may engage a search firm to assist it in identifying and evaluating qualified candidates.

The Nominating and Corporate Governance Committee reviews and evaluates each candidate whom it believes merits serious consideration, taking into account available information concerning the candidate, any qualifications or criteria for Board membership established by the Nominating and Corporate Governance Committee, the existing composition of the Board, and other factors that it deems relevant. In conducting its review and evaluation, the Nominating and Corporate Governance Committee solicits the views of our management, other Board members, and other individuals it believes may have insight into a candidate. The Nominating and Corporate Governance Committee may designate one or more of its members and/or other Board members to interview any proposed candidate.

The Nominating and Corporate Governance Committee will consider recommendations for the nomination of directors submitted by our stockholders. For more information, see the information set forth under "*Stockholder Proposals and Director Nominations for the 2023 Annual Meeting of Stockholders ─ Director Nominations for 2023 Annual Meeting*." The Nominating and Corporate Governance Committee will evaluate candidates recommended by stockholders in the same manner as those recommended as stated above.

There are no formal requirements or minimum qualifications that a candidate must meet in order for the Nominating and Corporate Governance Committee to recommend the candidate to the Board. The Nominating and Corporate Governance Committee believes that each nominee should be evaluated based on his or her merits as an individual, taking into account the needs of NTIC and the Board of Directors. However, in evaluating candidates, there are a number of criteria that the Nominating and Corporate Governance Committee generally views as relevant and is likely to consider. Some of these factors include whether the candidate is an "independent director" under the Listing Rules of the Nasdaq Stock Market and meets any other applicable independence tests under the federal securities laws and rules and regulations of the SEC; whether the candidate is "financially literate" and otherwise meets the requirements for serving as a member of an audit committee under the Listing Rules of the Nasdaq Stock Market; whether the candidate is "financially sophisticated" under the Listing Rules of the Nasdaq Stock Market and an "audit committee financial expert" under the federal securities laws and the rules and regulations of the SEC; the needs of NTIC with respect to the particular talents and experience of its directors; the personal and professional integrity and reputation of the candidate; the candidate's level of education and business experience; the candidate's broad-based business acumen; the candidate's level of understanding of our business and its industry; the candidate's ability and willingness to devote adequate time to the work of the Board of Directors and its committees; the fit of the candidate's skills and personality with those of other directors and potential directors in building a board that is effective, collegial and responsive to the needs of NTIC; whether the candidate possesses strategic thinking and a willingness to share ideas; the candidate's diversity of experiences, expertise, background and other attributes; and the candidate's ability to represent the interests of all stockholders and not a particular interest group.

While we do not have a formal stand-alone diversity policy in considering whether to recommend any director nominee, including candidates recommended by stockholders, and the Board of Directors has not adopted a formal definition of diversity, the Board's diversity is a consideration in the director nomination process. As discussed above, the Nominating and Corporate Governance Committee considers the factors described above, including the candidate's diversity of experiences, expertise, background and other attributes. The Nominating and Corporate Governance Committee seeks nominees with a broad diversity of experience, expertise, backgrounds and other attributes, including diversity of age, gender, race, ethnicity, education, skills, knowledge, and viewpoints. The Nominating and Corporate Governance Committee does not assign specific weights to particular criteria and no particular criterion is necessarily applicable to all prospective nominees. The Board of Directors believes that the backgrounds and qualifications of directors, considered as a group, should provide a significant mix of experience, knowledge and abilities that will allow the Board of Directors to fulfill its responsibilities.

For this year's election, the Board of Directors has nominated seven individuals. All are incumbent nominees who collectively bring tremendous diversity to the Board. Each nominee is a strategic thinker and has varying, specialized experience in the areas relevant to NTIC and its businesses. Moreover, their collective experience covers a wide range of geographies and industries, and roles in academia, corporate governance and government. The seven director nominees range in age from 54 to 73; two of the seven director nominees are women; two are of Asian descent; one is a citizen of the Republic of Korea and one is a citizen of Germany.

Board Diversity Matrix

The recently adopted Nasdaq listing requirements require each listed company to have, or explain why it does not have, two diverse directors on the board, including at least one diverse director who self-identifies as female and one diverse director who self-identifies as an underrepresented minority or LGBTQ+ (subject to the exceptions). Our current Board composition is in compliance with the Nasdaq diversity requirement.

The table below provides certain highlights of the composition of our board members and nominees. Each of the categories listed in the below table has the meaning as it is used in Nasdaq Rule 5605(f).

Board Diversity Matrix (As of November 23, 2021)				
Total Number of Directors	7			
	Female	**Male**	**Non-Binary**	**Did Not Disclosure Gender**
Part I: Gender Identity				
Directors	2	5	—	—
Part II: Demographic Background				
African American or Black	—	—	—	—
Alaskan Native or Native American	—	—	—	—
Asian	—	2	—	—
Hispanic or Latinx	—	—	—	—
Native Hawaiian or Pacific Islander	—	—	—	—
White	2	3	—	—
Two or More Races or Ethnicities	—	—	—	—
LGBTQ+	—			
Did Not Disclose Demographic Background	—			

Board Oversight of Risk

The Board of Directors as a whole has responsibility for risk oversight, with more in-depth reviews of certain areas of risk being conducted by the relevant Board committees that report on their deliberations to the full Board of Directors. The oversight responsibility of the Board and its committees is enabled by management reporting processes that are designed to provide information to the Board about the identification, assessment and management of critical risks and management's risk mitigation strategies. The areas of risk that we focus on include operational, financial (accounting, credit, liquidity and tax), legal, compensation, competitive, health, safety, environmental, economic, political and reputational risks.

The standing committees of the Board of Directors oversee risks associated with their respective principal areas of focus. The Audit Committee's role includes a particular focus on the qualitative aspects of financial reporting, on our processes for the management of business and financial risk, our financial reporting obligations and for compliance with significant applicable legal, ethical and regulatory requirements. The Audit Committee, along with management, is also responsible for developing and participating in a process for review of important financial and operating topics that present potential significant risk to NTIC. The Compensation Committee is responsible for overseeing risks and exposures associated with our executive compensation programs and arrangements and management succession planning. The Nominating and Corporate Governance Committee oversees risks relating to our corporate governance matters, director compensation programs and director succession planning.

We recognize that a fundamental part of risk management is understanding not only the risks a company faces and what steps management is taking to manage those risks, but also understanding what level of risk is appropriate for NTIC. The involvement of the full Board of Directors each year in establishing our key corporate business strategies and annual fiscal budget is a key part of the Board of Directors' assessment of management's appetite for risk and also a determination of what constitutes an appropriate level of risk for NTIC.

We believe our current Board leadership structure is appropriate and helps ensure proper risk oversight for NTIC for a number of reasons, including: (1) general risk oversight by the full Board of Directors in connection with its role in reviewing our key business strategies and monitoring on an on-going basis the implementation of our key business strategies; (2) more detailed oversight by our standing Board committees that are currently comprised of and chaired by our independent directors, and (3) the focus of our Chairman of the Board on allocating appropriate Board agenda time for discussion regarding the implementation of our key business strategies and specifically risk management.

Code of Ethics

The Board of Directors has adopted a Code of Ethics, which applies to all of our directors, executive officers, including our Chief Executive Officer and Chief Financial Officer, and other employees, and meets the requirements of the SEC and the Nasdaq Stock Market. A copy of our Code of Ethics is available on the "Investor Relations—Corporate Governance" section of our corporate website *www.ntic.com*.

Policy Regarding Director Attendance at Annual Meetings of Stockholders

Although a regular Board of Directors meeting is generally held on the day of each annual meeting of stockholders, this meeting is typically held by telephone. It is the policy of the Board of Directors that if a regular in-person Board of Directors meeting occurs on the day of the annual meeting of stockholders, directors standing for re-election should attend the annual meeting of stockholders, if their schedules permit. Since a telephonic Board meeting was held on the day of last year's annual meeting of stockholders, the only directors who attended the meeting were Mr. Nigon and Mr. Lynch.

Complaint Procedures

The Audit Committee has established procedures for the receipt, retention and treatment of complaints received by NTIC regarding accounting, internal accounting controls or auditing matters, and the submission by our employees, on a confidential and anonymous basis, of concerns regarding questionable accounting or auditing matters. Our personnel with such concerns are encouraged to discuss their concerns with our outside legal counsel, who in turn will be responsible for informing the Audit Committee.

Stockholder Engagement

We are committed to a robust and proactive stockholder engagement program. The Board of Directors values the perspectives of our stockholders, and feedback from stockholders on our business, corporate governance, executive compensation, and sustainability practices are important considerations for Board discussions throughout the year.

Some of the actions we have taken in response to feedback from proxy advisory firms and stockholders over the last several years are described below.

What We Heard	What We Did
Encourage Board refreshment	We added two new members to the Board of Directors in October 2019.
Increase Board gender diversity	We added Nancy E. Calderon and Sarah E. Kemp to the Board of Directors.
Increase stockholder influence over director elections	In November 2020, we adopted a "plurality plus" vote standard for uncontested director elections, with a director resignation policy, instead of a simple plurality vote standard.
Align long-term incentives	We extended the vesting of our annual stock option grants to three-year vesting in response to a concern raised by one of our institutional stockholders.
Increase visibility of ESG principles	We adopted a Health, Safety and Environment Policy as well as a Human Rights Policy to formalize our approach and further our goals with respect to these matters, as described below.
Ensure the recovery of incentive compensation based on incorrect calculations that resulted in a financial restatement or egregious behavior	We adopted a robust clawback policy which applies to not only financial restatements but also if an executive engages in egregious conduct that is substantially detrimental to NTIC.
Align the interests of executive officers and directors with those of stockholders	In November 2021, we adopted stock ownership guidelines applicable to our executive officers and directors to ensure that their interests would be closely aligned with those of our stockholders.

Process Regarding Stockholder Communications with Board of Directors

Stockholders may communicate with the Board of Directors or any one particular director by sending correspondence, addressed to NTIC's Corporate Secretary, Northern Technologies International Corporation, 4201 Woodland Road, Circle Pines, MN 55014 with an instruction to forward the communication to the Board of Directors or one or more particular directors. NTIC's Corporate Secretary will promptly forward all such stockholder communications to the Board of Directors or the one or more particular directors, with the exception of any advertisements, solicitations for periodical or other subscriptions and other similar communications.

DIRECTOR COMPENSATION

Summary of Cash and Other Compensation

The table below provides summary information concerning the compensation of each individual who served as a director of NTIC during the fiscal year ended August 31, 2021, other than G. Patrick Lynch, our President and Chief Executive Officer, who was not compensated separately for serving on the Board of Directors during fiscal 2021. His compensation during fiscal 2021 for serving as an executive officer of NTIC is set forth under "*Executive Compensation*" included elsewhere in this proxy statement.

DIRECTOR COMPENSATION – FISCAL 2021

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)(2)	All Other Compensation ($)(3)	Total ($)
Nancy E. Calderon	$ 38,500	$ 50,000	$ —	$ 88,500
Sarah E. Kemp	35,500	50,000	—	85,500
Soo-Keong Koh(4)	26,500	50,000	—	76,500
Sunggyu Lee, Ph.D.	34,000	0	—	34,000
Ramani Narayan, Ph.D.	31,000	50,000	144,000	225,000
Richard J. Nigon	64,500	60,000	—	124,500
Konstantin von Falkenhausen	45,500	50,000	—	95,500

(1) The amounts in this column do not reflect compensation actually received by the directors nor do they reflect the actual value that will be recognized by the directors. Instead, the amounts reflect the grant date fair value for option grants made by us in fiscal 2021, as calculated in accordance with FASB ASC Topic 718.

On September 1, 2020, each then current director, other than Dr. Lee and Mr. Lynch, received a stock option to purchase 16,026 shares of our common stock at an exercise price of $8.24 per share granted under the Northern Technologies International Corporation 2019 Stock Incentive Plan, the material terms of which are described in more detail under "*Executive Compensation—Stock Incentive Plans*." These options vested in full on September 1, 2021 and will expire on August 31, 2030 or earlier in the case of a director whose service as a director is terminated prior to such date. In addition, on September 1, 2020, Mr. Nigon received an additional stock option to purchase 3,205 shares of our common stock in consideration for his service as Chairman of the Board. The terms of this stock option are identical to the other director stock options granted on that date. See "*—Non-Employee Director Compensation Program—Stock Options*." The grant date fair value associated with these awards and as calculated in accordance with FASB ASC Topic 718 is determined based on our Black-Scholes option pricing model. The grant date fair value per share for the options granted on September 1, 2020 was $7.29 and was determined using the following specific assumptions: risk free interest rate: 0.77%; expected life: 10.0 years; expected volatility: 45.4%; and expected dividend yield: 0%.

(2) The table below provides information regarding the aggregate number of options to purchase shares of our common stock outstanding at August 31, 2021 and held by each of the directors listed in the Director Compensation Table. Note that because of the grant date, neither the Director Compensation Table nor the table below reflect option grants on September 1, 2021. See "*—Non-Employee Director Compensation Program—Stock Options*."

Name	Aggregate Number Of Securities Underlying Options	Exercisable/ Unexercisable	Exercise Price(s)	Expiration Date(s)
Nancy E. Calderon	24,392	8,366/16,026	$ 8.24 – 12.09	10/21/2029 – 08/31/2030
Sarah E. Kemp	24,392	8,366/16,026	$ 8.24 – 12.09	10/21/2029 – 08/31/2030
Soo-Keong Koh	5,546	5,546/0	$18.23	8/31/2028

Name	Aggregate Number Of Securities Underlying Options	Exercisable/ Unexercisable	Exercise Price(s)	Expiration Date(s)
Sunggyu Lee, Ph.D.	8,000	8,000/0	$7.35	8/31/2023
Ramani Narayan, Ph.D...........	73,309	57,283/16,026	$ 6.70 – 18.23	08/31/2023 – 8/31/2030
Richard J. Nigon.....................	99,972	80,741/19,231	$ 6.70 – 18.23	08/31/2023 – 8/31/2030
Konstantin von Falkenhausen .	79,309	63,283/16,026	$5.125 – 18.23	11/15/2022 – 8/31/2030

(3) We do not provide perquisites or other personal benefits to our directors. The amounts reflected for Dr. Narayan reflects consulting fees paid during the fiscal year ended August 31, 2021 as described in more detail below under "—*Consulting Agreement*."

(4) Mr. Koh resigned from our board of directors effective as of August 10, 2021.

Non-Employee Director Compensation Program

Overview. Our non-employee directors for purposes of our director compensation program currently consist of Nancy E. Calderon, Sarah E. Kemp, Sunggyu Lee, Ph.D., Ramani Narayan, Ph.D., Richard J. Nigon and Konstantin von Falkenhausen. Our non-employee directors for fiscal 2021 were Nancy E. Calderon, Sarah E. Kemp, Soo-Keong Koh, Sunggyu Lee, Ph.D., Ramani Narayan, Ph.D., Richard J. Nigon and Konstantin von Falkenhausen. Soo-Keong Koh resigned from our Board of Directors on August 10, 2021.

We use a combination of cash and long-term equity-based incentive compensation in the form of annual stock option grants to attract and retain qualified candidates to serve on the Board of Directors. In setting non-employee director compensation, we follow the processes and procedures described under "*Corporate Governance—Nominating and Corporate Governance Committee—Processes and Procedures for the Determination of Director Compensation*."

Cash Retainers and Meeting Fees. Each of our non-employee directors receives annual cash retainers and meeting fees. The following table sets forth the annual cash retainers paid to our non-employee directors during fiscal 2021:

Description	Annual Cash Retainer
Non-employee Board Member	$ 25,000
Chairman of the Board..	15,000
Audit Committee Chair..	5,000
Audit Committee Member (including Chair)...	4,500
Compensation Committee Chair..	4,000
Compensation Committee (including Chair)	3,000
Nominating and Corporate Governance Committee Chair.................................	2,000
Nominating and Corporate Governance Committee (including Chair)................	3,000

Each of our non-employee directors also receives $1,000 for each Board, Board committee and strategy review meeting attended. No director, however, earns more than $1,000 per day in Board, Board committee and strategy review meeting fees.

Stock Options. Pursuant to our non-employee director compensation program, each non-employee director who is expected to stand for re-election at the next annual meeting of stockholders, is automatically granted a ten-year non-qualified option to purchase $50,000 in shares of our common stock on the first day of each fiscal year in consideration for his or her service as a director of NTIC, and the Chairman of the Board is automatically granted an additional ten-year non-qualified option to purchase

$10,000 in shares of our common stock on the first day of each fiscal year in consideration for his or her services as Chairman. In addition, each new non-employee director is automatically granted a ten-year non-qualified option to purchase a pro rata portion of $50,000 shares of our common stock calculated by dividing the number of months remaining in the fiscal year at the time of election or appointment by 12 on the date the director is first elected or appointed as a director of NTIC. The number of shares of common stock underlying the options is determined based on the grant date fair value of the options. Each option becomes exercisable in full on the one-year anniversary of the grant date. The exercise price of such options is equal to the fair market value of a share of our common stock on the grant date.

Each non-employee director of NTIC as of the first day of fiscal 2021, September 1, 2020, received a stock option award pursuant to this program, with the exception of Dr. Lee, who has rejected option grants to directors in connection with his services as a director of NTIC since 2014. More recently, each current non-employee director of NTIC as of the first day of fiscal 2022, September 1, 2021, received a stock option award pursuant to this program, with the exception of Dr. Lee and Mr. Koh who resigned on August 10, 2021. These stock options will vest in full on the first anniversary of the grant date.

Under the terms of our stock incentive plan, unless otherwise provided in a separate agreement or modified in connection with the termination of a director's service, if a director's service with NTIC terminates for any reason, the unvested portion of options then held by the director will immediately terminate and the director's right to exercise the then vested portion will:

- immediately terminate if the director's service relationship with NTIC terminated for "cause";
- continue for a period of 12 months if the director's service relationship with NTIC terminates as a result of the director's death, disability or retirement; or
- continue for a period of three months if the director's service relationship with NTIC terminates for any reason, other than for cause or upon the director's death, disability or retirement.

We refer you to note (1) to the "*Director Compensation Table*" for a summary of all option grants to our non-employee directors during the fiscal year ended August 31, 2021 and note (2) to the "*Director Compensation Table*" for a summary of all options to purchase shares of our common stock held by our non-employee directors as of August 31, 2021.

Reimbursement of Expenses. All of our directors are reimbursed for travel expenses for attending meetings and other miscellaneous out-of-pocket expenses incurred in performing their Board of Directors functions.

Consulting Agreement

NTIC, Bioplastic Polymers LLC and Dr. Narayan are parties to a consulting agreement pursuant to which Dr. Narayan provides certain consulting services to us relating to our Natur-Tec® business and bioplastics program. The consulting agreement sets out terms for clear separation between Dr. Narayan's work at Michigan State University and any related inventions and his work with us and related inventions. In exchange for the consulting services, we pay Dr. Narayan $12,000 per month. The term of the consulting agreement is five years, and unless earlier terminated by the parties, will terminate on January 11, 2022. Either party may terminate the consulting agreement earlier upon 30 days prior written notice. The consulting agreement will terminate automatically upon the death of Dr. Narayan or in the event of his disability that prevents him from performing the consulting services under the agreement. We paid consulting fees to Bioplastic Polymers LLC, which is owned by Ramani Narayan, Ph.D., in the aggregate amount of $144,000 during the fiscal year ended August 31, 2021.

EXECUTIVE COMPENSATION

Compensation Review

In this Compensation Review, we describe the key principles and approaches we use to determine elements of compensation paid to, awarded to and earned by G. Patrick Lynch, who serves as our President and Chief Executive Officer (referred to as our "CEO"), and Matthew C. Wolsfeld, who serves as our Chief Financial Officer (referred to as our "CFO"). Their compensation is set forth in the Summary Compensation Table found later in this proxy statement. The CEO and CFO are the only two individuals who have been designated by our Board of Directors as "executive officers" of NTIC within the meaning of the federal securities laws. This Compensation Review should be read in conjunction with the accompanying compensation tables, corresponding notes and narrative discussion, as they provide additional information and context to our compensation disclosures. We refer to the CEO and CFO in this proxy statement as our "named executive officers" or "executives."

When reading this Compensation Review, please note that we are a "smaller reporting company" under the federal securities laws and are not required to provide a "Compensation Discussion and Analysis" of the type required by Item 402 of Regulation S-K. This Compensation Review is intended to supplement the SEC-required disclosure, which is included below this section, and it is not a Compensation Discussion and Analysis.

Executive Summary

One of our key executive compensation objectives is to link pay to performance by aligning the financial interests of our executives with those of our stockholders and by emphasizing pay for performance in our compensation programs. We believe we accomplish this objective primarily through our annual bonus plan, which compensates executives for achieving annual corporate financial goals and individual goals.

Our fiscal 2021 total net sales increased 18.6% to $56,493,819 compared to fiscal 2020 and NTIC incurred net income attributable to NTIC of $6,281,238, or $0.64 per diluted common share, for fiscal 2021 compared to net loss attributable to NTIC of $(1,337,709), or $(0.15) per diluted common share.

Total compensation for our named executive officers for fiscal 2021 increased approximately 40% compared to fiscal 2020, primarily as a result of increased annual bonus plan payouts.

Compensation Highlights and Best Practices

Our compensation practices include many best pay practices that support our executive compensation objectives and principles and benefit our stockholders, such as the following:

- *Pay for performance*. We tie compensation directly to financial performance. Our annual bonus plan pays out only if a certain minimum adjusted earnings threshold is met, and the payouts are completely dependent upon our actual adjusted earnings.

- *At-risk pay*. A significant portion of executives' compensation is "performance-based" or "at risk." For fiscal 2021, 58% of total compensation for our named executive officers was performance-based, assuming grant date fair values for equity awards.

- *Equity-based pay*. A significant portion of executives' compensation is "equity-based" and in the form of stock-based incentive awards. For fiscal 2021, 36% of total compensation for our

CEO and 22% of total compensation for our CFO was equity-based, assuming grant date fair values for equity awards.

- *Clawback policy*. Our stock incentive plan and related award agreements include a "clawback" mechanism to recoup incentive compensation if it is determined that executives engaged in certain conduct adverse to our interests. In addition, in August 2018, we adopted a clawback policy pursuant to which we may recover certain incentive compensation from current or former executive officers in the event a financial metric used to determine the vesting or payment of incentive compensation to an executive was calculated incorrectly or the executive engaged in egregious conduct that is substantially detrimental to NTIC.

- *No tax gross-ups*. We do not provide any tax "gross-up" payments in connection with any compensation, benefits or perquisites provided to our executives.

- *Limited perquisites*. We provide only limited perquisites to our executives.

- *Stock ownership guidelines*. We maintain stock ownership guidelines that allow us to ensure that the interests of our executive officers are closely aligned with those of our stockholders.

- *No hedging or pledging*. We prohibit our executives from engaging in hedging transactions, such as short sales, transactions in publicly traded options, such as puts, calls and other derivatives, and pledging our common stock in any significant respect.

Say-on-Pay Vote

At our 2021 Annual Meeting of Stockholders, our stockholders had the opportunity to provide an advisory vote on the compensation paid to our named executive officers, or a "say-on-pay" vote. Of the votes cast by our stockholders, 98% were in favor of our "say-on-pay" proposal. Accordingly, the Compensation Committee generally believes that these results affirmed stockholder support of our approach to executive compensation and did not believe it was necessary to make, and therefore has not made, any changes to our executive pay program solely in response to that vote. In accordance with the result of the advisory vote on the frequency of the say-on-pay vote, which was conducted at our 2020 Annual Meeting of Stockholders, our Board of Directors has determined that we will conduct an executive compensation advisory vote every year. Accordingly, the next say-on-pay vote will occur at our 2023 Annual Meeting of Stockholders. Our next vote on the frequency of the say-on-pay vote will occur at our 2026 Annual Meeting of Stockholders.

Executive Compensation Objectives

Our guiding compensation philosophy is to maintain an executive compensation program that allows us to attract, retain, motivate and reward qualified and talented executives that will enable us to grow our business, achieve our annual, long-term and strategic goals and drive long-term stockholder value.

The following core principles provide a framework for our executive compensation program:

- Align interests of our executives with stockholder interests;
- Integrate compensation with our business plans and strategic goals;
- Link amount of compensation to both company and individual performance; and
- Provide fair and competitive compensation opportunities that attract and retain executives.

How We Make Compensation Decisions

There are several elements to our executive compensation decision-making, which we believe allow us to most effectively implement our compensation philosophy. Each of these elements and their roles are described briefly below.

Role of the Compensation Committee. The Compensation Committee, which is comprised solely of independent directors, oversees our executive compensation program. Within its duties, the Compensation Committee recommends compensation for the CEO and CFO. In doing so, the Compensation Committee:

- Approves and recommends that the Board approve the total executive compensation package for each executive, including his base salary, annual bonus payout and annual stock option awards;
- Approves and recommends that the Board approve the terms of our annual bonus plan;
- Approves and recommends that the Board approve annual stock option grants;
- Evaluates market competitiveness of our executive compensation program; and
- Evaluates proposed significant changes to all other elements of our executive compensation program.

In setting or recommending executive compensation for our executives, the Compensation Committee considers the following primary factors:

- each executive's position within NTIC and the level of responsibility;
- the ability of the executive to impact key business initiatives;
- the executive's individual experience and qualifications;
- company performance, as compared to specific pre-established objectives;
- individual performance, generally and as compared to specific pre-established objectives;
- the executive's current and historical compensation levels;
- advancement potential and succession planning considerations;
- an assessment of the risk that the executive would leave NTIC and the harm to our business initiatives if the executive left;
- the retention value of executive equity holdings, including outstanding stock options;
- the dilutive effect on the interests of our stockholders of long-term equity-based incentive awards; and
- anticipated share-based compensation expense as determined under applicable accounting rules.

The Compensation Committee also considers the recommendations of the CEO with respect to executive compensation to be paid to other executives and employees. The significance of any individual factor described above in setting executive compensation will vary from year to year and may vary among our executives. In making its final decision regarding the form and amount of compensation to be paid to our named executive officers (other than the CEO), the Compensation Committee considers and gives great weight to the recommendations of the CEO recognizing that due to his reporting and otherwise close relationship with each executive and employee, the CEO often is in a better position than the Compensation Committee to evaluate the performance of each executive (other than himself). In making its final decision regarding the form and amount of compensation to be paid to the CEO, the Compensation Committee considers the results of the CEO's self-review and his individual annual performance review by the Compensation Committee and the recommendations of our non-employee directors. The CEO's compensation is approved by the Board of Directors (with the CEO abstaining), upon recommendation of the Compensation Committee.

Role of Management. Management's role is to provide current compensation information to the Compensation Committee and provide analysis and recommendations on executive compensation to the Compensation Committee based on the executive's level of professional experience; the executive's duties and responsibilities; individual performance; tenure; and historic corporate performance. None of our executives, including the CEO, provides input or recommendations with respect to his own compensation.

Use of Market Data. Since there are no public companies of which NTIC is aware that are substantially similar to NTIC, in terms of its business, industry and corporate profile, the Compensation Committee has not used market data to review and evaluate executive compensation in any material respect. However, the Compensation Committee has historically used a group of peer companies with a market capitalization similar to NTIC and either in a similar industry or located in Minnesota.

Elements of Our Executive Compensation Program

Our executive compensation program for the fiscal year ended August 31, 2021 consisted of the following key elements:

- Base salary;
- Annual incentive compensation;
- Long-term equity-based incentive compensation, in the form of stock options; and
- All other compensation, including health and welfare benefits, retirement plans and perquisites.

The table below provides some of the key characteristics of and purpose for each element along with some key actions taken during fiscal 2021.

Element	Key Characteristics	Purpose	Key Fiscal 2021 Actions
Base Salary	A fixed amount, paid in cash and reviewed annually and, if appropriate, adjusted.	Provide a source of fixed income that is competitive and reflects scope and responsibility of the position held.	Our named executive officers did not receive an increase to their fiscal 2020 annual base salaries.
Annual Incentive	A variable, short-term element of compensation that is typically payable in cash and is based on Adjusted EBITOI and individual performance goals.	Motivate and reward our executives for achievement of annual business results intended to drive overall company performance.	Messrs. Lynch and Wolsfeld received bonuses in the amount of $376,539 and $278,311, respectively, in each case representing 87% of their annual base salary. A portion of the annual incentive earned for fiscal 2021 was paid in the form of a stock option grant made at the beginning of fiscal 2021.

Element	Key Characteristics	Purpose	Key Fiscal 2021 Actions
Long-Term Equity-Based Incentive	A variable, long-term element of compensation that is provided in the form of stock options. Stock options are time-based and vest annually over three years. Prior options granted on the one-year anniversary of the grant date.	Align the interests of our executives with the long-term interests of our stockholders; promote stock ownership and create significant incentives for executive retention.	In response to stockholder concerns, stock options now vest annually over three years instead of vesting in full on the one year anniversary of the grant date. A portion of the fiscal 2021 stock option grant was intended as partial payout of the fiscal 2021 annual bonus program.
Health and Welfare Benefits	Includes health, dental and life insurance.	Provide competitive health and welfare benefits at a reasonable cost and promote employee health.	No significant changes were made.
Retirement Plans	Includes a 401(k) plan. We do not provide pension arrangements or post-retirement health coverage for our executives or employees. We also do not provide any nonqualified defined contribution or other deferred compensation plans.	Provide an opportunity for employees to save and prepare financially for retirement.	No significant changes were made.
Perquisites	Includes use of a company-owned automobile. We do not provide any other perquisites to our executives.	Assist in the attraction and retention of executives.	No significant changes were made.

We describe each key element of our executive compensation program in more detail in the following pages, along with the compensation decisions made in fiscal 2021.

Base Salary. We provide a base salary for our named executive officers, which, unlike some of the other elements of our executive compensation program, is not subject to company or individual performance risk. We recognize the need for most executives to receive at least a portion of their total compensation in the form of a guaranteed base salary that is paid in cash regularly throughout the year.

We initially fix base salaries for our executives at a level that we believe enables us to hire and retain them in a competitive environment and to reward satisfactory individual performance and a satisfactory level of contribution to our overall business objectives. The Compensation Committee reviews base salaries for our named executive officers each year typically in August and generally recommends to the Board of Directors any increases for the following fiscal year in August. Any increases in base salaries are effective as of September 1.

The Compensation Committee's recommendations to the Board of Directors regarding the base salaries of our named executive officers are based on a number of factors, including: the executive's level of responsibility, prior experience and base salary for the prior year, the skills and experiences required by the position, length of service with NTIC, past individual performance, cost of living increases and other considerations the Compensation Committee deems relevant. The Compensation Committee also recognizes that in addition to the typical responsibilities and duties held by our executives, by virtue of their positions, our executives, due to the small number of our executives and employees, often possess additional responsibilities and perform additional duties that would be typically delegated to others in most organizations with additional personnel and resources.

Annualized base salary rates for fiscal 2020 and fiscal 2021 for our named executive officers were as follows:

Name	Fiscal 2020	Fiscal 2021	% Change From Fiscal 2020
G. Patrick Lynch	$ 435,393	$ 435,393	0.0%
Matthew C. Wolsfeld	321,812	321,812	0.0%

Both Mr. Lynch's and Mr. Wolsfeld's base salaries for fiscal 2021 remained the same as their respective base salaries for fiscal 2020 in light of the pending COVID-19 pandemic and the uncertainties as a result thereof at that time. The Board of Directors, upon recommendation of the Compensation Committee, recently set base salaries for fiscal 2022. Both Mr. Lynch's and Mr. Wolsfeld's base salaries for fiscal 2022 increased by 8.0% of their respective base salaries for fiscal 2021, which increase reflected the fact that base salaries were not increased during the prior fiscal year.

Annual Incentive Compensation. In addition to base compensation, we provide our named executive officers the opportunity to earn annual incentive compensation based on the achievement of certain company and individual related performance goals. Our annual bonus program, along with our stock ownership guidelines, directly aligns the interests of our executive officers and stockholders by providing an incentive for the achievement of key corporate and individual performance measures that are critical to the success of NTIC and linking a significant portion of each executive's annual compensation to the achievement of such measures.

Under the annual bonus plan for fiscal 2021, the total amount available under the bonus plan for all plan participants, including our two executive officers, as in past years, was a percent (25%) of NTIC's earnings before interest, taxes and other income, as adjusted to take into account amounts to be paid under the bonus plan and certain other adjustments (referred to as "Adjusted EBITOI"). For fiscal 2021, the other adjustments included amounts paid under NTIC's sales and management bonus plan and profit sharing plan and a portion of stock-based compensation expense. As in past years, for fiscal 2021, for each named executive officer participant, 75% of the amount of their individual bonus payout was determined based upon their individual allocation percentage of the total amount available under the bonus plan, and 25% of their individual payout was determined based upon their achievement of certain pre-established but more qualitative individual performance objectives.

A plan participant's individual allocation percentage of the total amount available under the bonus plan was based on the number of plan participants (which for fiscal 2021 was seven participants), the individual's annual base salary for fiscal 2021 and the individual's position and level of responsibility within NTIC. Individual allocation percentages ranged from approximately 6% to 24%. Mr. Lynch's individual allocation percentage for fiscal 2021 was 24% and Mr. Wolsfeld's individual allocation percentage for fiscal 2021 was 18% of a total management bonus pool of approximately $1,600,000.

Mr. Lynch's individual performance objectives for fiscal 2021 related primarily to NTIC's operations in China, India and other subsidiaries, management of pending litigation, improvement and maintenance of key joint venture relationships, improvement and maintenance of investors relations and retention and improvement of key personnel. Mr. Wolsfeld's individual performance objectives for fiscal 2021 related primarily to investor relations, implementation of cost control measures, financial oversight of NTIC's subsidiary in China, and management of NTIC's Human Resources department. In the case of both

Mr. Lynch and Mr. Wolsfeld, the Compensation Committee determined each executive achieved his individual performance objectives at a 100% achievement level.

Mr. Lynch received a total cash bonus of $376,539 for fiscal 2021 and Mr. Wolsfeld received a total bonus of $278,311 for fiscal 2021. Additionally, a portion of the annual bonus earned was paid in the form of a stock option grant on September 1, 2020.

The structure and material terms of our annual bonus plan for fiscal 2022 are similar to the annual bonus plan for fiscal 2021. As in past years, the payment of bonuses under the plan for fiscal 2022 will be discretionary and may be paid to participants in cash and/or shares of NTIC common stock.

Long-Term Equity-Based Incentive Compensation. The long-term equity-based incentive compensation component of our executive compensation program consists of annual option grants to our executives and certain other employees. The stock options are typically granted on the first business day of each fiscal year.

Accordingly, on September 1, 2020, NTIC granted Mr. Lynch an option to purchase 74,742 shares of common stock and Mr. Wolsfeld an option to purchase 55,244 shares of common stock. In response to stockholder concerns, these options vest annually over three years, as opposed to vesting in full on the first anniversary of the date of grant. More recently, on September 1, 2021, NTIC granted Mr. Lynch an option to purchase 32,540 shares of common stock and Mr. Wolsfeld an option to purchase 24,051 shares of common stock. These stock options vest annually over three years.

In determining the number of stock options to grant to our executives and other employees, the Board of Directors, upon recommendation of the Compensation Committee, considered the anticipated amount to be earned under the annual bonus plan and a portion of which it preferred to pay out in the form of a stock option grant and the total amount of stock-based compensation expense budgeted for such options and divided that amount by the grant date fair value per share to obtain a total option pool. Of the total option pool, the number of options to be granted to each executive and employee receiving options was then determined based on the individual's base salary as a percentage of the total aggregate base salaries of all executive and employees receiving option grants.

The Compensation Committee's primary objectives with respect to long-term equity-based incentive compensation, along with our stock ownership guidelines, are to align the interests of our executives with the long-term interests of our stockholders, promote stock ownership and create significant incentives for executive retention. Long-term equity-based incentives are intended to comprise a significant portion of each executive's compensation package, consistent with our executive compensation objective to align the interests of our executives with the interests of our stockholders. For fiscal 2021, equity-based compensation comprised over 33% of the total compensation for Mr. Lynch and Mr. Wolsfeld, assuming grant date fair value for equity awards. All equity-based compensation granted to our executives and other employees is granted under our then current stockholder-approved stock incentive plan.

The Compensation Committee uses stock options as opposed to other equity-based incentive awards since the Compensation Committee believes that options effectively incentivize executives to maximize company performance, as the value of awards is directly tied to an appreciation in the value of our common stock. Stock options also provide an effective retention mechanism because of vesting provisions. An important objective of our long-term equity-based incentive program is to strengthen the relationship between the long-term value of our common stock and the potential financial gain for our executives. Stock options provide recipients with the opportunity to purchase our common stock at a price fixed on the grant date regardless of future market price. The vesting of our stock options is time-based – over three years and previously upon the one-year anniversary of the date of grant. Our policy is to grant options only with an exercise price equal to or more than the fair market value of our common stock on the grant date. Under the terms of our incentive plan, fair market value is defined as the mean between the reported high and low sale prices of our common stock as of the grant date at the end of the regular trading session, as reported on the Nasdaq Global Market. Because stock options become valuable only if the share price increases above the exercise price and the option holder remains employed during the period required for the option to vest, they provide an incentive for an executive to remain employed. In addition, stock options link a portion of an employee's compensation to the interests of our stockholders by providing an incentive to achieve corporate goals and increase the market price of our common stock over the vesting period.

Through the grant of stock options, we seek to align the long-term interests of our executives with the long-term interests of our stockholders by creating a strong and direct link between compensation and long-term stockholder return. When our executives deliver returns to our stockholders, in the form of increases in our stock price or otherwise, stock options permit an increase in their compensation. We also believe that stock options enable our executives to achieve a meaningful equity ownership in NTIC and enable us to attract, retain and motivate our executives by maintaining competitive levels of total compensation.

As described in more detail below, in November 2021, the Board of Directors adopted stock ownership guidelines to align the interests of our executives with the interests of our stockholders, and under the terms of our insider trading policy, our executives are prohibited from engaging in any hedging or significant pledging of their shares of our common stock.

All Other Compensation. It is generally our policy not to extend significant perquisites to our executives that are not available to our employees generally. The only significant perquisite that we provide to our executives is the personal use of a company-owned vehicle. Our executives also receive benefits, which are also received by our other employees, including participation in the Northern Technologies International Corporation 401(k) Plan and health, dental and life insurance benefits. Under the 401(k) plan, all eligible participants, including our executives, may voluntarily request that we reduce his or her pre-tax compensation by up to 10% (subject to certain special limitations) and contribute such amounts to a trust. We typically contribute an amount equal to 50% of the first 7% of the amount that each participant contributed under this plan. We do not provide pension arrangements or post-retirement health coverage for our executives or employees. We also do not provide any nonqualified defined contribution or other deferred compensation plans.

Change in Control and Post-Termination Severance Arrangements

Change in Control Arrangements. To encourage continuity, stability and retention when considering the potential disruptive impact of an actual or potential corporate transaction, we have established change in control arrangements, including provisions in our stock incentive plans and written employment agreements with our executives. These arrangements are designed to incentivize our executives to remain with NTIC in the event of a change in control or potential change in control.

Under the terms of our stock incentive plans and the individual award documents provided to recipients of awards under those plans, all stock options become immediately vested and exercisable upon the completion of a change in control of NTIC. For more information, see "*—Potential Payments Upon Termination or Change in Control—Change in Control Arrangements*." Thus, the immediate vesting of stock options is triggered by the change in control, itself, and thus is known as a "single trigger" change in control arrangement. We believe these "single trigger" equity acceleration change in control arrangements provide important retention incentives during what can often be an uncertain time for executives. They also provide executives with additional monetary motivation to focus on and complete a transaction that the Board of Directors believes is in the best interests of our stockholders rather than to seek new employment opportunities. If an executive were to leave before the completion of the change in control, non-vested options held by the executive would terminate.

In addition, we have entered into employment agreements with our named executive officers to provide certain payments and benefits in the event of a change in control, which are payable only in the event their employment is terminated in connection with the change in control ("double-trigger" provisions). These change in control protections provide consideration to executives for certain restrictive covenants that apply following termination of employment and provide continuity of management in connection with a threatened or actual change in control transaction. If an executive's employment is terminated without "cause" or by the executive for "good reason" (as defined in the employment agreements) within 24 months following a change in control, the executive will be entitled to receive a lump sum payment equal to two times, in the case of the CEO, and one and one-half times, in the case of the CFO, his average total annual compensation for the two most recently completed fiscal years. The average total annual compensation will be determined based on the calculation used to determine total compensation in the Summary Compensation Table. Accordingly, it will not include equity gains; only, the grant date fair value of equity grants. Additionally, each of the CEO and CFO is eligible to receive a pro rata portion of the target bonus that the executive otherwise would have been eligible to receive under our bonus plan for the fiscal year during which the executive's employment is terminated, with such pro rata portion based on the number of completed months during the fiscal year that the executive was employed with NTIC. These arrangements, and a quantification of the payment and benefits provided under these arrangements, are described in more detail under "*—Potential Payments Upon Termination or Change in Control—Change in Control Arrangements*." Other than the immediate acceleration of equity-based awards, which we believe aligns our executives' interests with those of our stockholders by allowing executives to participate fully in the benefits of a change in control as to all of their equity, in order for a named executive officer to receive any other payments or benefits as a result of a change in control of NTIC, there must be a termination of the executive's employment, either by us without cause or by the executive for good reason. The termination of the executive's employment by the executive without good reason will not give rise to additional payments or benefits either in a change in control situation or otherwise. Thus, these additional payments and benefits will not just be triggered by a change in control, but also will require a termination event not within the control of the executive, and thus are known as "double trigger" change in control arrangements. As opposed to the immediate acceleration of stock options, we believe that other change in control payments and benefits should properly be tied to termination following a change in control, given the intent that these amounts provide economic security to ease the executive's transition into new employment.

We believe these change in control arrangements are an important part of our executive compensation program in part because they mitigate some of the risk for executives working in a smaller company where there is a meaningful risk that NTIC may be acquired. Change in control benefits are intended to attract and retain qualified executives who, absent these arrangements and in anticipation of a possible change in control of NTIC, might consider seeking employment alternatives to be less risky than remaining with NTIC through the transaction. We believe that relative to NTIC's overall value, our potential change in control benefits are relatively small. We also believe that the form and amount of these change in control benefits are fair and reasonable to both NTIC and our executives. The Compensation Committee reviews our change of control arrangements periodically to ensure that they remain necessary and appropriate.

Other Severance Arrangements. Each of our named executive officers is entitled to receive severance benefits upon certain other qualifying terminations of employment, other than a change in control, pursuant to the provisions of such executive's employment agreement. These severance arrangements are primarily intended to retain our executives and provide consideration to those executives for certain restrictive covenants that apply following termination of employment. Additionally, we entered into the employment agreements because they provide us valuable protection by subjecting the executives to restrictive covenants that prohibit the disclosure of confidential information during and following their employment and limit their ability to engage in competition with us or otherwise interfere with our business relationships following their termination of employment. For more information on our employment agreements and severance arrangements with our named executive officers, see the discussions below under "—*Summary Compensation—Employment Agreements*" and "—*Potential Payments Upon a Termination or Change in Control*."

We believe that the form and amount of these severance benefits are fair and reasonable to both NTIC and our executives. The Compensation Committee reviews our severance arrangements periodically to ensure that they remain necessary and appropriate.

Stock Ownership Guidelines

In November 2021, the Board of Directors adopted stock ownership guidelines that are intended to align the interests of our executive officers with those of our stockholders. The stock ownership guidelines for our executive officers are as follows:

Position	Guideline
Chief Executive Officer	6x annual base salary
Other Executive Officers	3x annual base salary

As of the date of this proxy statement, each of our executive officers required to meet the stock ownership guidelines had met such guideline.

Hedging and Pledging Policies

Our insider trading policy prohibits NTIC directors, officers, employees, consultants and their immediate family members, other household members and controlled entities from engaging in hedging or monetization transactions that hedge or offset, or are designed to hedge or offset, any decrease in the market value of NTIC securities, including, without limitation, prepaid variable forward contracts, equity swaps, collars and exchange funds. In addition, our insider trading policy limits the ability of the individuals listed above to pledge NTIC securities. NTIC securities may only be pledged in an insignificant manner if the individual has a compelling reason for the pledge and is able to demonstrate the financial capacity to repay the loan without resort to the pledged securities. The proposed transaction must be submitted at least two weeks prior to its proposed execution in order for the Chief Financial Officer to review and approve the transaction.

Clawback Policy

We have a clawback policy pursuant to which we may recover certain incentive compensation from current or former executive officers in the event a financial metric used to determine the vesting or payment of incentive compensation to an executive was calculated incorrectly or the executive engaged in egregious conduct that is substantially detrimental to NTIC.

Summary of Cash and Other Compensation

The table below provides summary information concerning all compensation awarded to, earned by or paid to named executive officers. G. Patrick Lynch, our President and Chief Executive Officer, serves as our principal executive officer, and Matthew C. Wolsfeld, our Chief Financial Officer and Corporate Secretary, serves as our principal financial officer. Mr. Lynch and Mr. Wolsfeld are the only two individuals who have been designated by our Board of Directors as "executive officers" of NTIC.

SUMMARY COMPENSATION TABLE – FISCAL 2021

Name and Principal Position	Fiscal Year	Salary	Option Awards[(1)]	Non-Equity Incentive Plan Compensation[(2)]	All Other Compensation[(3)]	Total
G. Patrick Lynch	2021	$ 435,392	$ 233,195	$ 376,539	$ 13,102	$ 1,058,228
President and Chief Executive Officer	2020	435,392	249,854	56,026	13,102	754,374
Matthew C. Wolsfeld	2021	321,812	172,362	278,311	12,875	785,360
Chief Financial Officer and Corporate Secretary	2020	321,812	184,675	41,410	12,875	560,772

(1) On September 1, 2020, each of the named executive officers was granted a stock option under the Northern Technologies International Corporation 2019 Stock Incentive Plan. We refer you to the information under the heading "*Compensation Review—Elements of Our Executive Compensation Program—Long-Term Equity-Based Incentive Compensation*" for a discussion of the option grants and their terms. The amounts reflected in the column entitled "Option Awards" for each officer represent the aggregate grant date fair value for the option awards, as computed in accordance with FASB ASC Topic 718. The grant date fair value is determined based on a Black-Scholes option pricing model. The grant date fair value per share for the options granted on September 1, 2020 was $7.29 and was determined using the following specific assumptions: risk free interest rate: 0.77%; expected life: 10.0 years; expected volatility: 45.4%; and expected dividend yield: 0%.

(2) The amounts reflected in the column entitled "Non-Equity Incentive Plan Compensation" reflect the cash amount of bonus earned by each of the officers in consideration for their fiscal 2021 and 2020 performance, respectively, but paid to such officers during fiscal 2022 and 2021, respectively. We refer you to the information under "*Compensation Review—Elements of Our Executive Compensation Program—Annual Incentive Compensation*" for a discussion of the factors taken into consideration by the Board of Directors, upon recommendation of the Compensation Committee, in determining the amount of bonus paid to each named executive officer.

(3) The amounts shown in the column entitled "All Other Compensation" for fiscal 2021 include the following with respect to each named executive officer:

Name	401(k) Match	Personal Use of Auto
G. Patrick Lynch	$ 8,750	$ 4,352
Matthew C. Wolsfeld	8,750	4,125

Outstanding Equity Awards at Fiscal Year End

The table set forth below provides information regarding stock options for each of our named executive officers that remained outstanding at August 31, 2021. Note that because of the grant date, the table set forth below does not reflect option grants on September 1, 2021. We did not have any equity incentive plan awards or stock awards outstanding at August 31, 2021. Share and per share data have been adjusted to reflect our two-for-one stock split that was effective June 28, 2019.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END—FISCAL 2021

	Option Awards			
Name	**Number of Securities Underlying Unexercised Options (#) Exercisable**	**Number of Securities Underlying Unexercised Options (#) Unexercisable(1)**	**Option Exercise Price ($)**	**Option Expiration Date**
G. Patrick Lynch....................	6,724	0	$ 5.125	11/15/2022
	13,450	0	5.125	11/15/2022
	16,650	0	5.125	11/15/2022
	11,610	0	7.35	08/31/2023
	10,488	0	10.05	08/31/2024
	14,574	0	7.43	08/31/2025
	16,072	0	6.70	08/31/2026
	11,704	0	9.18	08/31/2027
	27,596	0	18.23	08/31/2028
	58,651	0	10.80	08/31/2029
	0	74,742(2)	8.24	08/31/2030
Matthew C. Wolsfeld............	4,970	0	5.125	11/15/2022
	9,942	0	5.125	11/15/2022
	12,306	0	5.125	11/15/2022
	8,582	0	7.35	08/31/2023
	7,752	0	10.05	08/31/2024
	10,772	0	7.43	08/31/2025
	11,880	0	6.70	08/31/2026
	8,650	0	9.18	08/31/2027
	20,396	0	18.23	08/31/2028
	43,351	0	10.80	08/31/2029
	0	55,244(2)	8.24	08/31/2030

(1) All options described in this table were granted under the Northern Technologies International Corporation 2019 Stock Incentive Plan or the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan. Under these plans, upon the occurrence of a change in control, the unvested and unexercisable options will be accelerated and become fully vested and immediately exercisable as of the date of the change in control. For more information, we refer you to the discussion below under "—*Stock Incentive Plans*."

(2) These options vested over a three-year period, with one-third of the underlying shares vesting on each of September 1, 2021, 2022 and 2023 so long as the individual remains an employee of NTIC as of such date.

Stock Incentive Plans

We have two stock incentive plans under which stock options are currently outstanding: the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan and the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan. However, future stock incentive awards may only be granted under the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan. Under the terms of the 2019 plan, our named executive officers, in addition to other employees and individuals, are eligible to receive stock-based compensation awards, such as stock options, stock appreciation rights, restricted stock awards, restricted stock units, performance awards, and other stock-based awards. To date, only incentive and non-statutory stock options have been granted under the plan. The plan contains both an overall limit on the number of shares of our common stock that may be issued, as well as individual limits for non-employee directors and other grant limits.

Incentive stock options must be granted with a per share exercise price equal to at least the fair market value of a share of our common stock on the date of grant. For purposes of the plan, the fair market value of our common stock is the mean between the reported high and low sale price of our common stock, as reported by the Nasdaq Global Market. We generally set the per share exercise price of all stock options granted under the plan at an amount equal to the fair market value of a share of our common stock on the date of grant.

Except in connection with certain specified changes in our corporate structure or shares, the Board of Directors or Compensation Committee may not, without prior approval of our stockholders, seek to effect any re-pricing of any previously granted, "underwater" option or stock appreciation right by amending or modifying the terms of the underwater option or stock appreciation right to lower the exercise price, cancelling the underwater option or stock appreciation right in exchange for cash, replacement options or stock appreciation rights having a lower exercise price, or other incentive awards, or repurchasing the underwater options or stock appreciation rights and granting new incentive awards under the plan. For purposes of the plan, an option or stock appreciation right is deemed to be "underwater" at any time when the fair market value of our common stock is less than the exercise price.

We generally provide for the vesting of stock options in equal annual installments over a three-year period commencing on the one-year anniversary of the date of grant for employees and in full on the one-year anniversary of the date of grant for directors. We generally provide for option terms of ten years.

Optionees may pay the exercise price of stock options in cash, except that the Compensation Committee may allow payment to be made (in whole or in part) by (1) using a broker-assisted cashless exercise procedure pursuant to which the optionee, upon exercise of an option, irrevocably instructs a broker or dealer to sell a sufficient number of shares of our common stock or loan a sufficient amount of money to pay all or a portion of the exercise price of the option and/or any related withholding tax obligations and remit such sums to us and directs us to deliver stock certificates to be issued upon such exercise directly to such broker or dealer; or (2) using a cashless exercise procedure pursuant to which the optionee surrenders to us shares of our common stock either underlying the option or that are otherwise held by the optionee.

Under the terms of the plan, unless otherwise provided in a separate agreement or amended in connection with an optionee's termination of employment, if a named executive officer's employment or service with NTIC terminates for any reason, the unvested portion of the options held by such officer will immediately terminate, and the executive's right to exercise the then vested portion of the options will:

- immediately terminate if the executive's employment or service relationship with NTIC terminates for "cause";
- continue for a period of 12 months if the executive's employment or service relationship with NTIC terminates as a result of the executive's death, disability or retirement; or
- continue for a period of three months if the executive's employment or service relationship with NTIC terminates for any reason, other than for cause or upon death, disability or retirement.

As set forth in the plan, the term “cause” is as defined in any employment or other agreement or policy applicable to the named executive officer or, if no such agreement or policy exists, means (i) dishonesty, fraud, misrepresentation, embezzlement or other act of dishonesty with respect to us or any subsidiary, (ii) any unlawful or criminal activity of a serious nature, (iii) any intentional and deliberate breach of a duty or duties that, individually or in the aggregate, are material in relation to the overall duties, or (iv) any material breach of any employment, service, confidentiality or non-compete agreement entered into with us or any subsidiary.

Under the terms of the plan, if a participant is determined by the committee to have taken any action that would constitute “cause” or an “adverse action” during or within one year after the termination of the participant’s employment or other service with NTIC, all rights of the participant under the plan and any incentive award agreements then held by the participant will terminate and be forfeited without notice of any kind, and the committee may rescind the exercise, vesting or issuance of, or payment in respect of, any incentive awards of the participant that were exercised, vested or issued, or as to which such payment was made, and require the participant to pay any amount received or the amount of any gain realized as a result of such rescinded exercise, vesting, issuance or payment. Additionally, as applicable, we may defer the exercise of any option or stock appreciation right for a period of up to six months after receipt of a participant’s written notice of exercise or the issuance of share certificates upon the vesting of any incentive award for a period of up to six months after the date of such vesting in order for the committee to make any determination as to the existence of cause or an adverse action. An “adverse action” includes any of the following actions or conduct that the committee determines to be injurious, detrimental, prejudicial or adverse to our interests: (i) disclosing any confidential information of NTIC or any subsidiary to any person not authorized to receive it; (ii) engaging, directly or indirectly, in any commercial activity that in the judgment of the committee competes with our business or the business of any of our subsidiaries; or (iii) interfering with our relationships or the relationships of our subsidiaries and our and their respective employees, independent contractors, customers, prospective customers and vendors.

As described in more detail under “*—Post-Termination Severance and Change in Control Arrangements*” if there is a change in control of NTIC, then, under the terms of agreements evidencing options granted to our named executive officers and other employees under the plan, all outstanding options will become immediately exercisable in full and will remain exercisable for the remainder of their terms, regardless of whether the executive to whom such options have been granted remains in the employ or service of us or any of our subsidiaries.

Post-Termination Severance and Change in Control Arrangements

We have entered into employment agreements with G. Patrick Lynch, NTIC’s President and Chief Executive Officer, and Matthew C. Wolsfeld, NTIC’s Chief Financial Officer and Corporate Secretary. Although each executive’s employment with NTIC remains “at will,” the employment agreements provide each executive with certain severance benefits in the event the executive’s employment is terminated by us without “cause” or by the executive for “good reason” and the executive executes and does not revoke a separation agreement and a release of all claims.

If an executive’s employment is terminated by us without “cause” or by the executive for “good reason,” in addition to any accrued but unpaid salary and benefits through the date of termination, the executive will be entitled to a severance cash payment from us in an amount equal to two times (one and one-half times, in the case of Mr. Wolsfeld) the executive’s average total annual compensation for the two most recently completed fiscal years. The average total annual compensation will be determined based on the calculation used to determine total compensation in the Summary Compensation Table. Accordingly, it will not include equity gains; only, the grant date fair value of equity grants. Additionally, the CEO and

CFO are eligible to receive a pro rata portion of the target bonus that the executive otherwise would have been eligible to receive under our bonus plan for the fiscal year during which the executive's employment is terminated, with such pro rata portion based on the number of complete months during the fiscal year that the executive was employed with NTIC. The severance payment will be paid in several installments in the form of salary continuation in accordance with our normal payroll practices over a 24-month period (18-month period, in the case of Mr. Wolsfeld). If, however, the termination event occurs within 24 months after a change in control of NTIC, the severance payment will be paid in one lump sum. If the executive is eligible for and timely elects continued coverage under our group medical plan, group dental plan and/or group vision plan pursuant to Section 4980B of the Internal Revenue Code of 1986, as amended (referred to as "COBRA"), for each of the first 18 months of the COBRA continuation period, we also will reimburse the executive in an amount equal to the difference between the amount the executive pays for such COBRA continuation coverage each month and the amount paid by a full-time active employee each month for the same level of coverage elected by the executive. In addition, all outstanding and unvested options to purchase shares of our common stock and other stock incentive awards granted to the executive under our stock incentive plan will become immediately vested and exercisable.

Under the employment agreements, "cause" is defined as (i) the executive's material breach of any of the executive's obligations under the employment agreement or the executive's willful and continued failure or refusal to perform his duties, responsibilities and obligations as an executive officer of NTIC, for reasons other than the executive's disability, to the satisfaction of the Board of Directors; (ii) the executive's commission of an act of dishonesty, fraud, embezzlement, misappropriation, or intentional and deliberate injury or material breach of fiduciary duty, or material breach of the duty of loyalty related to or against us or our business, or any unlawful or criminal activity of a serious nature involving any felony, or conviction by a court of competent jurisdiction of, or pleading guilty or nolo contendere to, any felony or any crime involving moral turpitude; or (iii) the existence of any court order or settlement agreement prohibiting the executive's continued employment with NTIC.

"Good reason" is defined as (i) a material diminution in the executive's authority, duties or responsibilities; (ii) a material diminution in the executive's annual base salary; (iii) a material change in the geographic location at which we require the executive to provide services, except for travel reasonably required in the performance of the executive's responsibilities; or (iv) any action or inaction that constitutes a material breach by us of the employment agreement.

"Change in control" has the meaning assigned to such term in our stock incentive plan as in effect from time to time to the extent such change in control is a "change of control event" as defined under Code Section 409A and applicable Internal Revenue Service regulations. Under the terms of our stock incentive plan, a "change in control" means:

- the sale, lease, exchange or other transfer of all or substantially all of our assets to a corporation that is not controlled by us;
- the approval by our stockholders of any plan or proposal for our liquidation or dissolution;
- certain merger or business combination transactions;
- more than 40% of our outstanding voting shares are acquired by any person or group of persons who did not own any shares of common stock on the effective date of the plan; and
- certain changes in the composition of our Board of Directors.

If a change in control of NTIC had occurred on August 31, 2021, the number of options indicated in the table below held by each of our named executive officers would have been automatically accelerated and exercisable. The estimated value of the automatic acceleration of the vesting of unvested stock options held by a named executive officer as of August 31, 2021 is also indicated in the table below and is based on the difference between: (i) the market price of the shares of our common stock underlying the unvested stock options held by such officer as of August 31, 2021 (based on the closing sale price of our common stock on the last trading day of fiscal 2021, August 31, 2021 — $16.67), and (ii) the exercise price of the options.

Executive Officer	Number of Unvested Options Subject to Automatic Acceleration	Estimated Value of Automatic Acceleration of Vesting
G. Patrick Lynch............	74,742	$ 630,075
Matthew C. Wolsfeld......	55,244	465,707

If the employment of our named executive officers was terminated as of August 31, 2021, they would have been entitled to the following compensation and benefits, depending upon the applicable triggering event:

		Triggering Event				
Executive Officer	Type of Payment	Voluntary/ For Cause Termination	Involuntary Termination without Cause	Qualifying Change in Control Termination	Death	Disability
G. Patrick Lynch..........	Cash severance[1]	$ 0	$1,814,657	$1,814,657	$ 0	$ 0
	Benefits continuation[2]	0	29,940	29,940	0	0
	Equity acceleration[3]	0	630,075	630,075	0	0
	Total:	$ 0	$2,474,672	$2,474,672	$ 0	$ 0
Matthew C. Wolsfeld...	Cash severance[1]	$ 0	$1,010,738	$1,010,738	$ 0	$ 0
	Benefits continuation[2]	0	29,940	29,940	0	0
	Equity acceleration[3]	0	465,707	465,707	0	0
	Total:	$ 0	$1,506,385	$1,506,385	$ 0	$ 0

(1) Represents the value of two times (one and one-half times, in the case of Mr. Wolsfeld) the executive's average total annual compensation for the two most recently completed fiscal years. Does not include a pro rata portion of the target bonus that the executive otherwise would have been eligible to receive under our bonus plan for the fiscal year during which the executive's employment is terminated, since in light of the assumed termination date of August 31, 2021, the last day of the fiscal year, such bonus would have been earned.

(2) Represents the value of medical, dental and vision benefit continuation for each executive and their family for 18 months following the executive's termination.

(3) Represents the value of acceleration of all unvested shares that are subject to options, based on the difference between the closing sale price of $16.67 per share as of the last trading day of fiscal 2021, August 31, 2021, and the exercise price.

Compensation Committee Interlocks and Insider Participation

No member of the Compensation Committee has served as one of our officers or employees at any time. Except as otherwise disclosed in this proxy statement, no member of the Compensation Committee has had any relationship with NTIC requiring disclosure under Item 404 of Regulation S-K under the Exchange Act. None of our executive officers has served as a director, or member of the compensation committee (or other committee serving an equivalent function), of an organization that has an executive officer also serving as a member of our Board of Directors or Compensation Committee.

RELATED PERSON RELATIONSHIPS AND TRANSACTIONS

Introduction

Below under "—*Description of Related Party Transactions*" is a description of transactions that have occurred during the past fiscal year, or any currently proposed transactions, to which we were or are a participant and in which:

- the amounts involved exceeded or will exceed the lesser of: $120,000 or one percent (1%) of the average of our total assets at year end for the last two completed fiscal years; and
- a related person (including any director, director nominee, executive officer, holder of more than 5% of our common stock or any member of their immediate family) had or will have a direct or indirect material interest.

These transactions are referred to as "related party transactions."

Procedures Regarding Approval of Related Party Transactions

As provided in our Corporate Governance Guidelines, the Audit Committee will review, approve or ratify reportable related party transactions by use of the following procedures:

- NTIC's Chief Financial Officer, with the assistance of NTIC's legal counsel, will evaluate the disclosures provided in the director and officer questionnaires and from data obtained from NTIC's records for potential related person transactions.
- Management will periodically, but no less than annually, report to the Audit Committee on all related person transactions that occurred since the beginning of the prior fiscal year or that it believes will occur in the next year. Such report should include information as to (i) the related person's relationship to NTIC and interest in the transaction; (ii) the material facts of the transaction; (iii) the benefits to NTIC of the transaction; and (iv) an assessment of whether the transaction is (to the extent applicable) in the ordinary course of business, at arm's length, at prices and on terms customarily available to unrelated third party vendors or customers generally, and whether the related party had any direct or indirect personal interest in, or received any personal benefit from, such transaction.
- Taking into account the factors listed above, and such other factors and information as the Audit Committee may deem appropriate, the Audit Committee will determine whether or not to approve or ratify (as the case may be) each related party transaction so identified.
- Transactions in the ordinary course of business, between NTIC and an unaffiliated corporation of which a non-employee director of NTIC serves as an officer, that meet the below criteria are deemed conclusively pre-approved:
    - at arm's length;
    - at prices and on terms customarily available to unrelated third party vendors or customers generally;
    - in which the non-employee director had no direct or indirect personal interest, nor received any personal benefit; and
    - in amounts that are not material to NTIC's business or the business of such unaffiliated corporation.

Description of Related Party Transactions

Please see "*Director Compensation*" and "*Executive Compensation*" for information regarding a consulting agreement we have with one of our current directors and the other compensation arrangements with our directors and executive officers.

G. Patrick Lynch is the President and Chief Executive Officer of NTIC. Inter Alia Holding Company owns 13.2% of the total voting power of NTIC. According to a Schedule 13D/A filed with the SEC on October 22, 2019, Inter Alia Holding Company is an entity of which Mr. Lynch is a 47% stockholder. Mr. Lynch shares equal voting and dispositive power over such shares with three other members of his family. Inter Alia Holding Company's address is 23205 Mercantile Road, Beachwood, Ohio 44122.

We have entered into agreements with all of our directors and executive officers under which we are required to indemnify them against expenses, judgments, penalties, fines, settlements and other amounts actually and reasonably incurred, including expenses of a derivative action, in connection with an actual or threatened proceeding if any of them may be made a party because he or she is or was one of our directors or executive officers. We will be obligated to pay these amounts only if the director or executive officer acted in good faith and in a manner that he or she reasonably believed to be in or not opposed to our best interests. With respect to any criminal proceeding, we will be obligated to pay these amounts only if the director or executive officer had no reasonable cause to believe his or her conduct was unlawful. The indemnification agreements also set forth procedures that will apply in the event of a claim for indemnification.

NTIC has not identified any arrangements or agreements relating to compensation provided by a third party to NTIC's directors or director nominees in connection with their candidacy or board service as required to be disclosed pursuant to Nasdaq Rule 5250(b)(3).

STOCKHOLDER PROPOSALS AND DIRECTOR NOMINATIONS FOR 2023 ANNUAL MEETING OF STOCKHOLDERS

Stockholder Proposals for 2023 Annual Meeting

Stockholders who, in accordance with Rule 14a-8 under the Exchange Act, wish to present proposals for inclusion in the proxy materials relating to the 2023 Annual Meeting of Stockholders must submit their proposals so that they are received by us at our principal executive offices no later than the close of business on August 8, 2022, unless the date of the meeting is delayed by more than 30 calendar days. The proposals must satisfy the requirements of the proxy rules promulgated by the SEC and as the rules of the SEC make clear, simply submitting a proposal does not guarantee that it will be included.

Any other stockholder proposals to be presented at the 2023 Annual Meeting of Stockholders (other than a matter brought pursuant to SEC Rule 14a-8) must be given in writing to our Corporate Secretary and must be delivered to or mailed to and received at our principal executive offices not less than 90 days nor more than 120 days prior to the anniversary date of the 2023 Annual Meeting of Stockholders; provided, however, that in the event that the 2023 Annual Meeting of Stockholders is not held within 30 days before or after such anniversary date, notice by the stockholder to be timely must be received not later than the close of business on the 10th day following the day on which such notice of the date of the annual meeting was mailed or such public disclosure was made, whichever first occurs. The proposal must contain specific information required by our Amended and Restated Bylaws, a copy of which may be obtained by writing to our Corporate Secretary. If a proposal is not timely and properly made in accordance with the procedures set forth in our Amended and Restated Bylaws, it will be defective and may not be brought before the meeting. If the proposal is nonetheless brought before the meeting and the Chairman of the meeting does not exercise the power and duty to declare the proposal defective, the persons named in the proxy may use their discretionary voting with respect to the proposal.

Director Nominations for 2023 Annual Meeting

In accordance with procedures set forth in our Bylaws, NTIC stockholders may propose nominees for election to the Board of Directors only after providing timely written notice to our Corporate Secretary. To be timely, a stockholder's notice to the Corporate Secretary must be delivered to or mailed to and received at NTIC's principal executive offices not less than 90 days nor more than 120 days prior to the anniversary date of the immediately preceding annual meeting; provided, however, that in the event that the annual meeting with respect to which such notice is to be tendered is not held within 30 days before or after such anniversary date, notice by the stockholder to be timely must be received not later than the close of business on the 10th day following the day on which such notice of the date of the meeting was mailed or public disclosure was made, whichever first occurs. The notice must set forth, among other things:

- the nominee's name, age, business address, residence address and record address;
- the nominee's principal occupation or employment;
- the class and number of shares of NTIC capital stock which are beneficially owned by the nominee;
- signed consent to serve as a director of NTIC; and
- any other information concerning the nominee required under the rules of the SEC in a proxy statement soliciting proxies for the election of directors.

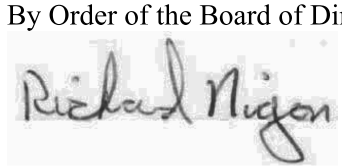
Submissions must be made by mail, courier or personal delivery. E-mailed submissions will not be considered. The Nominating and Corporate Governance Committee will consider only those stockholder recommendations whose submissions comply with the procedural requirements set forth in NTIC's Bylaws. The Nominating and Corporate Governance Committee will evaluate candidates recommended by stockholders in the same manner as those recommended by others.

COPIES OF FISCAL 2021 ANNUAL REPORT

We have sent or made electronically available to each of our stockholders a copy of our annual report on Form 10-K (without exhibits) for the fiscal year ended August 31, 2021. The exhibits to our Form 10-K are available by accessing the SEC's EDGAR filing database at *www.sec.gov*. We will furnish a copy of any exhibit to our Form 10-K upon receipt from any such person of a written request for such exhibits upon the payment of our reasonable expenses in furnishing the exhibits. This request should be sent to: Northern Technologies International Corporation, 4201 Woodland Road, Circle Pines, Minnesota 55014, Attention: Stockholder Information.

Your vote is important. Whether or not you plan to attend the Annual Meeting in person, vote your shares of NTIC common stock by the Internet or telephone, or request a paper proxy card to sign, date and return by mail so that your shares may be voted.

By Order of the Board of Directors,



Richard J. Nigon
Chairman of the Board

December 6, 2021
Circle Pines, Minnesota

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended August 31, 2021

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ________________ to __________________

Commission file number 001-11038

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**41-0857886**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4201 Woodland Road **P.O. Box 69** **Circle Pines, Minnesota**	**55014**
(Address of principal executive offices)	(Zip Code)

(763) 225-6600

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value $0.02 per share	NTIC	Nasdaq Global Market

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☒

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES ☐ NO ☒

The aggregate market value of the registrant's common stock, excluding shares beneficially owned by affiliates, computed by reference to the closing sales price at which the common stock was last sold as of February 26, 2021 (the last business day of the registrant's second fiscal quarter) as reported by the Nasdaq Global Market on that date was approximately $123.0 million.

As of November 15, 2021, 9,187,446 shares of common stock of the registrant were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates by reference information (to the extent specific sections are referred to herein) from the registrant's Proxy Statement for its 2022 Annual Meeting of Stockholders to be held January 21, 2022.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION

ANNUAL REPORT ON FORM 10-K
FISCAL YEAR ENDED AUGUST 31, 2021

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This annual report on Form 10-K contains certain forward-looking statements that are within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by those sections. For more information, see "Part I. Item 1. Business – Forward-Looking Statements."

As used in this report, references to "NTIC," the "Company," "we," "our," or "us," unless the context otherwise requires, refer to Northern Technologies International Corporation and its wholly-owned and majority-owned subsidiaries, all of which are consolidated on NTIC's consolidated financial statements.

As used in this report, references to: (1) "NTIC China" refer to NTIC's wholly-owned subsidiary in China, NTIC (Shanghai) Co., Ltd.; (2) "NTI Europe" refer to NTIC's wholly-owned subsidiary in Germany, NTIC Europe GmbH; (3) "Zerust Mexico" refer to NTIC's wholly-owned subsidiary in Mexico, ZERUST-EXCOR MEXICO, S. de R.L. de C.V; (4) "Zerust Brazil" refer to NTIC's majority-owned Brazilian subsidiary, Zerust Prevenção de Corrosão S.A.; (5) "Harita-NTI" refer to NTIC's wholly-owned subsidiary in India effective as of September 1, 2021, Harita-NTI Limited; (6) "Natur-Tec India" refer to NTIC's majority-owned subsidiary in India, Natur-Tec India Private Limited; (7) "Natur Tec Lanka" refer to NTIC's majority-owned subsidiary in Sri Lanka, Natur Tec Lanka (Pvt) Ltd and (8) "NTI Asean" refer to NTIC's majority-owned holding company subsidiary, NTI Asean LLC, which holds investments in certain entities that operate in the Association of Southeast Asian Nations (ASEAN) region, including the following countries: Indonesia, South Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand and Vietnam.

NTIC's consolidated financial statements do not include the accounts of any of its joint ventures. Except as otherwise indicated, references in this report to NTIC's joint ventures do not include any of NTIC's wholly-owned or majority-owned subsidiaries.

As used in this report, references to "EXCOR" refer to NTIC's joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH.

All trademarks, trade names, or service marks referred to in this report are the property of their respective owners.

PART I

Item 1. BUSINESS

Overview

Northern Technologies International Corporation (NTIC) develops and markets proprietary, environmentally beneficial products and services in over 65 countries either directly or via a network of subsidiaries, joint ventures, independent distributors, and agents. NTIC's primary business is corrosion prevention marketed mainly under the ZERUST® brand. NTIC has been selling its proprietary ZERUST® products and services to the automotive, electronics, electrical, mechanical, military, and retail consumer markets for over 45 years and, in recent years, has targeted and expanded into the oil and gas industry. NTIC also markets and sells a portfolio of bio-based and certified compostable (fully biodegradable) polymer resin compounds and finished products under the Natur-Tec® brand. These products are intended to reduce NTIC's customers' carbon footprint and provide environmentally sound waste disposal options.

NTIC's ZERUST® rust and corrosion inhibiting products include plastic and paper packaging, liquids, coatings, rust removers, cleaners, and diffusers as well as engineered solutions designed specifically for the oil and gas industry. NTIC also offers worldwide, on-site, technical consulting for rust and corrosion prevention issues. NTIC's technical service consultants work directly with the end users of NTIC's ZERUST® rust and corrosion inhibiting products to analyze their specific needs and develop systems to meet their performance requirements. In North America, NTIC sells its ZERUST® corrosion prevention solutions through a network of independent distributors and agents supported by a direct sales force.

Internationally, NTIC sells its ZERUST® corrosion prevention solutions through its wholly-owned subsidiary in China, NTIC (Shanghai) Co., Ltd. (NTIC China), its majority-owned joint venture holding company for NTIC's joint venture investments in the Association of Southeast Asian Nations (ASEAN) region, NTI Asean LLC (NTI Asean), certain majority-owned and wholly-owned subsidiaries, and joint venture arrangements in North America, Europe, and Asia. Effective as of September 1, 2021, NTIC purchased the remaining ownership interest in Harita-NTI Limited (Harita-NTI) and now sells its ZERUST products in India through this wholly-owned subsidiary. NTIC also sells products directly to its European joint venture partners through its wholly-owned subsidiary in Germany, NTIC Europe GmbH (NTI Europe).

One of NTIC's strategic initiatives is to expand into and penetrate other markets for its ZERUST® corrosion prevention technologies. Consequently, for the past several years, NTIC has focused significant sales and marketing efforts on the oil and gas industry, as the infrastructure that supports that industry is typically constructed using metals that are highly susceptible to corrosion. NTIC believes that its ZERUST® corrosion prevention solutions will minimize maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure, and reduce the risk of environmental pollution due to leaks caused by corrosion.

NTIC markets and sells its ZERUST® rust and corrosion prevention solutions to customers in the oil and gas industry in a continuously increasing number of countries either directly, through its subsidiaries, or through its joint venture partners and other strategic partners. The sale of ZERUST® corrosion prevention solutions to customers in the oil and gas industry typically involves long sales cycles, often including multi-year trial periods with each customer and a slow integration process thereafter.

Natur-Tec® bio-based and compostable plastics are manufactured using NTIC's patented and/or proprietary technologies and are intended to replace conventional petroleum-based plastics. The Natur-Tec® biopolymer resin compound portfolio includes formulations that have been optimized for a variety of applications, including blown-film extrusion, sheet/profile extrusion, injection molding, extrusion coating/lamination and engineered plastics. These resin compounds are certified to be fully biodegradable in a commercial composting environment and are currently being used to produce finished products, including can liners, shopping and grocery bags, lawn and leaf bags, branded apparel packaging bags and accessories, and various foodservice items, such as disposable cutlery, drinking straws, food-handling gloves, and coated paper products. In North America, NTIC markets its Natur-Tec® resin compounds and finished products primarily through a network of regional and national distributors as well as independent agents. NTIC continues to see significant opportunities for finished bioplastic products and, therefore, continues to strengthen and expand its North American distribution network for finished Natur-Tec® bioplastic products.

Internationally, NTIC sells its Natur-Tec® resin compounds and finished products both directly and through its NTIC China wholly-owned subsidiary as well as its Natur-Tec India and Natur-Tec Lanka majority-owned subsidiaries in India and Sri Lanka, and through distributors and certain joint ventures.

Impact of COVID-19 Pandemic and Worldwide Supply Chain Disruptions

Beginning last year, the novel coronavirus (COVID-19) pandemic negatively impacted the global economy, disrupted global supply chains, created significant volatility and disruption in financial markets and resulted in lockdowns. As a result of the COVID-19 pandemic and related government mandated restrictions on the Company's business, as well as the businesses of its joint ventures, customers and suppliers, disruption to the Company's business and the manufacture and sale of its products and services has occurred. In fiscal year 2021, the Company was impacted by shipping issues, including freight container shortages, shipping delays, and increased costs, and supply chain issues, including longer lead times and raw material cost increases. These impacts were largely a result of disruptions caused by the COVID-19 pandemic and the uptick in demand due to the ongoing global economic recovery. While there has been some recovery in the global economy and financial markets due in part to the easing of government mandated restrictions due to lower rates of infection, these restrictions may be reinstated if rates of infection continue to rise due to the Delta variant or subsequent variants of COVID-19, which could cause the COVID-19 pandemic to continue to have a material adverse effect on NTIC's business, operating results and financial condition in fiscal 2022.

Worldwide supply chain disruptions, which were initially brought about by the impact of the COVID-19 pandemic, have persisted despite the recovery in the global economy and financial markets, and these issues are expected to continue in fiscal 2022. In fiscal 2021, NTIC experienced longer lead times for raw materials, was forced to find new suppliers of certain raw materials, and experienced raw material cost increases compared to prior fiscal years. Additionally, NTIC experienced significantly longer shipping times and significant price increases per shipping container compared to prior fiscal years due to ocean freight capacity issues resulting from increased demand for shipping and reduced capacity and equipment. These and other issues resulting from worldwide supply chain disruptions are expected to continue in fiscal 2022 and could continue to have a material adverse effect on NTIC's business, operating results and financial condition. The precise financial impact and duration, however, cannot be reasonably estimated at this time.

NTIC's Subsidiaries and Joint Venture Network

NTIC has ownership interests in 10 operating subsidiaries in North America, South America, Europe, and Asia. The following table sets forth a list of NTIC's operating subsidiaries as of November 15, 2021, the country in which the subsidiary is organized, and NTIC's ownership percentage in each subsidiary:

Subsidiary Name	Country	NTIC Percent (%) Ownership
NTIC (Shanghai) Co., Ltd	China	100%
NTI Asean LLC	United States	60%
Zerust Prevenção de Corrosão S.A.	Brazil	85%
ZERUST-EXCOR MEXICO, S. de R.L. de C.V	Mexico	100%
Harita-NTI Limited	India	100%
Natur-Tec India Private Limited	India	75%
Natur Tec Lanka (Pvt) Ltd	Sri Lanka(1)	75%
NTIC Europe GmbH	Germany	100%
Zerust Singapore Pte Ltd	Singapore(2)	60%
Zerust Vietnam Co. Ltd	Vietnam(2)	60%

(1) Natur Tec Lanka (Pvt) Ltd. is 100% owned by Natur-Tec India Private Limited and, therefore, indirectly owned by NTIC.
(2) Zerust Singapore Pte Ltd and Zerust Vietnam Co. Ltd are 100% owned by NTI Asean LLC and, therefore, indirectly owned by NTIC.

The results of these subsidiaries are fully consolidated in NTIC's consolidated financial statements, except that Harita-NTI Limited only became a wholly owned subsidiary as of September 1, 2021; and therefore, its results of operations are not included in NTIC's consolidated financial statements included in this report as the investment and financial results of this joint venture are consolidated utilizing the equity method of accounting.

NTIC participates in 18 active joint venture arrangements in North America, Europe, and Asia. Each of these joint ventures generally manufactures and markets products in the geographic territory to which it is assigned. While most of NTIC's joint ventures exclusively sell rust and corrosion inhibiting products, some of the joint ventures also sell NTIC's Natur-Tec® resin compounds. NTIC has historically funded its investments in joint ventures with cash generated from operations.

The following table sets forth a list of NTIC's operating joint ventures as of November 15, 2021, the country in which the joint venture is organized, and NTIC's ownership percentage in each joint venture:

Joint Venture Name	Country	NTIC Percent (%) Ownership
TAIYONIC LTD.	Japan	50%
ACOBAL SAS	France	50%
EXCOR KORROSIONSSCHUTZ – TECHNOLOGIEN UND PRODUKTE GMBH	Germany	50%
ZERUST AB	Sweden	50%
MOSTNIC-ZERUST	Russia	50%
ZERUST OY	Finland	50%
ZERUST (U.K.) LTD.	United Kingdom	50%
EXCOR-ZERUST S.R.O.	Czech Republic	50%
EXCOR SP. Z.O.O.	Poland	50%
ZERUST A.Ş.	Turkey	50%
ZERUST CONSUMER PRODUCTS, LLC	United States	50%
ZERUST – DNEPR	Ukraine	50%
KOREA ZERUST CO., LTD.	South Korea (1)	30%
ZERUST-NIC (TAIWAN) CORP.	Taiwan (1)	30%
PT. CHEMINDO – NTIA	Indonesia (1)	30%
ZERUST SPECIALTY TECH CO. LTD.	Thailand (1)	30%
CHONG WAH-NTIA SDN. BHD.	Malaysia (1)	30%
NTIA ZERUST PHILIPPINES, INC.	Philippines (1)	30%

(1) Indirect ownership interest through NTI Asean.

NTIC receives funds from its joint ventures as fees received for services that NTIC provides to its joint ventures and as dividend distributions. The fees for services provided to joint ventures are determined based on either a flat fee or a percentage of sales depending on local laws and tax regulations. With respect to NTIC's joint venture in Germany (EXCOR), NTIC recognizes an agreed upon quarterly fee for services. NTIC recognizes equity income from each joint venture based on the overall profitability of the joint venture. Such profitability is subject to variability from quarter to quarter, which, in turn, subjects NTIC's earnings to variability from quarter to quarter. The profits of each joint venture are shared by the respective joint venture owners in accordance with their respective ownership percentages. NTIC typically directly or indirectly owns 50% or less of each of its joint venture entities and, thus, does not control the decisions of these entities regarding whether dividends are paid and, if so, what amount is paid in a given year. The payment of a dividend by an entity is determined by a joint vote of the owners and is not at the sole discretion of NTIC.

As of August 31, 2021, Harita-NTI Limited was a joint venture and consolidated using the equity method of accounting. Harita-NTI Limited only became a wholly owned subsidiary as of September 1, 2021.

NTIC accounts for the investments and financial results of its joint ventures in its financial statements utilizing the equity method of accounting.

NTIC considers EXCOR to be individually significant to NTIC's consolidated assets and income as of August 31, 2021. NTIC considers EXCOR, ACOBAL SAS, ZERUST OY, ZERUST SPECIALTY TECH CO. LTD. and its former joint venture, Harita-NTI Limited, to be individually significant to NTIC's consolidated assets and income as of August 31,

2020. Therefore, NTIC provides certain additional information regarding these joint ventures in the notes to NTIC's consolidated financial statements and in this section of this report.

For more information regarding NTIC's joint ventures and their effect on NTIC's operating results, see NTIC's consolidated financial statements in "*Part II. Item 8. Financial Statements and Supplementary Data*" and "*Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations*" of this report.

Products

NTIC derives revenues directly and/or indirectly through its subsidiaries and joint ventures from two reportable business segments based on products sold, customer base, and distribution center: ZERUST® corrosion prevention solutions and Natur-Tec® resin compounds and finished products.

ZERUST® Corrosion Prevention Solutions. In fiscal 2021, 80.6% of NTIC's consolidated net sales were derived from developing, manufacturing and marketing ZERUST® rust and corrosion inhibiting products and services. NTIC's consolidated net sales in fiscal 2021 included $45,554,434 in sales of ZERUST® rust and corrosion inhibiting products and services, an increase of 32.1% from such sales in fiscal 2020. Corrosion not only damages the appearance of metal products and components but also negatively impacts their mechanical performance. This applies to the rusting of ferrous metals (iron and steel) and the deterioration by oxidation of nonferrous metals (aluminum, copper, brass, etc.). NTIC's ZERUST® corrosion prevention solutions include plastic and paper packaging, powders, liquids, coatings, rust removers, cleaners, diffusers, and engineered solutions for the oil and gas industry as well as technical corrosion management and consulting services.

Plastic and Paper Packaging. NTIC's ZERUST® packaging products contain proprietary chemical formulations that continuously release invisible, odorless and non-toxic vapor that forms a passivating layer on any metal surfaces it comes in contact with and thereby inhibits rust and corrosion. The corrosion inhibiting protection is maintained only as long as the metal products to be protected remain enclosed within the ZERUST® packaging. Electron scanning shows that once metal products are removed from the ZERUST® packaging, the ZERUST® protective layer dissipates from the contents' surfaces within two hours, leaving a clean, dry, and corrosion-free metal component. This mechanism of corrosion protection enables NTIC's customers to easily package metal objects for rust-free shipment and/or long-term storage. Furthermore, by eliminating costly greasing and degreasing processes and/or significantly reducing the use of certain coatings to inhibit corrosion, NTIC's ZERUST® corrosion prevention solutions provide customers significant savings as compared to traditional methods of corrosion prevention in terms of labor, material, and capital expenditures for equipment to apply, remove, and dispose of oils and greases, as well as environmental, health and safety benefits provided by not having to handle and work with hazardous chemicals.

NTIC was first to develop the means of infusing volatile corrosion inhibiting chemical compounds (VCIs) into polyethylene and polypropylene resins. Combining ZERUST® chemical compounds with polyethylene and polypropylene resins permitted NTIC to introduce a line of plastic packaging products in the form of low and high-density polyethylene bags and shroud film, including stretch, shrink, skin, and bubble cushioning film, thereby giving customers the ability to ship and store ferrous, nonferrous, and mixed-metal products in a clean, dry, and corrosion-free condition, at an overall savings in total process costs. In addition to plastic packaging, NTIC has also developed VCI compounds to imbue kraft paper, corrugated cardboard, solid fiber, and chipboard packaging materials with corrosion protection properties. NTIC's ZERUST® plastic and paper packaging products come in various thicknesses, strength enhancements, protection types, shapes, and sizes. This product line also includes items such as ZERUST® gun cases, car covers, and tool-drawer liners, which are targeted at retail consumers.

Liquids and Coatings. NTIC's corrosion prevention solutions include a line of metal surface treatment liquids and coatings, which are oil, water, or bio-solvent based, and are marketed under brand names including Axxatec™, Axxanol™, and Z-Maxx™. These liquids and coatings provide powerful protection in aggressively corrosive environments, such as salt air, high humidity, and/or high temperatures. Products are formulated for most metal types and protection levels. For exceptionally harsh environments, customers may choose to use a combination of NTIC's liquids and coatings with ZERUST® plastic and/or paper products to achieve robust corrosion protection during manufacturing, shipping, and warehousing stages.

Rust Removers and Cleaners. NTIC also sells rust removal and cleaning products, under the Axxaclean™ brand name, designed to restore rusty parts to a usable condition without the use of labor-intensive, abrasive cleaners that damage surfaces and commonly fail to remove rust from complex metal surfaces, like the teeth of small gears.

Diffusers. NTIC's corrosion prevention solutions include a line of corrosion inhibiting vapor diffusers, such as ZERUST® ActivPak®, ZERUST® ICT® Vapor Capsules, ZERUST® ICT® Plastabs®, ZERUST® ICT® Cor-Tabs®, ZERUST® ICT® Pipe Strip, and ZERUST® ICT® Tube Strip. These diffusers are designed to protect metals within enclosures, like switch gearboxes and electronics cabinets, or can be used as extra protection when added to ZERUST® packaging products. Diffusers work by permeating the interior air of an enclosure with an invisible and odorless corrosion inhibiting vapor that settles as a protective layer on all metal surfaces that are within the range of a specific "radius of protection" for a period of one or two years depending on the product model. This invisible and dry protective layer revaporizes and dissipates into the air upon removal of a diffuser from an enclosure, leaving all surfaces clean, dry, residue-free, and corrosion-free.

Z-CIS® Technical Services. As an on-going effort to help NTIC's customers improve and control their corrosion management processes, NTIC markets and offers unique corrosion management and consulting services to target customers. This ZERUST® corrosion inhibition system (known as Z-CIS®) leverages NTIC's global network to dispatch highly-trained technical service engineers to customer sites to solve complex corrosion problems. Several major automotive companies and their automotive parts suppliers have used NTIC's Z-CIS® system.

ZERUST® Corrosion Prevention Solutions Designed Specifically for the Oil and Gas Industry. NTIC has developed proprietary engineered corrosion inhibiting solutions specifically for the mitigation of corrosion of the types of capital assets used in the petroleum and chemical process industries and has targeted the sale of these ZERUST® corrosion solutions to potential customers in the oil and gas industry. NTIC's consolidated net sales in fiscal 2021 included $3,793,466 in sales made to customers in the oil and gas industry, an increase of 36.3% from such sales in fiscal 2020. NTIC anticipates that its sales of ZERUST® products and services into the oil and gas industry will continue to remain subject to significant volatility, specifically due to economic factors, such as potential crude oil price changes and global production slowdowns caused by travel and other restrictions that may be reinstated as a result of the COVID-19 pandemic. NTIC anticipates that its sales of ZERUST® products and services into the oil and gas industry may be subject to additional volatility due to uncertainty caused by certain environmental policies of the current administration. Demand for ZERUST® oil and gas products around the world depends primarily on market acceptance and the reach of NTIC's distribution network. Because of the typical size of individual orders and overall size of NTIC's net sales derived from sales of oil and gas products, the timing of one or more orders can materially affect NTIC's sales compared to prior fiscal year period sales. Projects in Europe and the Middle East are a small but strategically important part of the sales growth picture.

The infrastructure/assets that support the oil and gas industry are predominantly constructed using metals that are highly susceptible to corrosion. The industrial environment at these facilities usually contains compounds, including sulfides and chlorides, which cause aggressive corrosion. This problem affects the service life and safety of pipelines, petroleum storage tanks, spare parts in long-term storage, processing, and other critical equipment. In addition to the costs associated with the replacement of parts and structures, maintenance and repairs, and product loss, there are significant economic losses associated with critical infrastructure being down for repair and maintenance. Furthermore, there are also considerable health, safety, and environmental risks caused by corrosion that can greatly increase economic losses. While the industry predominantly uses various paints/coatings, engineered alloys, cathodic protection, etc. to mitigate corrosion, there are several situations where such options are not feasible and NTIC believes that its ZERUST® oil and gas corrosion prevention solutions are more effective at minimizing maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure, and reduce the risk of environmental pollution due to leaks caused by corrosion.

NTIC's rust and corrosion inhibiting products for the oil and gas industry include ZERUST® Flange Savers®, ZERUST® ReCAST-SSB solutions, and ZERUST® chemicals, including Zerion powders and gels, in addition to many of the standard industrial ZERUST® rust and corrosion inhibiting products previously described.

ZERUST® Flange Savers® are specially designed covers that have been impregnated with a proprietary ZERUST® inhibitor formulation to provide corrosion protection for flanges, valves, and welded joints. Oil and gas pipeline segments are connected by flanges and welded joints of varying sizes, designs, and materials. These connection points often corrode under aggressive industrial environments and harsh operating conditions, thereby causing costly maintenance, operational, and safety problems. ZERUST® Flange Savers® are available in various sizes to accommodate different pipe diameters, pressure ratings, and international standards for pipeline valves and flanges.

ZERUST® ReCAST-SSB solutions protect the Soil Side Bottoms (SSB) of aboveground storage tanks through a variety of unique and highly effective delivery systems designed by the Zerust Oil & Gas team to deliver proprietary Zerion FVS corrosion inhibitor to spaces under tank bottoms that are susceptible to significant corrosion. Tank bottoms are typically made of steel plates, which are in direct contact with a foundation surface that may be concrete, sand/soil, or asphalt/bitumen. It is typically not possible to protect this underside surface with traditional coatings. Cathodic protection (CP) systems can only provide partial protection, but also have significant limitations that cause failures well ahead of the expected service life of a tank. The ZERUST® solutions provide effective protection even to areas that cannot be addressed with CP. These are engineered solutions where each system is tailored to a customer's requirements depending on factors including the tank foundation design, specific environmental conditions, and tank diameter.

ZERUST® Zerion powder-based inhibitor solutions include the following:

- Zerion FVS is a unique inhibitor blend that is used in both the SSB Solutions and in internal pipeline protection. This "best-in-class" product has been successfully deployed at multiple client sites in North and South America, Europe, the Middle East, India as well as other parts of Asia.

- Zerion FAN-5 is a lower cost inhibitor that is very effective at protecting metals upon contact. It can be used to treat large volumes of water that may be used for hydrotesting. In combination with Zerion FVS, it offers a more complete solution for the protection of pipeline internals.

- AutoFog is a revolutionary product that allows for the quick VCI saturation of large volume spaces without the need for mechanical "fogging" equipment. This rapid self-diffusing capability is designed for sealed void spaces, protection of large/complex assets like heat exchangers, and heater-treaters.

Natur-Tec® Resin Compounds and Finished Products. NTIC manufactures and sells a broad range of bioplastic packaging solutions, including bio-based and certified compostable (fully biodegradable) polymer resin compounds, and finished products under the Natur-Tec® brand. NTIC's consolidated net sales in fiscal 2021 included $10,939,385 in sales of Natur-Tec® resins and finished products, a decrease of 16.9% compared to sales in fiscal 2020. Market drivers such as volatile petroleum prices, reduced dependence on foreign oil, reduced carbon footprints, requirements by multinational brands for sustainable packaging solutions that meet Circular Economy and environmentally responsible end-of-life disposal mandates, and concerns about plastic residue in the environment have led to heightened interest in using sustainable, bio-based and renewable plant-biomass resources for the manufacture of plastics and industrial products. Plastics that are fully biodegradable in commercial composting or anaerobic digestor systems allow the safe and effective conversion of these plastics to carbon dioxide, water, and fertilizer at the end of their service life. Increased environmental and sustainability awareness at the corporate and consumer level, improved technical properties and product functionality, as well as recent foreign, state, and local governmental regulations banning the use of conventional plastics or mandating the use of certain biodegradable or compostable products, including regulations in China and India, have also fueled this interest in bio-based and biodegradable-compostable plastics. The term "bio-plastics" encompasses a broad category of plastics that are either bio-based, which means derived from renewable resources such as corn or cellulosic/plant material or blends thereof, or are engineered to be fully commercially compostable, or both.

Natur-Tec® resins and finished products sales in North America and finished product sales at NTIC's majority-owned subsidiary in India, Natur-Tec India Private Limited, experienced reduced demand globally as a result of the COVID-19 pandemic. The COVID-19 pandemic continues to have an impact on demand from many large users of bioplastics, including college campuses, stadiums, arenas, restaurants, and corporate office complexes. These are expected to be some of the last businesses to re-open, and many of these institutions have still not reopened to pre-COVID capacity. Furthermore, production across the apparel industry has declined sharply, further decreasing demand for our Natur-Tec bioplastic bags, which have become an important part of the sustainability initiatives within this industry.

Resin Compounds. Natur-Tec® resin compounds are produced by blending commonly available base resins, such as Ecoflex® from BASF, Ingeo® PLA from NatureWorks LLC, and Luminy® from Total-Corbion with organic and inorganic fillers and proprietary polymer modifiers and compatibilizers using NTIC's proprietary and patented ReX

Process. In this process, biodegradable polymers, natural polymers made from renewable, plant-biomass resources, and organic and inorganic materials are reactively blended in the presence of proprietary compatibilizers and polymer modifiers to produce bio-based and/or compostable polymer resin formulations that exhibit unique and stable morphology. Natur-Tec® resin compounds are engineered for high performance, ease of processing, and reduced cost compared to most other bio-plastic materials and can be processed by converters using conventional plastic manufacturing processes and equipment.

Natur-Tec® resin compounds are sold in several grades tailored for a variety of applications, such as blown-film extrusion, profile extrusion, thermoforming, extrusion coating, and injection molding.

Natur-Tec® flexible film resin compounds are fully commercially compostable and meet the requirements of international standards for compostable plastics, such as ASTM (American Society for Testing and Materials) D6400 (U.S.), EN 13432 (European standards for products and services by European Committee for Standardization), and ISO (International Organization for Standardization) 17088, and are certified as 100% compostable by organizations including the BPI (Biodegradable Products Institute) in the United States and TÜV Austria in Europe. Natur-Tec® film resin compounds can be used to produce film for applications, such as bags, including compost bags, lawn and leaf bags, pet waste collection bags, and carry-out bags, agricultural film, and consumer and industrial packaging. Natur-Tec® film resin compounds are also used to produce bags and covers for branded apparel packaging and to manufacture specialty foodservice items, such as compostable drinking straws, thermoformed lids and disposable food-handling gloves.

The Natur-Tec® compostable extrusion coating resin compounds are bio-based and biodegradable and are designed to replace conventional plastic materials for extrusion coating applications. Natur-Tec® extrusion coating resin compounds are manufactured using sustainable and renewable resources, per the ASTM D6866 standard, which allows companies and consumers the opportunity to reduce or neutralize their carbon footprint and are designed to meet the requirements of international standards for compostable plastics, such as ASTM D6400. Natur-Tec® extrusion coating resin compounds provide good adhesion to paper, an excellent print surface, and good heat seal strength and the coating material is suitable for food contact applications, including both hot and cold applications. Natur-Tec® extrusion coating resin compounds can be used for coating paper and paperboards for the manufacture of disposable cups, plates, and other foodservice items.

The Natur-Tec® compostable injection molding resin compounds are bio-based and compostable and are designed to replace conventional plastic materials for injection molded plastic applications. Natur-Tec® compostable injection molding resin compounds are manufactured using sustainable and renewable resources, per the ASTM D6866 standard, and are designed to meet the requirements of international standards for compostable plastics, such as ASTM D6400 and EN 13432. Natur-Tec® compostable injection molding resin compounds can be used for injection molded plastic applications, such as cutlery, pens, hangers, containers, and packaging. Natur-Tec® bio-based injection molding resin compounds are made with at least 90% bio-based/renewable resource-based materials, per the ASTM D6866 standard, and are meant to enhance sustainability by replacing petroleum-based plastics. Natur-Tec® bio-based injection molding resin compounds exhibit the same properties as conventional plastic materials and can be used in applications such as automotive components, consumer goods, electronics, medical products, furniture, and packaging.

Finished Products. Natur-Tec® finished products include totally biodegradable and compostable trash bags, agricultural film, and other single-use disposable products, such as compostable cutlery and food and consumer goods packaging currently marketed under the Natur-Bag® or Natur-Ware® brands.

The Natur-Bag® product line offers 15 different compostable trash bag sizes, from 3-gallon to 96-gallon, as well as shopper bags, produce bags and gloves. The bags are available in various SKU configurations, including retail packs that are sold to the consumer either through retail outlets or through online stores and industrial case packs that are sold to commercial and industrial customers primarily through wholesalers and distributors. The Natur-Bag® products are manufactured from the Natur-Tec® flexible film resin compounds and thus are fully biodegradable and compostable.

The Natur-Ware® product line consists of bio-based and compostable cutlery made from the Natur-Tec® compostable injection molding resin compounds. Natur-Ware® cutlery can be composted along with food scraps in zero-waste programs.

Both Natur-Bag® and Natur-Ware® products are certified fully commercially compostable and carry the BPI Compostable logo in the United States and the TÜV Austria OK Compost logo in Europe. Furthermore, these products were also independently tested and approved for use in organic waste diversion systems by Cedar Grove, one of the largest compost operators in the United States.

Sales, Marketing, and Distribution

ZERUST® Corrosion Prevention Solutions. In the United States, NTIC markets its ZERUST® rust and corrosion inhibiting products and services, including its products designed for the oil and gas industry, principally to industrial users in the automotive, electronics, electrical, mechanical, military, retail consumer, and oil and gas markets by a direct sales force and through a network of independent distributors, manufacturer's sales representatives, and strategic partners. Prior to placing an order, NTIC's technical service consultants work directly with the end users of NTIC's ZERUST® products to analyze their specific corrosion prevention needs and develop systems to meet their performance requirements.

Internationally, NTIC has entered into a series of joint ventures with foreign partners (either directly or through a holding company). NTIC receives fees for providing technical support, marketing assistance, and other services to its joint ventures based primarily on the net sales of the individual joint ventures in accordance with the terms of the joint venture arrangements. Such services include consulting, legal, insurance, technical, and marketing services.

In China, NTIC sells its products and services through NTIC China. NTIC has wholly-owned or majority-owned subsidiaries to conduct its business in Brazil, Mexico, Vietnam and Singapore. In addition, effective as of September 1, 2021, NTIC purchased the remaining 50% ownership interest in its Indian joint venture, Harita-NTI Limited, and will continue selling its ZERUST products in India through this wholly-owned subsidiary.

With respect to the sales and marketing of ZERUST® rust and corrosion inhibiting products and services to the oil and gas industry, NTIC uses a combination of direct sales personnel, independent sales agents, and its joint venture network. In addition, in an attempt to penetrate the oil and gas industry within certain markets more quickly, NTIC has entered into various agreements with specific organizations that have existing long-term relationships with key oil and gas industry clients. NTIC also engages in certain direct marketing activities to build its brand within the oil and gas industry, such as traditional advertising and direct mail campaigns and presence and participation at selected key trade shows and technical forums. Additionally, NTIC has worked to adapt its marketing activities in light of the COVID-19 pandemic. NTIC continues to believe the sale of its ZERUST® corrosion prevention solutions to customers in the oil and gas industry will involve long sales cycles, likely including multi-year trial periods with each user and a slow integration process thereafter.

Natur-Tec® Resin Compounds and Finished Products. In the United States, NTIC markets its Natur-Tec® resin compounds and finished products through a network of national and regional distributors and independent manufacturer's sales representatives and two NTIC direct sales employees as of August 31, 2021. Target customers for Natur-Tec® finished products include individual consumers as well as commercial and institutional organizations, such as corporations and government agencies, and educational organizations, such as universities and school districts. NTIC is also targeting key national and regional retailers utilizing independent sales agents. Target customers for Natur-Tec® resin compounds include plastics converters and foodserviceware brands that would purchase Natur-Tec® resin compounds to manufacture and sell their own finished bio-based and compostable end products, such as film, bags, and cutlery. Additionally, NTIC has targeted retailers and customers that may have applications for our products related to the COVID-19 pandemic.

Internationally, NTIC uses Natur-Tec India, Natur Tec Lanka, NTIC China and a network of international distributors to market its Natur-Tec® resin compounds and finished products. The government of India recently announced a phased ban on the manufacture and sale of single-use plastics beginning in July 2022. The first phase bans earbuds and plastic sticks used in balloons and ice cream. The second phase bans plastic cigarette packets and plastic bags less than 100 microns thick. Notably, compostable plastics are exempt from this ban. Accordingly, NTIC expects the market in India for bio-plastic packaging solutions to continue to grow substantially. Similarly, in the last fiscal year, NTIC saw a rise in the sales of Natur-Tec® products in China and anticipates that sales will continue to grow.

Competition

ZERUST® Corrosion Prevention Solutions. While NTIC is unaware of any third parties with which NTIC competes on a worldwide basis with respect to its corrosion prevention solutions, NTIC does compete with several third parties on a regional basis. NTIC evaluates competing rust and corrosion inhibiting products on an ongoing basis. Some of NTIC's competitors are established companies that may have financial resources, marketing capabilities, distribution networks and other resources substantially greater than those of NTIC. As a result, they may be able to adapt more quickly to new or emerging technologies and changes in customer requirements or to devote greater resources to the promotion and sale of their products than NTIC. With respect to its rust and corrosion inhibiting products, NTIC competes on the basis of product innovation, quality, reliability, product support, customer service, reputation, and price. Some of NTIC's competitors may have achieved significant market acceptance of their competing products and brand recognition. NTIC, however, believes it has an advantage over most of its competitors as a result of NTIC's technical innovation and its value-added services. NTIC attempts to provide its customers with the highest level of technical service and applications engineering in addition to ZERUST® rust and corrosion inhibiting products. Nonetheless, the commoditization of certain of NTIC's ZERUST® rust and corrosion inhibiting products has led, and may continue to lead, to lower prices and lower margins on such products. In addition, because certain barriers to entry are low, additional competitors may emerge, which likely would lead to the further commoditization of NTIC's rust and corrosion inhibiting products.

With respect to NTIC's corrosion prevention solutions for use in the oil and gas industry, NTIC's primary barrier to entry is a combination of conservatism, complacency, and confidence in old approaches, as well as the complexity of the buying organizations. Some of NTIC's competitors with respect to its traditional ZERUST® rust and corrosion inhibiting products also compete in the oil and gas industry. NTIC also faces competition from new suppliers who provide alternative approaches to corrosion prevention, some of which have a significant market presence and more years of experience and credibility in the oil and gas industry. Original equipment manufacturer (OEM) suppliers to the oil and gas industry present a new market vertical for NTIC's traditional industrial ZERUST® products.

Natur-Tec® Resin Compounds and Finished Products. With respect to NTIC's Natur-Tec® resin compounds and finished products, NTIC competes with several established companies that have been producing and selling similar products for a significantly longer time period and have significantly more sales, more extensive and effective distribution networks, and better brand recognition than NTIC. Most of these companies also have substantially more financial and other resources than NTIC. NTIC competes on the basis of performance, brand awareness, distribution network, product availability, product offering, improved shelf life, place of manufacture, and price. Because of price competition, NTIC's margins on its Natur-Tec® resin compounds and finished products are lower than its margins on its ZERUST® corrosion prevention solutions. NTIC also has encountered in the past and could continue to encounter additional supply constraints for the base polymer resins used to manufacture NTIC's Natur-Tec® resin compounds and finished products since there are a limited number of suppliers of such base polymer resins and limited capacity for their production.

Research and Development

NTIC's research and development activities are directed at improving existing products, developing new products, reducing costs, and improving quality assurance through improved testing of NTIC's products. NTIC's internal research and development activities are conducted at its facilities located in Circle Pines, Minnesota; Beachwood, Ohio; and Dresden, Germany under the direction of internationally known scientists and research institutes under exclusive contract with NTIC with respect to the subject of their respective research efforts. EXCOR has established a wholly-owned subsidiary, Excor Korrosionsforschung GmbH, to conduct research into new fields of corrosion inhibiting packaging and the applications engineering of such products in conjunction with NTIC's domestic research and development operations. With respect to NTIC's Natur-Tec® resin compounds and finished products, Ramani Narayan, Ph.D., a current director of NTIC and Distinguished Professor in the Department of Chemical Engineering & Materials Science at Michigan State University, provides his expertise and technical support to NTIC.

NTIC anticipates that it will spend between $4,400,000 and $4,800,000 in fiscal 2022 on research and development activities.

Intellectual Property Rights

NTIC's success depends and will continue to depend in part upon its ability to maintain patent and trademark protection for its products and processes, to preserve its proprietary information and trade secrets, and to operate without infringing the proprietary rights of third parties. NTIC's policy is to attempt to protect its technology by, among other things, filing patent applications and trademark applications and vigorously preserving the trade secrets covering its technology and other intellectual property rights.

In 1980, NTIC developed and patented the first polyolefin (plastic) based industrial corrosion inhibiting packing material in the world. The U.S. patent granted under this patent application became the most important intellectual property right in NTIC's history. This patent expired in 2000. NTIC has since filed for 12 letters of patent in the United States covering various corrosion inhibiting technologies, systems, and applications and now owns several patents in these areas. These patents and patent applications have been extended to the countries of strategic relevance to NTIC, including Australia, Brazil, Canada, China, Europe, Japan, India, Korea, Mexico, Russia, and Taiwan. In addition, EXCOR owns several patents in the area covering various corrosion inhibiting technologies and has also applied for new patents on proprietary new corrosion inhibiting technologies. NTIC is also seeking additional patent protection covering various host materials into which its corrosion inhibiting additives and other protective features can be incorporated, proprietary new process technologies, and chemical formulations outside the area of corrosion protection. NTIC owns several patents outside the area of corrosion protection both in the United States and in countries of strategic relevance to NTIC, including the above-noted countries.

In addition to seeking patent protection, NTIC maintains an extensive portfolio of trademarks in countries where NTIC has a presence directly or through its subsidiaries and joint ventures. NTIC continuously pursues new trademark applications of strategic interest worldwide. NTIC owns the following U.S. registered trademarks: NTI®, NTI & Globe Design®, ZERUST®, EXCOR®, ICT®, Z-CIS®, COR TAB®, PLASTABS®, NATUR-TEC®, NATUR-TEC & Design®, NATUR-BAG® and NATUR-WARE®, ZERION®, AUTOFOG®, FLANGE SAVER®, and ACTIVPAK®. NTIC also has a registered trademark on the use of the Color Yellow with respect to corrosion inhibiting packaging. Furthermore, NTI®, ZERUST®, EXCOR®, the Color Yellow®, and NTI ASEAN®, as well as other marks, have been registered in the European Union, and several new applications are pending.

NTIC requires its employees, consultants, and advisors with access to its confidential information, including trade secrets, to execute confidentiality agreements upon commencement of their employment or consulting relationships with NTIC. These agreements generally provide that all confidential information NTIC develops or makes known to the individual during the course of the individual's employment or consulting relationship with NTIC must be kept confidential by the individual and not disclosed to any third parties. NTIC also requires all of its employees and consultants who perform research and development for NTIC to execute agreements that generally provide that all inventions developed by these individuals during their employment or service arrangement with NTIC will fall under NTIC's proprietary intellectual property rights.

Manufacturing

NTIC's ZERUST® rust and corrosion inhibiting products are manufactured according to NTIC's specifications primarily by selected independent sub-contractors under trade secrecy agreements and/or license agreements. In addition, NTIC manufactures select ZERUST® rust and corrosion inhibiting products, consisting primarily of liquids and powders, at its corporate headquarters location in Circle Pines, Minnesota.

NTIC's Natur-Tec® resin compounds and finished products are produced at facilities in India, China, Malaysia, and the United States. NTIC's Natur-Tec® resin compounds can be shipped to manufacturing facilities around the world, where they then can be converted into finished products, such as film or piece of cutlery. NTIC's Natur-Tec® finished products are manufactured using NTIC's Natur-Tec® resin compounds by select sub-contractors.

NTIC is ISO 9001 certified with respect to the manufacturing of its products. NTIC believes that the process of ISO 9001 certification serves as an excellent total quality management tool, enabling NTIC to ensure consistency in the performance of its products. In addition, because potential customers may prefer or require manufacturers to have achieved ISO certification, such ISO certifications may provide NTIC with certain competitive advantages.

Availability of Raw Materials

NTIC does not typically carry excess quantities of raw materials because of historically widespread availability for such materials from various suppliers. However, with respect to its Natur-Tec® resin compounds and finished products, there are a limited number of suppliers of the base resins used to manufacture the resin compounds and finished products. Additionally, there is growing demand for these base resins, which has caused cost increases and, more recently, supply issues. In the past and during fiscal year 2021, NTIC has experienced some delays in obtaining these base resins. Due to supply chain disruptions associated with the COVID-19 pandemic and otherwise, NTIC experienced longer lead times for raw materials, was forced to find new suppliers of certain raw materials, and experienced raw material cost increases during fiscal 2021 compared to prior fiscal years. It is anticipated that these worldwide disruption in supply issues will continue throughout fiscal year 2022. Additionally, during fiscal year 2021, extreme weather caused supply chain disruptions and caused delays in receiving base resins.

In addition, a few raw materials and purchased parts used in NTIC's rust and corrosion inhibiting products and Natur-Tec® finished products are sourced from suppliers who currently serve as NTIC's sole source of supply for these materials and parts. Although NTIC believes it can obtain these raw materials and parts from other suppliers, an unexpected loss of supply over a short period of time, including as a result of the worldwide disruption in supply issues, may not allow NTIC time to replace these sources in the ordinary course of business.

Backlog

NTIC had an estimated order backlog of $4,192,000 as of August 31, 2021, compared to $3,593,000 as of August 31, 2020, which was generally across all business units. Sales relating to this backlog are expected to be realized during first quarter of fiscal 2022. These are orders that are held by NTIC pending release instructions from the customers to be used for just-in-time production. Customers generally place orders on an "as needed" basis and expect delivery within a relatively short period of time.

Governmental Regulation

The U.S. Food and Drug Administration (FDA) has indicated to NTIC that it has no objection to the use of ZERUST® ICT® packaging products in protecting metal food containers and processing equipment. In addition, the manufacture, sale and use of NTIC's Natur-Tec® resin compounds and finished products are subject to regulation in the United States by the FDA. The FDA's regulations are concerned with substances used in food packaging materials. Thus, food and beverage containers are in compliance with FDA regulations if the components used in the food and beverage containers are approved by the FDA as indirect food additives for their intended uses and comply with the applicable FDA indirect food additive regulations or are generally recognized as safe for their intended uses and are of suitable purity for those intended uses. NTIC believes that its resin compounds are in compliance with all FDA requirements and that NTIC does not require further FDA approval prior to the sale of its products.

Employees

As of August 31, 2021, NTIC had a total of 78 full-time employees located in North America, consisting of 21 in sales and marketing, 19 in research and development and lab, 27 in administration, and 11 in production. As of August 31, 2021, NTIC's wholly-owned subsidiary in China had 35 full-time employees, its majority-owned subsidiary in Brazil had 20 full-time employees, its majority-owned subsidiary in India had 9 full-time employees, its wholly owned subsidiary in Mexico had no full-time employees, and its holding company, NTI Asean, had no full-time employees. Effective as of September 1, 2021, NTIC purchased the remaining 50% ownership interest in its former Indian joint venture, Harita-NTI Limited, and will continue selling its ZERUST products in India through this wholly-owned subsidiary. Harita-NTI has 58 full-time employees. There are no unions representing NTIC's employees, and NTIC believes that its relations with its employees are good.

Health, Safety and Environment

Health, safety and environment (HSE) are the cornerstone of NTIC. NTIC is in the business of converting unique, environmentally beneficial materials science into value added products and services for industrial and consumer applications. NTIC believes that it is responsible to its worldwide customers, its people, its communities and its stockholders, and NTIC takes these responsibilities seriously. NTIC is dedicated to investing in the future of the planet and NTIC's people and intends to continue to invest in HSE protection and improvements in a timely manner consistent with available technology.

NTIC is guided by its Policy Statement on HSE, which sets forth NTIC's HSE objectives, including ensuring that all activities across the value chain are conducted in a manner which is consistent with NTIC's quality management standard and HSE programs, ensuring that business activities are conducted to prevent harm and protect health and safety, and developing, manufacturing, distributing and marketing products and services with full regard for HSE aspects. To accomplish these objectives, NTIC intends to, among other things, establish targets within its quality management standard and HSE programs to measure progress and ensure continuous improvement, provide safe and healthy workplaces for its employees, contractors and other service providers, and provide continued training to enable employees to meet their responsibility to contribute to compliance with NTIC's HSE objectives.

Diversity and Inclusion

Diversity and inclusion are embedded in NTIC's values and integrated into its strategies. NTIC's Human Rights Policy was designed to align with the United Nations Global Compact and core elements of the United Nations Universal Declaration of Human Rights. NTIC is committed to providing an environment free of discrimination and harassment, where all individuals are treated with respect and dignity, can contribute fully, and have equal opportunities. NTIC has worked to build a diverse and inclusive workforce and is committed to equal opportunity. NTIC invests in building diverse talent pools and provides training to improve skills where appropriate. NTIC upholds and supports the right to equal treatment without discrimination or harassment.

Education

NTIC offers an educational assistance benefit program to eligible employees. NTIC may reimburse all or part of the registration and tuition costs for full-time employees who continue their education in a work-related field. In addition to educational assistance for formal education, NTIC may arrange training programs that enable employees to progress in their technical, commercial, or financial knowledge of NTIC's business.

Compensation and Benefits

NTIC's compensation program is designed to attract and retain talented employees in the industry by offering competitive compensation and benefits. NTIC has established fair and competitive pay levels that are based on local markets and job descriptions and are not based on gender, age, ethnicity, nationality or other personal characteristics or beliefs. NTIC provides compensation and benefits that are competitive and comply with applicable laws, and NTIC commits to a fair and living wage.

Values and Ethics

In connection with NTIC's core values, NTIC acts in accordance with its Code of Ethics. NTIC's Code of Ethics requires its employees, officers and directors to be honest, trustworthy, conscientious and dedicated to the highest standards of ethical business practices. Each employee, officer and director must know and abide by applicable laws.

Available Information

NTIC is a Delaware corporation that was originally organized as a Minnesota corporation in 1970. NTIC's principal executive office is located at 4201 Woodland Road, Circle Pines, Minnesota 55014, and its telephone number is (763) 225-6600. NTIC's website is located at www.ntic.com. References to NTIC's website addressed in this report are provided as a convenience and as an inactive textual reference only. The information on NTIC's website or any other website is not incorporated by reference into, and is not considered a part of, this report.

NTIC makes available, free of charge and through its Internet web site, its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to any such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after NTIC electronically files such material with, or furnishes it to, the Securities and Exchange Commission (SEC). Reports filed with the SEC may be viewed at www.sec.gov.

Forward-Looking Statements

This report on Form 10-K contains not only historical information, but also forward-looking statements that are within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements are subject to the safe harbor created by those sections. In addition, NTIC or others on NTIC's behalf may make forward-looking statements from time to time in oral presentations, including telephone conferences and/or web casts open to the public, in press releases or reports, on NTIC's Internet web site, or otherwise. All statements other than statements of historical facts included in this report or expressed by NTIC orally from time to time that address activities, events, or developments that NTIC expects, believes, or anticipates will or may occur in the future are forward-looking statements, including, in particular, the statements about NTIC's plans, objectives, strategies, and prospects regarding, among other things, the statements about NTIC's plans, objectives, strategies, and prospects regarding, among other things, NTIC's financial condition, results of operations and business, the anticipated effect of COVID-19 on NTIC's business, operating results and financial condition, the outcome of contingencies, such as legal proceedings. NTIC has identified some of these forward-looking statements in this report with words like "believe," "can," "may," "could," "would," "might," "forecast," "possible," "potential," "project," "will," "should," "expect," "intend," "plan," "predict," "anticipate," "estimate," "approximate," "outlook," or "continue" or the negative of these words or other words and terms of similar meaning. The use of future dates is also an indication of a forward-looking statement. Forward-looking statements may be contained in the notes to NTIC's consolidated financial statements and elsewhere in this report, including under "*Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations*."

Forward-looking statements are based on current expectations about future events affecting NTIC and are subject to uncertainties and factors that affect all businesses operating in a global market as well as matters specific to NTIC. These uncertainties and factors are difficult to predict, and many of them are beyond NTIC's control. The following are some of the uncertainties and factors known to us that could cause NTIC's actual results to differ materially from what NTIC has anticipated in its forward-looking statements:

- The effect of COVID-19 on NTIC's business, operating results and financial condition, including disruption to our customers, suppliers and subcontractors, as well as the global economy and financial markets;
- The effect of worldwide disruption in supply issues on NTIC's business, operating results and financial condition, which will likely continue throughout fiscal year 2022, regardless of the status of the COVID-19 pandemic;
- The effect of current worldwide economic conditions and any turmoil and disruption in the global credit and financial markets on NTIC's business;
- Variability in NTIC's sales of ZERUST® products and services to the oil and gas industry and Natur-Tec® products and NTIC's equity income of joint ventures, which variability in sales and equity in income from joint ventures, in turn, subject NTIC's earnings to quarterly fluctuations;
- Risks associated with NTIC's international operations and exposure to fluctuations in foreign currency exchange rates, import duties, taxes, and tariffs;
- The effect of the United Kingdom's process to exit the European Union on NTIC's operating results, including, in particular, future net sales of NTIC's European and other joint ventures;
- The effect of the health of the U.S. automotive industry on NTIC's business;
- NTIC's dependence on the success of its joint ventures and fees and dividend distributions that NTIC receives from them;
- Risks associated with NTIC's recent acquisition of the remaining 50% ownership interest in its Indian joint venture, Harita-NTI;
- NTIC's relationships with its joint ventures and its ability to maintain those relationships, especially in light of anticipated succession planning issues, and risks associated with possible future acquisitions of the remaining ownership interests of certain joint ventures;
- Fluctuations in the cost and availability of raw materials, including resins and other commodities, including supply chain disruptions and weather related impacts;
- The success of and risks associated with NTIC's emerging new businesses and products and services, including in particular NTIC's ability and the ability of NTIC's joint ventures to sell ZERUST® products and services to the oil and gas industry and Natur-Tec® products and the often lengthy and extensive sales process involved in selling such products and services;

- NTIC's ability to introduce new products and services that respond to changing market conditions and customer demand;
- Market acceptance of NTIC's existing and new products, especially in light of existing and new competitive products;
- Maturation of certain existing markets for NTIC's ZERUST® products and services and NTIC's ability to grow market share and succeed in penetrating other existing and new markets;
- Increased competition, especially with respect to NTIC's ZERUST® products and services, and the effect of such competition on NTIC's and its joint ventures' pricing, net sales, and margins;
- NTIC's reliance upon and its relationships with its distributors, independent sales representatives, and joint ventures;
- NTIC's reliance upon suppliers;
- Oil prices, which may affect sales of NTIC's ZERUST® products and services to the oil and gas industry;
- NTIC's operations in China, and the risks associated therewith;
- The costs and effects of complying with laws and regulations and changes in tax, fiscal, government, and other regulatory policies, including rules relating to environmental, health, and safety matters;
- Unforeseen product quality or other problems in the development, production, and usage of new and existing products;
- Unforeseen production expenses incurred in connection with new customers and new products;
- Loss of or changes in executive management or key employees;
- Ability of management to manage around unplanned events;
- Pending and future litigation;
- NTIC's reliance on its intellectual property rights and the absence of infringement of the intellectual property rights of others;
- NTIC's ability to maintain effective internal control over financial reporting, especially in light of its joint venture arrangements;
- Changes in applicable laws or regulations and NTIC's failure to comply with applicable laws, rules, and regulations;
- Changes in generally accepted accounting principles and the effect of new accounting pronouncements;
- Fluctuations in NTIC's effective tax rate;
- The effect of extreme weather conditions on NTIC's operating results; and
- NTIC's reliance upon its management information systems.

For more information regarding these and other uncertainties and factors that could cause NTIC's actual results to differ materially from what NTIC has anticipated in its forward-looking statements or otherwise could materially adversely affect its business, financial condition, or operating results, see "*Part I. Item 1A. Risk Factors*."

All forward-looking statements included in this report are expressly qualified in their entirety by the foregoing cautionary statements. NTIC wishes to caution readers not to place undue reliance on any forward-looking statement that speaks only as of the date made and to recognize that forward-looking statements are predictions of future results, which may not occur as anticipated. Actual results could differ materially from those anticipated in the forward-looking statements and from historical results due to the uncertainties and factors described above and others that NTIC may consider immaterial or does not anticipate at this time. Although NTIC believes that the expectations reflected in its forward-looking statements are reasonable, NTIC does not know whether its expectations will prove correct. NTIC's expectations reflected in its forward-looking statements can be affected by inaccurate assumptions NTIC might make or by known or unknown uncertainties and factors, including those described above. The risks and uncertainties described above are not exclusive, and further information concerning NTIC and its business, including factors that potentially could materially affect its financial results or condition, may emerge from time to time. NTIC assumes no obligation to update, amend, or clarify forward-looking statements to reflect actual results or changes in factors or assumptions affecting such forward-looking statements. NTIC advises you, however, to consult any further disclosures NTIC makes on related subjects in its annual reports on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K that NTIC files with or furnishes to the SEC.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The two individuals named below have been designated by NTIC's Board of Directors as "executive officers" of NTIC. Their ages and the offices held, as of November 15, 2021, are as follows:

Name	Age	Position with NTIC
G. Patrick Lynch	54	President and Chief Executive Officer
Matthew C. Wolsfeld	47	Chief Financial Officer and Corporate Secretary

G. Patrick Lynch, an employee of NTIC since 1995, has been President since July 2005 and Chief Executive Officer since January 2006 and was appointed a director of NTIC in February 2004. From July 2005 to January 2006, Mr. Lynch served as Chief Operating Officer of NTIC. Mr. Lynch served as President of North American Operations of NTIC from May 2004 to July 2005. Prior to May 2004, Mr. Lynch held various positions with NTIC, including Vice President of Strategic Planning, Corporate Secretary and Project Manager. Mr. Lynch is also an officer and director of Inter Alia Holding Company, a holding company that is a significant stockholder of NTIC. Prior to joining NTIC, Mr. Lynch held positions in sales management for Fuji Electric Co., Ltd. in Tokyo, Japan and programming project management for BMW AG in Munich, Germany. Mr. Lynch received an M.B.A. degree from the University of Michigan Ross School of Business in Ann Arbor, Michigan.

Matthew C. Wolsfeld, an employee of NTIC since February 2001, has been NTIC's Chief Financial Officer since November 2001 and Corporate Secretary since November 2004. Mr. Wolsfeld was Controller of NTIC from May 2001 through November 2001. Prior to joining NTIC, Mr. Wolsfeld held an auditing position with PricewaterhouseCoopers LLP in Minneapolis, Minnesota from 1997 to 2001. Mr. Wolsfeld received a B.A. degree in Accounting from the University of Notre Dame and received his M.B.A. degree at the University of Minnesota, Carlson School of Business. Mr. Wolsfeld is a Certified Public Accountant.

Other corporate officers of NTIC, their ages, and offices held, as of November 15, 2021, are as follows:

Name	Age	Position with NTIC
Vineet R. Dalal	52	Vice President and Director – Global Market Development – Natur-Tec®
Gautam Ramdas	48	Vice President and Director – Global Market Development – Oil & Gas
Brian Haglund	37	Vice President of Operations – North America

Vineet R. Dalal, an employee of NTIC since 2004, has served as Vice President and Director – Global Market Development – Natur-Tec® since November 2005. Prior to joining NTIC, Mr. Dalal was a Principal in the Worldwide Product Development Practice of PRTM, a management consultancy to technology-based companies (now part of PricewaterhouseCoopers Management Consulting). In this position, Mr. Dalal consulted to several Fortune 500 companies, in the areas of product strategy, Product Lifecycle Management (PLM) and technology management. Prior to that, Mr. Dalal held positions in program management and design engineering at National Semiconductor Corporation in Santa Clara, California. Mr. Dalal received an M.B.A. degree from the University of Michigan Ross School of Business in Ann Arbor, Michigan. He also holds an M.S. degree in Electrical and Computer Engineering from Oregon State University, and a B.Eng. degree in Electronics Engineering from Karnatak University, India.

Gautam Ramdas, an employee of NTIC since 2005, has served as Vice President and Director – Global Market Development – Oil & Gas since 2005. Prior to joining NTIC, Mr. Ramdas was a Manager in the Strategic Change group of IBM Business Consulting Services. In this position, Mr. Ramdas led consulting engagements at several Fortune 500 companies, in the areas of service strategy, global supplier relationship management and supply chain streamlining. Mr. Ramdas held positions in the E-Commerce and Supply Chain strategy groups at PricewaterhouseCoopers Management Consulting, again providing consulting services for Fortune 500 clients. Prior to management consulting, Mr. Ramdas worked as a program manager and design engineer with Kinhill Engineers in Australia. He has also been involved in the start-up stage of successful small businesses in the United States and in India. Mr. Ramdas received an M.B.A. from the University of Michigan Ross School of Business in Ann Arbor, Michigan. He also holds a bachelor's degree in Mechanical Engineering from the College of Engineering, Guindy (Chennai), India.

Brian Haglund, an employee of NTIC since 2018, is currently serving as Vice President of Operations – North America. Prior to joining NTIC, Mr. Haglund held various leadership roles within Textron, a Fortune 500 industrial conglomerate. During his tenure with Textron, Mr. Haglund led various global operations and manufacturing facilities across the US, in China, and in Germany focusing on aerospace and industrial manufacturing. Mr. Haglund received an M.B.A. degree with a concentration in Finance from The Miller College of Business through Ball State University. He also holds a B.A. degree in Supply Chain Management from Eli Broad College of Business through Michigan State University.

Item 1A. RISK FACTORS

The following are the most material factors known to NTIC that could materially adversely affect its business, operating results, or financial condition.

Risk Factors Summary

This summary is not complete and should be read in conjunction with the risk factors set forth below.

Risks Related to NTIC's Business and Industry

- Any weakness in the global economy, and in particular in the United States, Europe, India and China, and in the automotive industry, may negatively impact NTIC's business, operating results, and financial condition.
- The COVID-19 pandemic has adversely impacted and will likely continue to adversely impact NTIC's business, operating results and financial condition.
- Supply chain disruptions could interrupt product manufacturing, increase product costs and result in lost sales, which may have a material adverse effect on NTIC's business, operating results and financial condition.
- Disruptions to the distribution channels for NTIC's products may negatively impact NTIC's business, operating results, and financial condition.
- NTIC's dependence on key suppliers puts NTIC at risk of interruptions in the availability of its products, which could reduce its net sales and adversely affect its operating results and harm its reputation.
- NTIC's dependence on key suppliers puts NTIC at risk of interruptions in the availability of its products, which could reduce its net sales and adversely affect its operating results and harm its reputation.
- Increases in prices for raw materials and components used in NTIC's products could adversely affect NTIC's operating results.
- NTIC relies on others for its production and any interruptions of these arrangements could disrupt NTIC's ability to fill its customers' orders.
- Changes to trade regulation, quotas, duties, or tariffs, caused by the changing U.S. and geopolitical environments or otherwise, may negatively impact NTIC's business, operating results, and financial condition.
- Global credit and financial markets in the past have experienced disruptions, including diminished liquidity and credit availability and rapid fluctuations in market valuations, which, if they happen again, could negatively impact NTIC's business, operating results, and financial condition.
- NTIC has limited staffing, faces challenges caused by its aging workforce and given its limited resources, it may not effectively manage its growth.

Risks Related to NTIC's Joint Ventures

- NTIC's liquidity and financial position rely on the receipt of fees for services provided to its joint ventures and dividend distributions from its joint ventures. No assurance can be provided that NTIC will continue to receive such fees and dividend distributions in amounts NTIC historically has received or anticipates receiving.
- Since a significant portion of NTIC's earnings results from its equity income from joint ventures which varies quarter to quarter, NTIC's earnings are subject to quarterly fluctuations.

Risks Related to NTIC's International Operations and the Foreign Markets in which NTIC Operates

- NTIC's international business, which is conducted primarily through its subsidiaries and joint ventures, requires management attention and financial resources and exposes NTIC to difficulties and risks presented by international economic, political, legal, accounting, and business factors.
- If sales of NTIC's products and services by its joint venture in Germany were to decline significantly or if NTIC's relationships with this joint venture were to deteriorate significantly, NTIC's operating results likely would be adversely affected.
- NTIC's recent acquisition of the remaining 50% ownership interest of Harita-NTI and any future similar acquisitions involve risk.
- NTIC China's operations may be adversely affected by China's evolving economic, political, and social conditions and intellectual property rights are difficult to enforce in China, which could harm NTIC's business, results of operations, or financial condition.
- Uncertainties with respect to the Chinese legal system may adversely affect the operations of NTIC China.
- Failure to comply with the U.S. Foreign Corrupt Practices Act could subject NTIC to penalties and legal expenses.
- Fluctuations in foreign currency exchange rates could result in declines in NTIC's earnings and changes in NTIC's foreign currency translation adjustments.

- Economic uncertainty in developing markets could adversely affect NTIC's revenue and earnings.

Risks Related to NTIC's Products

- NTIC faces intense competition in almost all of its product lines, including from competitors that have substantially greater resources than NTIC does. No assurance can be provided that NTIC will be able to compete effectively, which would harm its business and operating results.
- NTIC's ZERUST® rust and corrosion inhibiting products and services generate a significant portion of NTIC's net sales and the net sales of NTIC's joint ventures. Accordingly, if sales of these products and services were to decline, NTIC's operating results would be adversely affected.
- If NTIC is unable to continue to enhance its existing products and develop and market new products that respond to customer needs and achieve market acceptance, NTIC may experience a decrease in demand for its products, and its business could suffer.
- No assurance can be provided that NTIC's investments in additional research and development and marketing efforts and resources into the application of its corrosion prevention solutions into the oil and gas industry and the continued launch of its Natur-Tec® resin compounds and finished products will be successful.
- NTIC's strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing the expansion of its Natur-Tec® bioplastics resin compounds and finished products is risky and may not prove to be successful, which could harm NTIC's operating results and financial condition.
- NTIC's dependence on manufacturing and logistical services provided by contractors could give rise to product defect or warranty liability.
- The commercial success of NTIC's Natur-Tec® resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio-based and biodegradable resins.
- NTIC relies on its joint ventures, distributors, manufacturer's sales representatives, and other agents to market and sell its products.
- NTIC may be subject to product liability claims or other claims arising out of the activities of its joint ventures, which could adversely affect NTIC and its business, and the sale of ZERUST® rust and corrosion inhibiting products into the oil and gas industry is risky in light of the hazards typically associated with such operations and the significant amount of potential liability involved.
- The sale of ZERUST® rust and corrosion inhibiting products into the oil and gas industry is somewhat seasonal and dependent upon oil prices.
- The expansion of NTIC's corrosion prevention solutions into the oil and gas industry and the continued launch of NTIC's Natur-Tec® resin compounds and finished products may require additional capital in the future, which may not be available or may be available only on unfavorable terms.

Risks Related to Governmental Regulation, Laws, and Compliance

- NTIC's business, properties, and products are subject to governmental regulation and taxes, compliance with which may require NTIC to incur expenses or modify its products or operations, and which may expose NTIC to penalties for non-compliance. Governmental regulation also may adversely affect the demand for some of NTIC's products and its operating results.
- Fluctuations in NTIC's effective tax rate could have a significant impact on NTIC's financial position, results of operations, or cash flows.
- Certain of NTIC's operations are subject to regulation by the U.S. Food and Drug Administration.
- NTIC's reliance upon patents, trademark laws, trade secrets, and contractual provisions to protect its proprietary rights may not be sufficient to protect its intellectual property.
- NTIC's compliance with generally accepted accounting principles any changes in such principles might adversely affect NTIC's operating results and financial condition.

Risks Related to NTIC's Common Stock

- The trading volume of NTIC's common stock is typically very low, leaving NTIC's common stock open to risk of high volatility and the price and trading volume has been, and may continue to be, volatile.
- A large percentage of NTIC's outstanding common stock is held by insiders, and, as a result, the trading market for NTIC's common stock is not as liquid as the stock of other public companies.

Risks Related to NTIC's Business and Industry

Any weakness in the global economy, and in particular in the United States, Europe, India and China, and in the automotive industry, may negatively impact NTIC's business, operating results, and financial condition.

The U.S. and world economies may suffer from uncertainty, volatility, disruption, and other adverse conditions, such as the impact of the COVID-19 pandemic, and those conditions have adversely impacted and may continue to adversely impact the business community and the financial markets. Adverse economic and financial market conditions may negatively affect NTIC's customers and its markets, thereby negatively impacting its business and operating results. For example, weak market conditions could extend the length of NTIC's sales cycle and cause potential customers to delay, defer, or decline to make purchases of NTIC's products and services due to uncertainties surrounding the future performance of their businesses, limitations on their capital expenditures due to internal budget constraints, the inability to obtain financing in the capital markets, and the adverse effects of the economy on their business and financial condition. As a result, if economic and financial market conditions weaken or deteriorate, then NTIC's business, financial condition, and operating results, including its ability to grow and expand its business and operations, could be materially and adversely affected.

NTIC's operating results are especially dependent upon the economic health of the economies in the United States, Europe, India and China. Since a significant portion of NTIC's ZERUST® rust and corrosion inhibiting products and services are sold to customers in the automotive industry, adverse economic conditions affecting the automotive industry, in particular, may result in an adverse effect on NTIC's net sales and its other operating results. Accordingly, any weakness in the global economy, particularly the United States, Europe, India and China, and in the automotive industry, including decreased production resulting from the ongoing microchip shortage, have negatively impacted and may continue to negatively impact NTIC's business, operating results, and financial condition.

The COVID-19 pandemic has adversely impacted and will likely continue to adversely impact NTIC's business, operating results and financial condition.

The COVID-19 pandemic has resulted in a periodic, substantial curtailment of business activities worldwide and has caused, and may again cause, recessionary economic conditions in many countries, including the United States and many countries abroad. As part of efforts to contain the spread of COVID-19, many state, local and foreign governments at times imposed various restrictions on the conduct of business and travel, including lockdowns imposed in parts of China and India during fiscal 2021. While some of these restrictions have been curtailed or lifted, others have been reinstated or may be reinstated in the future. Government restrictions, such as stay-at-home orders, quarantines and worker absenteeism as a result of COVID-19 have led to a significant number of business closures and slowdowns. These business closures and slowdowns adversely impacted, and will likely continue to adversely impact, NTIC directly and have caused its customers and suppliers to slow or stop production, which has significantly disrupted and will likely continue to significantly disrupt NTIC's sales, production and supply chain. These and other factors, such as uncertainty due to the Delta variant and other COVID-19 variants that may arise, contributed to NTIC experiencing significantly decreased global demand for its products and services during fiscal 2021 and fiscal 2020 and increased supply chain and shipping costs and disruptions, which will likely continue during fiscal 2022. This significantly decreased demand has had, and will likely continue to have, a material adverse effect on NTIC's business, operating results and financial condition in fiscal 2022. Due to the international reach of COVID-19, NTIC anticipates that its international joint ventures will continue to be adversely impacted by the causes listed above, as well as other local issues that may arise, which will likely continue to have a material adverse effect on NTIC's joint venture operations and equity in income from joint ventures. It is currently not possible to predict the precise potential impact, as well as the extent of any impact, of the COVID-19 pandemic on NTIC's business, and on the global economy as a whole. It is also currently not possible to predict how long the pandemic will last or the time that it will take for economic activity to return to prior levels or supply chain disruptions to cease. A prolonged situation could have a significant adverse effect on economies and financial markets globally, potentially deepening the current worldwide economic downturn, which could have a significant adverse effect on NTIC's business, operating results and financial condition.

The extent to which the COVID-19 pandemic impacts NTIC's business will likely depend on numerous evolving factors that NTIC may not be able to accurately predict, including:

- the duration and scope of the pandemic;
- governmental, business and individuals' actions that have been and continue to be taken in response to the pandemic;
- the availability, acceptance and efficacy of vaccines;
- the spread of COVID-19 variants;
- the impact of the pandemic on economic activity and actions taken in response;
- the effect on NTIC's customers and demand for its products and services;
- NTIC's ability to continue to manufacture and sell its products and services, including as a result of travel restrictions and people working from home;
- the ability of NTIC's customers to pay for its products and services; and
- any closures of NTIC's facilities and the facilities of its customers and suppliers.

Any of these events could materially adversely affect NTIC's business, operating results and financial condition. In addition, the COVID-19 pandemic has already adversely affected and could continue to adversely affect NTIC's stock price.

Supply chain disruptions could interrupt product manufacturing, increase product costs and result in lost sales, which may have a material adverse effect on NTIC's business, operating results and financial condition.

Supply chain disruptions, resulting from factors such as the COVID-19 pandemic, labor supply shortages and shipping container shortages, have impacted, and may continue to impact, NTIC and its third-party manufacturers. These disruptions have resulted in longer lead times and increased product costs and shipping expenses. While NTIC has taken steps to minimize the impact of these increased costs by working closely with its suppliers and customers, there can be no assurances that unforeseen events impacting the supply chain will not have a material adverse effect on NTIC in the future. Additionally, the impacts supply chain disruptions have on NTIC's third-party manufacturers are not within NTIC's control. It is not currently possible to predict how long it will take for these supply chain disruptions to cease. Prolonged supply chain disruptions impacting NTIC and its third-party manufacturers could interrupt product manufacturing, increase product costs and result in lost sales, which may have a material adverse effect on NTIC's business, operating results and financial condition.

Disruptions to the distribution channels for NTIC's products may negatively impact NTIC's business, operating results, and financial condition.

During fiscal 2021, supply chain disruptions began to emerge because of the COVID-19 pandemic, shipping container shortages, and the changes in global demand. Ocean freight capacity issues continue to persist worldwide as there is much greater demand for shipping and reduced capacity and equipment, which has resulted in significantly longer shipping times and significant price increases per shipping container. Shipping companies are charging priority booking fees to allocate space as they have fewer ships and workers operating. While NTIC continues to manage and evaluate its freight carriers, there is no indication that these shipping delays and increased shipping container rates will return to historical levels in the near-term, and these delays and increases could have a material adverse effect on NTIC's consolidated results of operations. Furthermore, transportation delays, increases on shipping containers, more extensive travel restrictions, closures or disruptions of businesses and facilities or social, economic, political or labor instability in the affected areas may impact the operations of NTIC's suppliers, which could in turn adversely affect NTIC, and its revenues and operating costs. Any of these disruptions may negatively impact NTIC's business, operating results, and financial condition.

NTIC's dependence on key suppliers puts NTIC at risk of interruptions in the availability of its products, which could reduce its net sales and adversely affect its operating results and harm its reputation.

NTIC relies on suppliers for certain raw materials and components used in its products. For reasons of quality assurance, cost effectiveness, or availability, NTIC procures certain raw materials and components from sole or limited source suppliers. Among the limited source suppliers NTIC does business with are the manufacturers of plastic resins used in Natur-Tec® products. NTIC generally acquires these and other raw materials and components through purchase orders placed in the ordinary course of business, and as a result, NTIC does not have a significant inventory of these materials and components and does not have any guaranteed or contractual supply arrangements with many of these suppliers for these materials and components. NTIC's dependence on third-party suppliers involves several risks, including limited control over pricing, availability, quality, and delivery schedules, as well as manufacturing yields and costs. Suppliers of such raw materials and components may decide, or be required, for reasons beyond NTIC's control, to cease supplying such raw materials and components to NTIC or to raise their prices.

Shortages of raw materials, quality control problems, production capacity constraints, or delays by suppliers could negatively affect NTIC's ability to meet its production obligations and result in increased prices for affected parts. For example, the rapid growth in demand for bioplastics products globally has increased the demand and the price for plastic resins, and limited suppliers of such plastic resins may experience shortages caused by demand outpacing their production capabilities, which could result in NTIC's inability to produce its Natur-Tec® products promptly or in the volumes demanded. Additionally, the impact of the COVID-19 pandemic has caused supply shortages, which also could result in NTIC's inability to produce its Natur-Tec® products. These and other shortages, constraints, or delays may result in delays in shipments of products or components, which could adversely affect NTIC's net sales and other operating results and its reputation. From time to time, materials and components used in NTIC's products are subject to allocation because of shortages of these materials and components.

Increases in prices for raw materials and components used in NTIC's products could adversely affect NTIC's operating results.

NTIC uses certain raw materials and components in its products, including in particular plastic resins, which are subject to price increases. In light of increased global demand for bioplastics, the prices of certain plastic resins have increased, which could adversely affect gross margins on NTIC's Natur-Tec® products. The COVID-19 pandemic has caused additional shortages in certain raw materials and components, which could adversely affect the cost and/or production of NTIC's products. Additionally, changes to international trade agreements could result in additional tariffs, duties, or other charges on raw materials or components we import into the U.S. Increases in prices for raw materials and components used in NTIC's products could adversely affect NTIC's gross margins and other operating results.

NTIC relies on others for its production and any interruptions of these arrangements could disrupt NTIC's ability to fill its customers' orders.

NTIC utilizes contract manufacturers for a significant portion of its production requirements. The majority of NTIC's manufacturing is conducted in the United States by contract manufacturers that also perform services for numerous other companies. NTIC does not have a guaranteed level of production capacity with any of its contract manufacturers. Qualifying new contract manufacturers is time consuming and might result in unforeseen manufacturing and operations problems. The loss of NTIC's relationships with its contract manufacturers or their inability to conduct their manufacturing and assembly services for NTIC as anticipated in terms of capacity, cost, quality, and timeliness could adversely affect NTIC's ability to fill customer orders in accordance with required delivery, quality, and performance requirements, thus adversely affecting NTIC's net sales and other operating results.

Changes to trade regulation, quotas, duties, or tariffs, caused by the changing U.S. and geopolitical environments or otherwise, may negatively impact NTIC's business, operating results, and financial condition.

There is significant uncertainty about the future relationship between the United States and other countries with respect to trade policies, taxes, government regulations, and tariffs. The Trump administration had signaled support for implementing and, in some instances, proposed or took action with respect to major changes to certain trade policies in an effort to encourage U.S. production. Such changes included the imposition of additional tariffs on imported products in an effort to address trade imbalances, specifically with China, the withdrawal of the U.S. from the Trans-Pacific Partnership, and the renegotiation of the North American Free Trade Agreement. In response to such actions, certain countries imposed retaliatory actions against the U.S. NTIC and its subsidiaries and joint ventures engage in sales outside of the United States and is, therefore, negatively impacted by such actions. Any changes or potential changes in trade policies in the United States, including changes made by the Biden administration, and the potential corresponding actions by other countries in which NTIC does business could adversely and materially affect NTIC's business, results of operations, and financial condition.

Global credit and financial markets in the past have experienced disruptions, including diminished liquidity and credit availability and rapid fluctuations in market valuations, which, if they happen again, could negatively impact NTIC's business, operating results, and financial condition.

Any tightening of the credit and financial markets could negatively impact the ability of companies to borrow money from their existing lenders, obtain credit from other sources, or raise financing to fund their operations. This could negatively impact the ability of NTIC's customers and the customers of NTIC's joint ventures to purchase NTIC's products, suppliers' ability to provide NTIC and its joint ventures with materials and components, and the ability of NTIC and its joint ventures, distributors, and sales representatives to finance operations, if needed, on commercially reasonable terms, or at all. Any or all of these events could negatively impact NTIC's business, operating results, and financial condition. Although NTIC maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers, distributors, and joint ventures to make required payments, and such losses historically have been within NTIC's expectations and the provisions established, NTIC cannot guarantee that it will continue to experience the same loss rates that it has in the past, especially if there are weaknesses in the worldwide economy. A significant change in the liquidity or financial condition of NTIC's customers, distributors, or joint ventures could cause unfavorable trends in NTIC's receivable collections and additional allowances may be required, which could adversely affect NTIC's operating results. In addition, weaknesses in the worldwide economy, including the imposition of higher tariffs and withdrawal from the Trans-Pacific Partnership, may adversely impact the ability of suppliers to provide NTIC with materials and components, which could adversely affect NTIC's business and operating results. NTIC is unable to predict the prospects for a global economic recovery, but the longer the duration of such adverse and uncertain economic conditions, the greater the risks NTIC faces in operating its business.

NTIC has limited staffing and will continue to be dependent upon key employees.

NTIC's success is dependent upon the efforts of a small management team and group of employees. NTIC's future success will depend in large part on its ability to retain its key employees and identify, attract, and retain other highly qualified managerial, technical, research and development, sales and marketing, and customer service personnel when needed. Competition for these individuals may be intense, especially in the markets in which NTIC operates. NTIC may not succeed in identifying, attracting, and retaining these personnel. Inadequate performance by any of NTIC's limited staff could have a negative impact on the performance of the company. In addition, none of NTIC's employees have any contractual obligation to maintain his or her employment with NTIC. The loss or interruption of services of any of NTIC's key personnel, including in particular its technical personnel, the inability to identify, attract, or retain qualified personnel in the future, delays in hiring qualified personnel, or any employee slowdowns, strikes, or similar actions could make it difficult for NTIC to manage its business and meet key objectives, which could harm NTIC's business, operating results, and financial condition.

Although we have not experienced any material labor shortage to date, we have recently observed an overall tightening and increasingly competitive labor market. A sustained labor shortage or increased turnover rates within our employee base, caused by COVID-19 or as a result of general macroeconomic factors, could lead to increased costs, such as increased overtime to meet demand and increased wage rates to attract and retain employees, and could negatively affect our ability to efficiently operate our manufacturing and distribution facilities and overall business. If we are unable to hire and retain employees capable of performing at a high-level, or if mitigation measures we may take to respond to a decrease in labor availability, such as overtime and third-party outsourcing, have unintended negative effects, our business could be adversely affected. An overall labor shortage, lack of skilled labor, increased turnover or labor inflation, caused by COVID-19 or as a result of general macroeconomic factors, could have a material adverse impact on NTIC's operations, results of operations, liquidity or cash flows.

NTIC faces challenges caused by its aging workforce, and NTIC may not be able to recruit, train and retain adequate replacements for its qualified and skilled employees.

Many of our employees are approaching retirement age. As these experienced employees retire, we may have difficulty recruiting new employees with comparable qualifications and experience, and we may be unable to transfer our employees' institutional knowledge successfully to new qualified employees. Any such failures would be exacerbated at times of peak demand. Our failure to recruit and train new employees and to ensure they obtain the adequate qualifications and experience could result in reduced revenues, loss of customer goodwill and a material negative impact on our results of operations.

Given NTIC's limited resources, it may not effectively manage its growth.

NTIC's strategy to grow its business, including in particular its ZERUST® rust and corrosion inhibiting products for the oil and gas industry and its Natur-Tec® bio-plastic resin compounds and finished products, requires significant management time and operational and financial resources. There is no assurance that NTIC has the necessary operational and financial resources to manage its growth. This is especially true as it expands facilities and manufactures its products on a larger commercial scale. In addition, rapid growth in NTIC's headcount and operations may place a significant strain on its management, administrative, operational, and financial infrastructure. Failure to adequately manage its growth could have a material and adverse effect on NTIC's business, operating results, and financial condition. For example, NTIC's soil side bottom solutions for tanks require implementation teams comprised of both internal NTIC personnel and outside consulting firms. NTIC's failure to expand these implementation teams to service additional customers may limit NTIC's ability to grow this business. In addition, NTIC may not be successful in its strategy to grow its business.

Risks Related to NTIC's Joint Ventures

NTIC's liquidity and financial position rely on the receipt of fees for services provided to its joint ventures and dividend distributions from its joint ventures. No assurance can be provided that NTIC will continue to receive such fees and dividend distributions in amounts NTIC historically has received or anticipates receiving.

NTIC conducts business, either directly or indirectly, through several joint venture arrangements that operate in North America, Europe, and Asia. Each of these joint ventures manufactures, markets, and sells finished products in the geographic territory that it is assigned. NTIC's receipt of funds as a result of sales by its joint ventures is dependent upon NTIC's receipt of fees for services that NTIC provides to its joint ventures based primarily on the net sales of the individual joint ventures and NTIC's receipt of dividend distributions from its joint ventures based on the profitability of its joint ventures. NTIC's liquidity and financial position in part rely on NTIC's receipt of fees for services that NTIC provides to its joint ventures and dividend distributions from its joint ventures. During fiscal 2021, NTIC recognized $5,964,260 in fees and $3,665,365 in dividend distributions from its joint ventures. Because NTIC owns 50% or less of each of its joint venture entities, NTIC does not control the decisions of these entities regarding whether to pay dividends and, if paid, how much they should be in any given year. Thus, NTIC cannot guarantee that any of its joint ventures will pay dividends in any given year. The failure of NTIC's joint ventures to declare dividends or the failure of NTIC to receive fees for services provided to joint ventures in amounts typically expected by NTIC could adversely affect NTIC's liquidity and financial position.

Since a significant portion of NTIC's earnings results from NTIC's equity income from joint ventures, and since NTIC's equity income from joint ventures varies from quarter to quarter, NTIC's earnings are subject to quarterly fluctuations.

A significant portion of NTIC's earnings results from NTIC's equity income from its joint ventures. NTIC's equity in income from joint ventures consists of NTIC's share of equity in income from its joint ventures based on the overall profitability of the joint ventures. Such profitability varies from quarter to quarter. Since NTIC's management typically receives quarterly joint venture financial information after the completion of each fiscal quarter, it is impossible for NTIC's management to cut costs and expenses to make up for any unanticipated shortfall in NTIC's equity income from joint ventures. Accordingly, the variability in NTIC's equity income from joint ventures, in turn, subjects NTIC's earnings to quarterly fluctuations.

Risks Related to NTIC's International Business and the Foreign Markets in which NTIC Operates

NTIC's international business, which is conducted primarily through its subsidiaries and joint ventures, requires management attention and financial resources and exposes NTIC to difficulties and risks presented by international economic, political, legal, accounting, and business factors.

NTIC sells products and services directly, through its wholly-owned and majority-owned subsidiaries, and indirectly, via a network of joint ventures, independent distributors, manufacturer's sales representatives, and agents in over 65 countries, including countries in North America, South America, Europe, Asia, and the Middle East. One of NTIC's strategic objectives is the continued expansion of its international operations. The expansion of NTIC's existing international operations and entry into additional international markets requires management attention and financial resources.

The sale and shipping of products and services across international borders subjects NTIC to extensive and complicated U.S. and foreign governmental trade regulations. Compliance with such regulations is costly and exposes NTIC to penalties for non-compliance. Other laws and regulations that can significantly impact NTIC include various anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, laws restricting business with suspected terrorists, and anti-boycott laws. Any failure to comply with applicable legal and regulatory obligations could impact NTIC in a variety of ways that include, but are not limited to, significant criminal, civil, and administrative penalties, including imprisonment of individuals, fines and penalties, denial of export privileges, seizure of shipments, and restrictions on certain business activities. Also, the failure to comply with applicable legal and regulatory obligations could result in the disruption of NTIC's shipping and sales activities.

Several factors, including implications of withdrawal by the U.S. from, or revision to, international trade agreements, foreign policy changes between the U.S. and other countries, weakened international economic conditions, or the impact of sovereign debt defaults by certain European countries, could adversely affect our international net sales. Additionally, the expansion of our existing international operations and entry into additional international markets require significant management attention and financial resources. In many of the countries in which NTIC sells its products directly or indirectly through NTIC China, Zerust Brazil, Natur-Tec India, Natur-Tec Lanka, Zerust Mexico, Zerust Singapore, Zerust Vietnam and NTI Asean, its joint ventures, distributors, representatives, and agents are, to some degree, subject to political, economic, and/or social instability. NTIC's international operations expose NTIC and its joint venture partners, distributors, representatives, and agents to risks inherent in operating in foreign jurisdictions. These risks include:

- difficulties in managing and staffing international operations and the required infrastructure costs, including legal, tax, accounting, and information technology;
- the imposition of additional U.S. and foreign governmental controls or regulations, new trade restrictions, and restrictions on the activities of foreign agents, representatives, and distributors, the imposition of costly and lengthy export licensing requirements and changes in duties and tariffs, license obligations, and other non-tariff barriers to trade;
- the imposition of U.S. and/or international sanctions against a country, company, person, or entity with whom NTIC does business that would restrict or prohibit continued business with the sanctioned country, company, person, or entity;
- pricing pressure that NTIC or its joint ventures, distributors, representatives, and agents may experience internationally;
- laws and business practices favoring local companies;
- adverse currency exchange rate fluctuations;
- longer payment cycles and difficulties enforcing agreements and collecting receivables through certain foreign legal systems;
- national and international conflicts, including foreign policy changes or terrorist acts;
- difficulties in enforcing or defending intellectual property rights;
- multiple, changing, and often inconsistent enforcement of laws and regulations; and
- the potential payment of U.S. income taxes on certain earnings of joint ventures upon repatriation.

Furthermore, in June 2016, the United Kingdom held a referendum in which voters approved an exit from the European Union, commonly referred to as "Brexit." The United Kingdom officially terminated its membership of the European Union on January 31, 2020 and remained in a transition phase until December 31, 2020. The British government continues to negotiate the terms of the United Kingdom's future relationship with the European Union. Although it is unknown what those terms will be, or whether an agreement will be reached, it is possible that there will be increased regulatory complexities, which could affect NTIC's ability to sell its products in certain European Union countries. Brexit has created legal, political and economic uncertainty, which could subject NTIC to heightened risks in that region, including disruptions to trade and free movement of goods, services, and people to and from the United Kingdom, and increased foreign exchange volatility with respect to the British pound. NTIC does not know to what extent these changes will impact its business. Any of these effects of Brexit, and other similar referenda that NTIC cannot anticipate, could adversely affect its business, operations, and financial results.

Out of NTIC's joint ventures, NTIC's joint venture in Germany is the most significant in terms of assets and income to NTIC. If sales of NTIC's products and services by this joint venture were to decline significantly or if NTIC's relationships with this joint venture were to deteriorate significantly, NTIC's operating results likely would be adversely affected.

NTIC considers its joint venture in Germany (EXCOR) to be individually significant to NTIC's consolidated assets and income and, therefore, provides certain additional information regarding EXCOR in the notes to NTIC's consolidated financial statements and in certain sections of this report, in addition to a few other entities for fiscal 2020. Of the total equity in income from joint ventures of $7,465,214 during fiscal 2021, NTIC had equity in income from joint ventures of $4,400,403 attributable to EXCOR. Of the total fee income for services provided to joint ventures of $5,964,260 during fiscal 2021, fees of $920,902 were attributable to EXCOR. Accordingly, if sales of NTIC's products and services by this joint venture were to decline significantly or if NTIC's relationships with this joint venture were to deteriorate significantly such that the joint venture terminated or was not motivated to sell NTIC's products and services, NTIC's operating results likely would be adversely affected. While this is also true with respect to the other joint venture entities of which additional information is provided in NTIC's consolidated financial statements and in certain other sections of this report, the significance is not as great as with EXCOR.

NTIC's recent acquisition of the remaining 50% ownership interest of Harita-NTI and any future similar acquisitions involve risk.

Effective as of September 1, 2021, NTIC acquired the remaining 50% ownership interest in its Indian joint venture, Harita-NTI. It is possible that as part of its succession planning efforts with respect to its joint venture partners that NTIC may complete similar acquisitions in the future. Similar future acquisitions will depend, in part, on the availability of similar opportunities or other suitable acquisition candidates at acceptable prices, terms, and conditions and the availability of capital and personnel resources to complete such acquisitions and run and integrate the acquired business effectively. These acquisitions involve risk and may harm NTIC's business, reputation, financial condition, and operating results. For instance, the benefits of the recent Harita-NTI acquisition or any future acquisition may take more time than expected to develop or integrate into NTIC's operations, and NTIC cannot guarantee that either the Harita-NTI or any future acquisitions will, in fact, produce any benefits. Acquisitions, including the recent Harita-NTI acquisition, involve a number of risks, the occurrence of which could adversely affect NTIC's business, reputation, financial condition, and operating results, including:

- diversion of management's attention to manage and integrate the acquired business;
- disruption to existing operations and plans;
- inability to effectively manage the expanded operations;
- difficulties or delays, which may be exacerbated by the impact of COVID-19, in integrating and assimilating information and financial systems, internal controls, operations, manufacturing processes and products of an acquired business or in realizing projected efficiencies, growth prospects, cost savings, and other synergies;
- potential loss of key employees, customers or suppliers of the acquired businesses or adverse effects on existing business relationships with employees, customers or suppliers;
- write-off of significant amounts of goodwill, other intangible assets, and/or long-lived assets as a result of deterioration in the performance of an acquired business, adverse market conditions, changes in the competitive landscape, changes in laws or regulations that restrict activities of an acquired business, or as a result of a variety of other circumstances;
- violation of confidentiality, intellectual property, and non-compete obligations or agreements by employees of an acquired business or lack of or inadequate formal intellectual property protection mechanisms in place at an acquired business;
- adverse impact on overall profitability if NTIC's expanded operations do not achieve the growth prospects, net sales, net earnings, cost and/or revenue synergies, or other financial results projected in NTIC's valuation models, delays in the realization thereof or costs or charges incurred to achieve any revenue or cost synergies;
- reallocation of amounts of capital from other operating initiatives and/or an increase in leverage and debt service requirements to pay acquisition purchase prices, which could in turn restrict NTIC's ability to access additional capital when needed or limit its ability to pursue other important elements of its business strategy;
- inaccurate assessment of additional post-acquisition, undisclosed, contingent or other liabilities or problems, unanticipated costs associated with an acquisition; and

- impacts as a result of purchase accounting adjustments, incorrect estimates made in the accounting for acquisitions, incurrence of non-recurring charges, or other potential financial accounting or reporting impacts.

In addition, effective internal controls are necessary for NTIC to provide reliable and accurate financial reports and to effectively prevent fraud. The integration of acquired businesses may result in NTIC's systems and controls becoming increasingly complex and more difficult to manage. NTIC devotes significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes-Oxley Act of 2002. However, it cannot be certain that these measures will ensure that NTIC designs, implements, and maintains adequate control over its financial processes and reporting in the future, particularly in the context of acquisitions of other businesses. Any difficulties in the assimilation of acquired businesses into NTIC's internal control framework could harm its operating results or cause NTIC to fail to meet its financial reporting obligations. Also, acquisitions require the consent of PNC Bank, National Association under NTIC's loan agreement with PNC Bank. NTIC cannot predict whether such approvals would be forthcoming or the terms on which PNC Bank would approve such acquisitions. These risks, among others, could be heightened if NTIC completes a large acquisition or multiple transactions within a relatively short period of time.

The operations of NTIC China may be adversely affected by China's evolving economic, political, and social conditions.

The results of operations and future prospects of NTIC China may be adversely affected by, among other things, changes in China's political, economic, and social conditions, changes in the relationship between China and its western trade partners, changes in policies of the Chinese government, changes in laws and regulations or in the interpretation of existing laws and regulations, changes in foreign exchange regulations, measures that may be introduced to control inflation, such as interest rate increases, and changes in the rates or methods of taxation. In addition, changes in demand could result from increased competition with local Chinese manufacturers who have cost advantages or who may be preferred suppliers for Chinese end users. Also, Chinese commercial laws, regulations, and interpretations applicable to non-Chinese owned market participants, such as NTIC China, are continually changing. These laws, regulations, and interpretations could impose restrictions on NTIC's and NTIC China's ownership or operations or NTIC's interests in China and could adversely affect NTIC's business, results of operations, and financial condition.

Local regulations in China related to the recent electric power shortage may adversely affect NTIC China's operations. For example, these regulations could result in partial or complete factory shutdowns due to a lack of continuous supply of electrical power. Additionally, the price of electric power may be increased, and peak-demand periods during which prices are higher may be extended by local governments. Although NTIC China's operations have not been significantly impacted by regulations related to electric power shortages to date, such regulations may in the future decrease or shut down production or increase product costs, which could adversely affect NTIC's business, results of operations, and financial condition.

Intellectual property rights are difficult to enforce in China, which could harm NTIC's business, results of operations, or financial condition.

Chinese commercial law is relatively undeveloped compared to commercial law in many of NTIC's other major markets, and limited protection of intellectual property is available in China as a practical matter. Although NTIC takes precautions in the operation of NTIC China to protect NTIC's intellectual property, any local manufacturer of products that NTIC undertakes in China could subject NTIC to an increased risk that unauthorized parties will be able to copy or otherwise obtain or use NTIC's intellectual property, which could harm NTIC's business. NTIC may also have limited legal recourse in the event it encounters patent or trademark infringers, which could adversely affect NTIC's business, results of operations, and financial condition.

Uncertainties with respect to the Chinese legal system may adversely affect the operations of NTIC China.

NTIC China is subject to laws and regulations applicable to foreign investment in China. There are uncertainties regarding the interpretation and enforcement of laws, rules, and policies in China. The Chinese legal system is based on written statutes, and prior court decisions have limited precedential value. Because many laws and regulations are relatively new, and the Chinese legal system is still evolving, the interpretations of many laws, regulations, and rules are not always uniform. Moreover, the relative inexperience of China's judiciary in many cases creates additional uncertainty as to the outcome of any litigation, and the interpretation of statutes and regulations may be subject to government policies reflecting domestic political agendas. Finally, enforcement of existing laws or contracts based on existing law may be uncertain and sporadic. For the preceding reasons, it may be difficult for NTIC or NTIC China to obtain timely or equitable enforcement of laws ostensibly designed to protect companies like NTIC or NTIC China, which could adversely affect NTIC's business, results of operations, and financial condition.

Failure to comply with the U.S. Foreign Corrupt Practices Act could subject NTIC to, among other things, penalties and legal expenses that could harm its reputation and have a material adverse effect on its business, results of operations, and financial condition.

NTIC is subject to the U.S. Foreign Corrupt Practices Act, or the FCPA, which generally prohibits covered entities and their intermediaries from engaging in bribery or making other prohibited payments to foreign officials for the purpose of obtaining or retaining business or other benefits. In addition, the FCPA imposes accounting standards and requirements on U.S. publicly-traded corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments and to prevent the establishment of "off books" slush funds from which such improper payments can be made. NTIC also is subject to similar anticorruption legislation implemented in Europe under the Organization for Economic Co-operation and Development's Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. NTIC and its joint ventures, distributors, independent representatives, and agents operate in a number of jurisdictions that pose a high risk of potential violations of the FCPA and other anticorruption laws, based on measurements such as Transparency International's Corruption Perception Index, and NTIC utilizes a number of joint ventures, distributors, independent representatives, and agents for whose actions NTIC could be held liable under the FCPA. NTIC informs its personnel, joint ventures, distributors, independent representatives, and agents of the requirements of the FCPA and other anticorruption laws, including, but not limited to, their reporting requirements. NTIC also has developed and will continue to develop and implement systems for formalizing its contracting processes, performing due diligence on agents, and improving its recordkeeping and auditing practices regarding these regulations. However, there is no guarantee that NTIC's employees, joint ventures, distributors, independent representatives, or other agents have not or will not engage in conduct undetected by NTIC's processes and for which NTIC might be held responsible under the FCPA or other anticorruption laws.

If NTIC's employees, joint ventures, distributors, third-party sales representatives, or other agents are found to have engaged in such practices, NTIC could suffer severe penalties, including criminal and civil penalties, disgorgement, and other remedial measures, including further changes or enhancements to its procedures, policies, and controls and potential personnel changes and disciplinary actions.

Certain private and foreign companies, including some of NTIC's competitors, are not subject to prohibitions as strict as those under the FCPA or, even if subjected to strict prohibitions, such prohibitions may be laxly enforced in practice. If NTIC's competitors engage in corruption, extortion, bribery, pay-offs, theft, or other fraudulent practices, they may receive preferential treatment from personnel of some companies or from government officials, giving NTIC's competitors an advantage in securing business and putting NTIC at a disadvantage.

Fluctuations in foreign currency exchange rates could result in declines in NTIC's earnings and changes in NTIC's foreign currency translation adjustments.

Because the functional currency of NTIC's foreign operations is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese Yen, the Indian Rupee, the Chinese Renminbi, the South Korean Won, and the English Pound against the U.S. dollar. NTIC's fees for services provided to its joint ventures and dividend distributions from these foreign entities are paid in foreign currencies; thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's earnings. Any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

Economic uncertainty in developing markets could adversely affect NTIC's revenue and earnings.

NTIC conducts business, or is contemplating expansion, in developing markets with economies that tend to be more volatile than those in the United States and Western Europe. The risk of doing business in developing markets such as China, Brazil, India, Russia, the United Arab Emirates, Mexico, and other economically volatile areas could adversely affect NTIC's operations and earnings. Such risks include the financial instability among customers in these regions, political instability, fraud or corruption, and other non-economic factors, such as the impact of the COVID-19 pandemic and irregular trade flows that need to be managed successfully with the help of the local governments. In addition, commercial laws in some developing countries can be vague, inconsistently administered, and retroactively applied. If NTIC is deemed not to be in compliance with applicable laws in developing countries where NTIC conducts business, its prospects and business in those countries could be harmed, which could then have a material adverse impact on NTIC's operating results and financial position. NTIC's failure to successfully manage economic, political, and other risks relating to doing business in developing countries and economically and politically volatile areas could adversely affect its business.

Risks Related to NTIC's Products

NTIC faces intense competition in almost all of its product lines, including from competitors that have substantially greater resources than NTIC does. No assurance can be provided that NTIC will be able to compete effectively, which would harm its business and operating results.

NTIC's products are sold in intensely competitive markets throughout the world. This intense competition could result in pricing pressures, lower sales, reduced margins, and lower market share. With respect to its rust and corrosion inhibiting products, NTIC competes on the basis of product innovation, quality, reliability, product support, customer service, reputation, and price. With respect to its Natur-Tec® resin compounds and finished products, NTIC competes on the basis of performance, brand awareness, distribution network, product availability, product offering, shelf life, place of manufacture, and price. NTIC often competes with numerous manufacturers, many of which have substantially greater financial, marketing, and other resources than NTIC. As a result, they may be able to adapt more quickly than NTIC to new or emerging technologies, industry trends, and changes in customer requirements or to devote greater resources to the promotion and sale of their products than NTIC. In addition, competition could increase if new companies enter the markets in which NTIC competes, especially when the barriers to entry are low, which may be true with respect to NTIC's rust and corrosion prevention business, or if existing competitors expand their product lines or intensify efforts within existing product lines. NTIC's current products, products under development, and its ability to develop new and improved products may be insufficient to enable NTIC to compete effectively with its competitors. No assurance can be provided that NTIC will be able to compete effectively, which would harm its business and operating results. In particular, NTIC has experienced more intense competition with respect to many of its traditional ZERUST® rust and corrosion inhibiting products and services, which has led to decreased pricing and smaller margins for NTIC. Recently, NTIC has experienced lower margins on its contracts with Chinese automotive customers. NTIC anticipates that such intense competition likely will continue and that new competitors may emerge, including plastic extrusion companies, which would continue to adversely affect NTIC's operating results.

NTIC's ZERUST® rust and corrosion inhibiting products and services generate a significant portion of NTIC's net sales and the net sales of NTIC's joint ventures. Accordingly, if sales of these products and services were to decline, NTIC's operating results would be adversely affected.

NTIC's ZERUST® rust and corrosion inhibiting products and services generate a significant portion of NTIC's net sales and the net sales of NTIC's joint ventures. During fiscal 2021, 80.6% of NTIC's consolidated net sales were derived from sales of ZERUST® rust and corrosion inhibiting products and services. While the net sales of NTIC's joint ventures are not included in NTIC's net sales on NTIC's consolidated financial statements, NTIC's receipt of fees for services that NTIC provides to its joint ventures and NTIC's receipt of dividend distributions from its joint ventures are based primarily on the revenues and profitability of the joint ventures. Accordingly, if sales of these products and services were to decline due to increased competition, the introduction of a new disruptive technology, or otherwise, NTIC's operating results would be adversely affected.

If NTIC is unable to continue to enhance its existing products and develop and market new products that respond to customer needs and achieve market acceptance, NTIC may experience a decrease in demand for its products, and its business could suffer.

One of NTIC's strategies is to enhance its existing products and develop and market new products that respond to customer needs. NTIC may not be able to compete effectively with its competitors unless NTIC can keep up with existing or new products or alternative technologies in the markets in which it competes. Product development requires significant research and development, financial, and other resources. Although in the past NTIC has implemented lean manufacturing and other productivity improvement initiatives to provide investment funding for new products, no assurance can be provided that NTIC will be able to continue to do so in the future. Product improvements and new product introductions also require significant planning, design, development, and testing at the technological, product, and manufacturing process levels, and NTIC may not be able to timely develop product improvements or new products. NTIC's competitors' new products may beat NTIC's products to market, may be more effective or less expensive than NTIC's products, or may render NTIC's products obsolete. Any new products that NTIC may develop may not receive market acceptance or otherwise generate any meaningful net sales or profits for NTIC relative to its expectations, based on, among other things, existing and anticipated investments in manufacturing capacity and commitments to fund advertising, marketing, promotional programs, and research and development.

NTIC has invested and intends to continue to invest additional research and development and marketing efforts and resources into the application of its corrosion prevention solutions into the oil and gas industry and the continued launch of its Natur-Tec® resin compounds and finished products. No assurance can be provided, however, that NTIC's investments in these new markets and products will be successful and result in additional revenue to NTIC.

In an effort to increase net sales, NTIC has expanded the marketing of its corrosion prevention solutions into the oil and gas industry and its Natur-Tec® resin compounds and finished products. NTIC expects to continue to invest additional research and development and marketing efforts and resources into these strategic initiatives. No assurance can be provided, however, that such strategic initiatives will be successful or that NTIC will be successful in obtaining additional revenue as a result of them. The introduction of new products into new markets takes significant resources, and there can be no assurance that NTIC is dedicating a sufficient amount of resources to ensure the success of these strategic initiatives. The sale of NTIC's ZERUST® rust and corrosion inhibiting products and services into the oil and gas industry, in particular, typically involves a long sales cycle, often including a one- to multi-year trial period with each customer and a slow integration process thereafter. This long sales cycle may cause NTIC's management, stockholders, and investors to lose faith in the business opportunities for NTIC's ZERUST® rust and corrosion inhibiting products and services in the oil and gas industry.

NTIC's strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing the expansion of its Natur-Tec® bioplastics resin compounds and finished products is risky and may not prove to be successful, which could harm NTIC's operating results and financial condition.

NTIC's strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing the expansion of its Natur-Tec® bioplastics resin compounds and finished products, either directly or indirectly through joint ventures and independent distributors and agents, is risky and subject to all of the risks inherent in the establishment of a new business enterprise, including:

- the absence of a significant operating history;
- the lack of commercialized products;
- the lack of market acceptance of new products;
- expected substantial and continual losses for such businesses for the foreseeable future;
- the lack of manufacturing experience and limited marketing experience;
- an expected reliance on third parties for the manufacture and commercialization of some of the products;
- a competitive environment characterized by numerous, well-established and well-capitalized competitors;
- insufficient capital and other resources; and
- reliance on key personnel.

NTIC's dependence on manufacturing and logistical services provided by contractors could give rise to product defect or warranty liability.

NTIC uses third-party manufacturers to produce the majority of its products. In addition, NTIC relies upon certain contractors for logistical services. Although NTIC's arrangements with its contract manufacturers and contractors may contain provisions for warranty expense reimbursement, NTIC may remain responsible to its customers for warranty service in the event of product defects and could experience an unanticipated product defect or warranty liability. In addition, product defects could harm NTIC's reputation amongst its customers.

The commercial success of NTIC's Natur-Tec® resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio-based and biodegradable resins.

Although there is a developed market for petroleum-based plastics, the market for "bioplastics" which are plastics produced with bio-based resins, which are derived from renewable resources such as corn or cellulosic/plant material or blends thereof, or plastics that are engineered to be fully biodegradable or both, is still developing. The commercial success of NTIC's Natur-Tec® resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio-based and biodegradable resins. It is currently difficult to assess or predict with any assurance the potential size, timing, and viability of market opportunities for NTIC's Natur-Tec® resin compounds and finished products. The traditional plastics market sector is well-established with entrenched competitors with whom NTIC competes. Pricing for traditional plastics has been highly volatile in recent years, which drives, to some extent, the commercial and other support for bioplastics. While NTIC expects to be able to command a premium price for its Natur-Tec® resin compounds and finished products, a widening gap in the pricing for bioplastics versus petroleum-based plastics may reduce the size of the addressable market for NTIC's Natur-Tec® resin compounds and finished products. In addition, the growth of the market will create some pressure on price for applications today considered commodities, including in particular NTIC's current Natur-Tec® finished products.

NTIC relies on its joint ventures, distributors, manufacturer's sales representatives, and other agents to market and sell its products.

In addition to its direct sales force, NTIC relies on its joint ventures, distributors, manufacturer's sales representatives, and other agents to market and sell its products in the United States and internationally. NTIC's joint ventures, distributors, manufacturer's sales representatives, and other agents might terminate their relationship with NTIC or devote insufficient sales efforts to NTIC's products. NTIC does not control its joint ventures, distributors, manufacturer's sales representatives, and other agents, and they may not be successful in implementing NTIC's marketing plans. NTIC's failure to maintain its existing relationships with these entities, or its failure to recruit and retain additional skilled joint venture partners, distributors, manufacturer's sales representatives, and other agents, could have an adverse effect on NTIC's operations. It is anticipated that several of NTIC's joint venture partners will retire during the next several years, which will require a transition on the part of the joint venture as well as NTIC and could harm NTIC's relationship with the joint venture and NTIC's business.

NTIC may be subject to product liability claims or other claims arising out of the activities of its joint ventures, which could adversely affect NTIC and its business.

While NTIC is not aware of any specific potential risk beyond its initial investment in, and any undistributed earnings of, each of its joint ventures, there can be no assurance that NTIC will not be subject to lawsuits based on product liability claims or other claims arising out of the activities of its joint ventures. To mitigate the ramifications of such an occurrence, NTIC maintains liability insurance specifically applicable to its ownership positions in its joint venture arrangements in excess of any insurance the joint ventures may maintain. No assurance can be provided, however, that such insurance will be available or adequate in the event of a claim.

The sale of ZERUST® rust and corrosion inhibiting products into the oil and gas industry is risky in light of the hazards typically associated with such operations and the significant amount of potential liability involved, which could adversely affect NTIC's business if ZERUST® rust and corrosion inhibiting products are involved, even if the cause of such events was not related to NTIC's products.

Because NTIC sells its ZERUST® rust and corrosion inhibiting products into the oil and gas industry, NTIC is subject to some of the risks and hazards typically associated with such operations, including hazards such as fire, explosion, blowouts, cratering, unplanned gas releases, and spills, each of which could be claimed to be attributed to the failure of NTIC's products to perform as anticipated. If such events occur and NTIC's products are involved, NTIC's business and operating results may suffer, even if the cause of such events was not related to NTIC's products.

The sale of ZERUST® rust and corrosion inhibiting products into the oil and gas industry is somewhat seasonal and dependent upon oil prices.

In the past, NTIC has experienced some seasonality with respect to the sale of its ZERUST® rust and corrosion inhibiting products into the oil and gas industry, with sales during parts of the second and third fiscal quarters being adversely affected by winter in the United States. In addition, the sale of NTIC's ZERUST® rust and corrosion inhibiting products into the oil and gas industry, particularly in the United States, has been and may continue to be hampered by low global crude oil prices. Low global crude oil prices have recently been caused by oversupply, price wars between Saudi Arabia and Russia and the impact of the COVID-19 pandemic. NTIC believes low global crude oil prices constrain capital improvement budgets of its existing and prospective customers and may result in personnel turnover at its oil and gas customers or prospects.

The expansion of NTIC's corrosion prevention solutions into the oil and gas industry and the continued launch of NTIC's Natur-Tec® resin compounds and finished products may require additional capital in the future, which may not be available or may be available only on unfavorable terms. In addition, any equity financings may be dilutive to NTIC's stockholders.

The expansion of NTIC's corrosion prevention solutions into the oil and gas industry and the continued expansion of NTIC's Natur-Tec® resin compounds and finished products will continue to require resources during fiscal 2022 and beyond. To the extent that NTIC's existing capital, including amounts available under its revolving line of credit, is insufficient to meet these requirements, NTIC may raise additional capital through financings or additional borrowings. Any equity or debt financing, if available at all, may be on terms that are not favorable to NTIC, and any equity financings could result in dilution to NTIC's stockholders.

Risks Related to Governmental Regulation, Laws, and Compliance

NTIC's business, properties, and products are subject to governmental regulation and taxes, compliance with which may require NTIC to incur expenses or modify its products or operations, and which may expose NTIC to penalties for non-compliance. Governmental regulation also may adversely affect the demand for some of NTIC's products and its operating results.

NTIC's business, properties, and products are subject to a wide variety of international, federal, state, and local laws, rules, taxes, and regulations relating to the protection of the environment, natural resources, and worker health and safety and the use, management, storage, and disposal of hazardous substances, wastes, and other regulated materials. These laws, rules, and regulations may affect the way NTIC conducts its operations, and the failure to comply with these regulations could lead to fines and other penalties. These laws, rules, and regulations may be subject to change by the Biden administration, which has stalled construction of the Keystone XL Pipeline and may in the future take action to further restrict such activities. Further, because NTIC owns and operates real property, various environmental laws also may impose liability on NTIC for the costs of cleaning up and responding to hazardous substances that may have been released on NTIC's property, including releases unknown to NTIC. These environmental laws and regulations also could require NTIC to pay for environmental remediation and response costs at third-party locations where NTIC disposed of or recycled hazardous substances. NTIC's future costs of complying with the various environmental requirements, as they now exist or may be altered in the future, could adversely affect NTIC's financial condition and operating results. NTIC is also subject to other international, federal, and state laws, rules, and regulations, the future non-compliance with which may harm NTIC's business or may adversely affect the demand for some of its products. Changes in laws and regulations, including changes in accounting standards and taxation changes, including tax rate changes, new tax laws, and revised tax law interpretations, also may adversely affect NTIC's operating results.

Fluctuations in NTIC's effective tax rate could have a significant impact on NTIC's financial position, results of operations, or cash flows.

The mix of pre-tax income or loss among the tax jurisdictions in which NTIC operates, which have varying tax rates, could impact NTIC's effective tax rate. NTIC is subject to income taxes as well as non-income based taxes in both the United States and various foreign jurisdictions. Judgment is required in determining the worldwide provision for income taxes, other tax liabilities, interest, and penalties. Future events could change management's assessment. NTIC operates within multiple taxing jurisdictions and is subject to tax audits in these jurisdictions. These audits can involve complex issues, which may require an extended period of time to resolve. NTIC also has made assumptions about the realization of deferred tax assets. Changes in these assumptions or jurisdictional regulations could result in a valuation allowance for these assets. Final determination of tax audits or tax disputes may be different from what is currently reflected by NTIC's income tax provisions and accruals.

Certain of NTIC's operations are subject to regulation by the U.S. Food and Drug Administration.

The manufacture, sale, and use of NTIC's Natur-Tec® bio-plastic resin compounds are subject to regulation by the U.S. FDA. The FDA's regulations are concerned with substances used indirectly in food packaging materials, not with specific finished food packaging products. Thus, food and beverage containers are in compliance with FDA regulations if the components used in the food and beverage containers: (i) are approved by the FDA as indirect food additives for their intended uses and comply with the applicable FDA indirect food additive regulations; or (ii) are generally recognized as safe for their intended uses and are of suitable purity for those intended uses. NTIC believes that its Natur-Tec® resin compounds comply with all FDA requirements. However, failure to comply with FDA regulations could subject NTIC to administrative, civil, or criminal penalties.

NTIC's compliance with accounting principles generally accepted in the United States of America and any changes in such principles might adversely affect NTIC's operating results and financial condition. Any requirement to consolidate NTIC's joint ventures could adversely affect NTIC's operating results and financial condition.

If there were a change in accounting rules and NTIC were required to fully consolidate its joint ventures or if NTIC's joint ventures otherwise would be required to be consolidated with NTIC, NTIC and the individual joint venture would incur significant additional costs. In addition, other accounting pronouncements issued in the future could have a material cost associated with NTIC's implementation of such new accounting pronouncements.

Risks Related to NTIC's Intellectual Property

NTIC's reliance upon patents, trademark laws, trade secrets, and contractual provisions to protect its proprietary rights may not be sufficient to protect its intellectual property from others who may sell similar products.

NTIC holds patents relating to various aspects of its products and believes that proprietary technical know-how is critical to many of its products. Proprietary rights relating to NTIC's products are protected from unauthorized use by third parties only to the extent that they are covered by valid and enforceable patents or are maintained in confidence as trade secrets. NTIC cannot be certain that it will be issued any patents from any pending or future patent applications owned by or licensed to NTIC or that the claims allowed under any issued patents will be sufficiently broad to protect its technology. In the absence of patent protection, NTIC may be vulnerable to competitors who attempt to copy NTIC's products or gain access to its trade secrets and know-how. NTIC's competitors may initiate litigation to challenge the validity of NTIC's patents, or they may use their resources to design comparable products that do not infringe NTIC's patents. NTIC may incur substantial costs if its competitors initiate litigation to challenge the validity of its patents or if it initiates any proceedings to protect its proprietary rights, and if the outcome of any such litigation is unfavorable to NTIC, its business and operating results could be materially adversely affected.

In addition, NTIC relies substantially on trade secrets and proprietary know-how that it seeks to protect, in part, by confidentiality agreements with its employees and consultants. These agreements may be breached, and NTIC may not have adequate remedies for any such breach. Even if these confidentiality agreements are not breached, NTIC's trade secrets may otherwise become known or be independently developed by competitors.

Risks Related to NTIC's Common Stock

The trading volume of NTIC's common stock is typically very low, leaving NTIC's common stock open to risk of high volatility.

The number of shares of NTIC's common stock being traded daily is often very low, and on some trading days, there is no trading volume at all. During fiscal 2021, the daily trading volume ranged from 400 shares to 100,200 shares. Any NTIC stockholder wishing to sell his, her, or its stock may cause a significant fluctuation in the trading price of NTIC's common stock. In addition, low trading volume of a stock increases the possibility that, despite rules against such activity, the price of the stock may be manipulated by persons acting in their own self-interest. NTIC may not have adequate market makers and market making activity to prevent manipulation in its common stock.

The price and trading volume of NTIC's common stock has been, and may continue to be, volatile.

The market price and trading volume of NTIC's common stock price historically has fluctuated over a wide range. During fiscal 2021, the sale price of NTIC's common stock ranged from a low of $7.79 per share to a high of $21.50 per share, and the daily trading volume ranged from 400 shares to 100,200 shares. It is likely that the price and trading volume of NTIC's common stock will continue to fluctuate in the future. The securities of small capitalization companies, including NTIC, from time-to-time experience significant price and volume fluctuations, often unrelated to the operating performance of these companies. Securities class action litigation is sometimes brought against a company following periods of volatility in the market price of its securities or for other reasons. NTIC may become the target of similar litigation, especially if NTIC fails to meet its annual projected financial guidance or lowers its annual projected financial guidance. Securities litigation, whether with or without merit, could result in substantial costs and divert management's attention and resources, which could harm NTIC's business, operating results, and financial condition as well as the market price of its common stock.

A large percentage of NTIC's outstanding common stock is held by insiders, and, as a result, the trading market for NTIC's common stock is not as liquid as the stock of other public companies.

As of November 15, 2021, NTIC had 9,187,446 shares of common stock outstanding, 23.5% of which were beneficially owned by directors, executive officers, principal stockholders, and their respective affiliates. The stock of companies with a substantial amount of stock held by insiders is usually not as liquid as the stock of other public companies where insider ownership is not as concentrated. Thus, the trading market for shares of NTIC's common stock may not be as liquid as the stock of other public companies.

If securities or industry analysts do not publish research or reports about NTIC's business, or if they adversely change their recommendations regarding NTIC's common stock, the market price for NTIC's common stock and trading volume could decline.

The trading market for NTIC's common stock has been influenced by research or reports that industry or securities analysts publish about NTIC or its business. If one or more analysts who cover NTIC downgrade NTIC's common stock, the market price for NTIC's common stock would likely decline. If one or more cease coverage of NTIC or fail to regularly publish reports on NTIC, NTIC could lose visibility in the financial markets, which, in turn, could cause the market price or trading volume for NTIC's common stock to decline.

One of NTIC's principal stockholders beneficially owns a significant percentage of NTIC's outstanding common stock and is affiliated with NTIC's President and Chief Executive Officer and, thus, may be able to influence matters requiring stockholder approval, including the election of directors, and could discourage or otherwise impede a transaction in which a third-party wishes to purchase NTIC's outstanding shares at a premium.

As of November 15, 2021, Inter Alia Holding Company, or Inter Alia, beneficially owned approximately 13.1% of NTIC's outstanding common stock. Inter Alia is an entity partially owned by G. Patrick Lynch, NTIC's President and Chief Executive Officer and director, as well as two other members of the Lynch family. Mr. Lynch shares voting and dispositive power of shares of NTIC's common stock held by Inter Alia with the other owners. As a result of his share ownership through Inter Alia and his position as President and Chief Executive Officer and director of NTIC, Mr. Lynch may be able to influence the affairs and actions of NTIC, including matters requiring stockholder approval, such as the election of directors and approval of significant corporate transactions. The interests of Mr. Lynch and Inter Alia may differ from the interests of NTIC's other stockholders. This concentration of ownership may have the effect of delaying, preventing, or deterring a change in control of NTIC, could deprive NTIC's stockholders of an opportunity to receive a premium for their common stock as part of a sale or merger of NTIC, and may negatively affect the market price of NTIC's common stock. Transactions that could be affected by this concentration of ownership include proxy contests, tender offers, mergers, or other purchases of common stock that could give stockholders the opportunity to realize a premium over the then-prevailing market price for shares of NTIC's common stock.

General Risk Factors

Climate change, or legal, regulatory, or market measures to address climate change, may negatively affect our business and operations.

Climate change resulting from increased concentrations of carbon dioxide and other greenhouse gases in the atmosphere may have an adverse impact on global temperatures, weather patterns and the frequency and severity of extreme weather and natural disasters, such as hurricanes, tornadoes, earthquakes, wildfires or flooding. Climate change may also cause water shortages, changes in rainfall and storm patterns, changes in sea levels and other negative weather and climate patterns. Such weather conditions could pose physical risks to our facilities and disrupt operation of our supply chain and may impact operational costs.

The increasing global focus on climate change and the need for corporate change also may lead to new regional, federal, and/or global legal and regulatory requirements to reduce or mitigate the effects of greenhouse gases. Inconsistency of regulations in the countries in which we operate may affect the costs of compliance with such legal or regulatory requirements. Additionally, in the event that such regulation is enacted and is more aggressive than the sustainability measures that we are currently undertaking to monitor our emissions and improve our energy efficiently, we may be subject to curtailment or reduced access to resources or experience significant increases in our costs of operation and delivery. As a result, climate change could negatively affect our business and operations.

In addition, public company stockholders are increasingly sensitive to the climate change impacts and mitigation efforts of companies, are increasingly seeking enhanced disclosure on the risks, challenges, governance implications, and financial impacts of climate change faced by companies and are demanding that companies take a proactive approach to addressing perceived environmental risks, including risks associated with climate change, relating to their operations. Adverse publicity or climate-related litigation that impacts us could have a negative impact on our business.

Severe weather could have a material adverse effect on our business.

NTIC's business has been and could in the future be materially and adversely affected by severe weather. NTIC's customers, including in particular NTIC's oil and gas customers, may have operations located in parts of the southern United States or other places and may be adversely affected by hurricanes and tropical storms, resulting in reduced demand for NTIC's products and services or increased operating costs. Furthermore, NTIC's customers and raw material suppliers' operations have been and could in the future be adversely affected by such hurricanes and other extreme or seasonal weather conditions. During fiscal year 2021, extreme weather caused supply chain disruptions and caused delays in receiving base resins. Adverse weather can also directly impede NTIC's operations. Repercussions of severe weather conditions may include:

- curtailment of services or reduced demand for products;
- weather-related damage to facilities and equipment, resulting in suspension of operations;
- inability to deliver equipment, personnel and products to job sites in accordance with contract schedules or increased transportation or other operating costs; and
- loss of productivity.

These constraints could delay NTIC's operations and materially increase NTIC's operating and capital costs.

NTIC may grow its business through additional joint ventures, subsidiaries, alliances, and acquisitions, which could be risky and harm its business.

One of NTIC's growth strategies may be to expand its business by entering into additional joint ventures and alliances and acquiring businesses, technologies, and products that complement or augment NTIC's existing products. The benefits of a joint venture, alliance, or acquisition may take more time than expected to develop, and NTIC cannot guarantee that any future joint ventures, alliances, or acquisitions will in fact produce the intended benefits. In addition, joint ventures, alliances, and acquisitions involve a number of risks, including:

- diversion of management's attention;

- difficulties in assimilating the operations and products of a new joint venture or acquired business or in realizing projected efficiencies, cost savings, and revenue synergies;
- potential loss of key employees or customers of the new joint venture or acquired business or adverse effects on existing business relationships with suppliers and customers;
- adverse impact on overall profitability if the new joint venture or acquired business does not achieve the financial results projected in NTIC's valuation models;
- reallocation of amounts of capital from other operating initiatives and/or an increase in NTIC's leverage and debt service requirements to pay the joint venture capital contribution or the acquisition purchase price, which could in turn restrict NTIC's ability to access additional capital when needed or to pursue other important elements of NTIC's business strategy;
- inaccurate assessment of undisclosed, contingent, or other liabilities or problems and unanticipated costs associated with the new joint venture or acquisition; and
- incorrect estimates made in the accounting for acquisitions, occurrence of non-recurring charges, and write-off of significant amounts of goodwill that could adversely affect NTIC's operating results.

NTIC's ability to grow through joint ventures, alliances, and acquisitions will depend, in part, on the availability of suitable opportunities at an acceptable cost, NTIC's ability to compete effectively for these opportunities, and the availability of capital to complete such transactions.

NTIC relies on its management information systems for inventory management, distribution, and other functions. If these information systems fail to adequately perform these functions or if NTIC experiences an interruption in their operation, NTIC's business and operating results could be adversely affected.

The efficient operation of NTIC's business is dependent on its management information systems. NTIC relies on its management information systems to effectively manage accounting and financial functions; manage order entry, order fulfillment, and inventory replenishment processes; and to maintain its research and development data. The failure of management information systems to perform as anticipated could disrupt NTIC's business and product development and could result in decreased sales, causing NTIC's business and operating results to suffer. In addition, NTIC's management information systems are vulnerable to damage or interruption from natural or man-made disasters, including terrorist attacks, attacks by computer viruses or hackers, power loss to computer systems, Internet outages, and telecommunications or data network failure. Any such interruption could adversely affect NTIC's business and operating results.

NTIC's business could be negatively impacted by cyber security threats.

In the ordinary course of NTIC's business, NTIC uses its management information systems to store and access proprietary business information. NTIC faces various cyber security threats, including cyber security attacks to its information technology infrastructure and attempts by others to gain access to its proprietary or sensitive information. The procedures and controls NTIC uses to monitor these threats and mitigate its exposure may not be sufficient to prevent cyber security incidents. The result of these incidents could include disrupted operations, lost opportunities, misstated financial data, liability for stolen assets or information, increased costs arising from the implementation of additional security protective measures, litigation, and reputational damage. Any remedial costs or other liabilities related to cyber security incidents may not be fully insured or indemnified by other means.

NTIC's quarterly results are typically unpredictable and subject to variation.

NTIC's quarterly operating results vary from quarter to quarter for a variety of reasons. For example, NTIC's quarterly sales to joint ventures can be affected by individual orders to joint ventures. Because of the typical size of individual orders to joint ventures and the overall size of NTIC's net sales to joint ventures, the timing of one or more orders can materially affect NTIC's quarterly sales to joint ventures and the comparisons to prior year quarters. In addition, because of the typical size of individual orders and the overall size of NTIC's net sales derived from sales of Natur-Tec® products, the timing of one or more orders can materially affect NTIC's quarterly sales of Natur-Tec® products and the comparisons to prior year quarters. Furthermore, since ZERUST® products for the oil and gas industry typically carry higher margins than other traditional ZERUST® products, the amount of sales of ZERUST® products for the oil and gas industry typically affects NTIC's overall margins. Such variability in operating results makes the prediction of NTIC's net sales, earnings, and other operating results for each quarter difficult and increases the risk of unanticipated variations in quarterly operating results. NTIC's quarterly results have been and, in the future, may be below the expectations of public market analysts and investors.

NTIC's business is subject to a number of other miscellaneous risks that may adversely affect NTIC's operating results, financial condition, or business.

NTIC's business is subject to a number of other miscellaneous risks that may adversely affect NTIC's operating results, and financial condition, such as natural or man-made disasters, an unexpected business loss of supply due to a force majeure event or global pandemics that may result in shortages of raw materials, higher commodity costs, an increase in insurance premiums, and other adverse effects on NTIC's business; the continued threat of terrorist acts and war that may result in heightened security and higher costs for import and export shipments of components or finished goods; and the ability of NTIC's management to adapt to unplanned events.

Item 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

Item 2. PROPERTIES

NTIC's principal executive offices, production facilities, and domestic research and development operations are located at 4201 Woodland Road, Circle Pines, Minnesota 55014. NTIC owns this real estate and building. NTIC also owns real estate and a building in Beachwood, Ohio, which it uses for office, manufacturing, laboratory, and warehouse space.

Internationally, NTIC's subsidiaries in Brazil, India, Mexico, and China all lease office, warehouse, and laboratory space. In July 2021, NTIC China entered into a purchase agreement to acquire an approximately 21,000 square feet industrial building and the right to use certain real estate in the Qingpu District of Shanghai, China, which will be used as China's new corporate headquarters beginning in February 2022. In addition, as a result of the Hartia-NTI acquisition, NTIC also leases office, warehouse, and laboratory space in Chennai, India.

Additionally, NTIC has contract warehousing agreements in California and Indiana to hold and release stock products to customers. NTIC's management considers its current properties suitable and adequate for its current and foreseeable needs.

Item 3. LEGAL PROCEEDINGS

For information regarding NTIC's legal proceedings, see Note 15 to NTIC's consolidated financial statements.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

NTIC's common stock is listed for trading on the Nasdaq Global Market under the symbol "NTIC."

Dividends

On April 23, 2020, the Company announced the temporary suspension of its quarterly cash dividend pending clarity on the financial impact of COVID-19 on the Company. On January 15, 2021, the Company announced the reinstatement of its quarterly cash dividend. During fiscal 2021, NTIC's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of the Company's common stock as of the following record dates:

Declaration Date	Amount	Record Date	Payable Date
January 15, 2021	$0.065	February 3, 2021	February 17, 2021
April 23, 2021	$0.065	May 5, 2021	May 19, 2021
July 21, 2021	$0.065	August 4, 2021	August 18, 2021

On October 20, 2021, NTIC's Board of Directors declared a cash dividend of $0.07 per share of NTIC's common stock, payable on November 17, 2021 to stockholders of record on November 3, 2021. The declaration of future dividends is not guaranteed and will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions, and other factors, including without limitation the effect of COVID-19 on its business, operating results, and financial condition.

Number of Record Holders

As of August 31, 2021, there were 165 record holders of NTIC's common stock. This does not include shares held in "street name" or beneficially owned.

Recent Sales of Unregistered Equity Securities

NTIC did not sell any shares of its common stock or any other equity securities of NTIC that were not registered under the Securities Act of 1933, as amended, during the fourth quarter of fiscal 2021.

Issuer Purchases of Equity Securities

NTIC did not purchase any shares of its common stock or other equity securities of NTIC during the fourth quarter of fiscal 2020. As of August 31, 2021, up to $2,640,548 in shares of NTIC common stock remained available for repurchase under NTIC's stock repurchase program.

Item 6. [RESERVED]

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis provides material historical and prospective disclosures intended to enable investors and other users to assess NTIC's financial condition and results of operations. Statements that are not historical are forward-looking and involve risks and uncertainties discussed under the heading "*Part I. Item 1. Business—Forward-Looking Statements"* and under the heading *"Part I. Item 1A. Risk Factors*." The following discussion of the results of the operations and financial condition of NTIC should be read in conjunction with NTIC's consolidated financial statements and the related notes thereto included under "*Part II. Item 8. Financial Statements and Supplementary Data*."

This Management's Discussion and Analysis is organized in the following major sections:

- **Business Overview**. This section provides a brief overview description of NTIC's business, focusing in particular on developments during the most recent fiscal year.
- **NTIC's Subsidiaries and Joint Venture Network**. This section provides a brief overview of NTIC's subsidiaries and its joint venture network, the joint ventures which are considered individually significant to NTIC's consolidated assets and income, and how NTIC's joint ventures are accounted for by NTIC.
- **Impact of the COVID-19 Pandemic**. This section provides a brief summary of the impacts to date and potential future impacts of the COVID-19 pandemic.
- **Worldwide Supply Chain Disruptions**. This section provides a brief summary of the impacts to date and potential future impacts of worldwide supply chain disruptions.
- **Financial Overview**. This section provides a brief summary of NTIC's financial results and financial condition for fiscal 2021 compared to 2020.
- **Sales and Expense Components**. This section provides a brief description of the significant line items in NTIC's consolidated statements of operations.
- **Results of Operations**. This section provides an analysis of the significant line items in NTIC's consolidated statements of operations.
- **Liquidity and Capital Resources**. This section provides an analysis of NTIC's liquidity and cash flows and a discussion of NTIC's financial condition and financial commitments.
- **Inflation and Seasonality**. This section describes the effects of inflation and seasonality, if any, on NTIC's business and operating results.
- **Market Risk**. This section describes material market risks to which NTIC is subject.
- **Related Party Transactions**. This section describes any material related party transactions to which NTIC is a party.
- **Off-Balance Sheet Arrangements**. This section describes NTIC's material off-balance sheet arrangements.
- **Critical Accounting Policies and Estimates**. This section discusses NTIC's critical accounting policies and estimates, which require NTIC to exercise subjective or complex judgments in their application. NTIC's significant accounting policies, including its critical accounting estimates, are summarized in Note 1 to NTIC's consolidated financial statements.
- **Recent Accounting Pronouncements**. This section references Note 2 to NTIC's consolidated financial statements, which summarizes the effect of recently issued accounting pronouncements on NTIC's results of operations and financial condition.

Business Overview

NTIC develops and markets proprietary, environmentally beneficial products and services in over 65 countries either directly or via a network of subsidiaries, joint ventures, independent distributors, and agents. NTIC's primary business is corrosion prevention, marketed mainly under the ZERUST® brand. NTIC has been selling its proprietary ZERUST® products and services to the automotive, electronics, electrical, mechanical, military, and retail consumer markets for over 45 years and, in recent years, has targeted and expanded into the oil and gas industry. NTIC also markets and sells a portfolio of bio-based and certified compostable (fully biodegradable) polymer resin compounds and finished products under the Natur-Tec® brand. These products are intended to reduce NTIC's customers' carbon footprint and provide environmentally sound waste disposal options.

NTIC's ZERUST® rust and corrosion inhibiting products include plastic and paper packaging, liquids, coatings, rust removers, cleaners, and diffusers as well as engineered solutions designed specifically for the oil and gas industry. NTIC also offers worldwide, on-site, technical consulting for rust and corrosion prevention issues. NTIC's technical service consultants work directly with the end users of NTIC's ZERUST® rust and corrosion inhibiting products to analyze their specific needs and develop systems to meet their performance requirements. In North America, NTIC sells its ZERUST® corrosion prevention solutions through a network of independent distributors and agents supported by a direct sales force.

Internationally, NTIC sells its ZERUST® corrosion prevention solutions through its wholly-owned subsidiary in China, NTIC (Shanghai) Co., Ltd. (NTIC China), starting September 1, 2021 its wholly-owned subsidiary in India, Harita-NTI Ltd., its majority-owned joint venture holding company for NTIC's joint venture investments in the Association of Southeast Asian Nations (ASEAN) region, NTI Asean LLC (NTI Asean), certain majority-owned and wholly-owned subsidiaries, and joint venture arrangements in North America, Europe, and Asia. NTIC also sells products directly to its European joint venture partners through its wholly-owned subsidiary in Germany, NTIC Europe GmbH (NTI Europe).

One of NTIC's strategic initiatives is to expand into and penetrate other markets for its ZERUST® corrosion prevention technologies. Consequently, for the past several years, NTIC has focused significant sales and marketing efforts on the oil and gas industry, as the infrastructure that supports that industry is typically constructed using metals that are highly susceptible to corrosion. NTIC believes that its ZERUST® corrosion prevention solutions will minimize maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure, and reduce the risk of environmental pollution due to leaks caused by corrosion.

NTIC markets and sells its ZERUST® rust and corrosion prevention solutions to customers in the oil and gas industry in a continuously increasing number of countries either directly, through its subsidiaries, or through its joint venture partners and other strategic partners. The sale of ZERUST® corrosion prevention solutions to customers in the oil and gas industry typically involves long sales cycles, often including multi-year trial periods with each customer and a slow integration process thereafter.

Natur-Tec® bio-based and compostable plastics are manufactured using NTIC's patented and/or proprietary technologies and are intended to replace conventional petroleum-based plastics. The Natur-Tec® biopolymer resin compound portfolio includes formulations that have been optimized for a variety of applications, including blown-film extrusion, extrusion coating, injection molding, and engineered plastics. These resin compounds are certified to be fully biodegradable in a composting environment and are currently being used to produce finished products, including can liners, shopping and grocery bags, lawn and leaf bags, branded apparel packaging bags and accessories, and various foodservice items, such as disposable cutlery, drinking straws, food-handling gloves, and coated paper products. In North America, NTIC markets its Natur-Tec® resin compounds and finished products primarily through a network of regional and national distributors as well as independent agents. NTIC continues to see significant opportunities for finished bioplastic products and, therefore, continues to strengthen and expand its North American distribution network for finished Natur-Tec® bioplastic products.

Internationally, NTIC sells its Natur-Tec® resin compounds and finished products both directly and through its wholly-owned subsidiary in China and majority-owned subsidiaries in India and Sri Lanka, and through distributors and certain joint ventures.

NTIC's Subsidiaries and Joint Venture Network

NTIC has ownership interests in 10 operating subsidiaries in North America, South America, Europe, and Asia, which are listed in "*Part I. Item 1. Business*" of this annual report on Form 10-K. The results of these subsidiaries are fully consolidated in NTIC's consolidated financial statements, except for Harita-NTI Limited, which will be consolidated commencing September 1, 2021. On September 21, 2021, NTIC announced that it acquired the remaining 50% ownership interest in its Indian joint venture, Harita-NTI Limited, for $6.25 million in cash, effective as of September 1, 2021.

NTIC participates in 19 active joint venture arrangements in North America, Europe, and Asia. NTIC has historically funded its investments in joint ventures with cash generated from operations. NTIC's receives funds from its joint ventures as fees for services that NTIC provides to its joint ventures and as dividend distributions. The fees for services provided to joint ventures are determined based on either a flat fee or a percentage of sales depending on local laws and tax regulations. With respect to NTIC's joint venture in Germany (EXCOR), NTIC recognizes an agreed upon quarterly fee for services. NTIC recognizes equity income from each joint venture based on the overall profitability of the joint venture. Such profitability is subject to variability from quarter to quarter, which, in turn, subjects NTIC's earnings to variability from quarter to quarter. The profits of each joint venture are shared by the respective joint venture owners in accordance with their respective ownership percentages. NTIC typically directly or indirectly owns 50% or less of each of its joint venture entities and, thus, does not control the decisions of these entities regarding whether to pay dividends and, if paid, what amount is paid in a given year. The payment of a dividend by an entity is determined by a joint vote of the owners and is not at the sole discretion of NTIC.

NTIC accounts for the investments and financial results of its joint ventures in its financial statements utilizing the equity method of accounting. NTIC considers EXCOR to be individually significant to NTIC's consolidated assets and income as of August 31, 2021. NTIC considers EXCOR, ACOBAL SAS, ZERUST OY, ZERUST SPECIALTY TECH CO. LTD. and its former joint venture, Harita-NTI Limited, to be individually significant to NTIC's consolidated assets and income as of August 31, 2020. Therefore, NTIC provides certain additional information regarding these entities in the notes to NTIC's consolidated financial statements and in this section of this report. Additional information related to NTIC's joint ventures is available in "*Part I. Item 1. Business*" of this annual report on Form 10-K.

Impact of the COVID-19 Pandemic

In March 2020, the World Health Organization declared the novel coronavirus (COVID-19) outbreak a global pandemic. The COVID-19 pandemic has negatively impacted the global economy, disrupted global supply chains and shipping, created significant volatility and disruption in financial markets and has resulted in an economic recession. The outbreak and continuing rapid spread of COVID-19 has resulted in a substantial curtailment of business activities worldwide and is causing weakened economic conditions, both in the United States and abroad.

As part of efforts to contain the spread of COVID-19, federal, state, local and foreign governments imposed various restrictions on the conduct of business and travel, some of which remain in place in whole or in part and some of which have been or may be reinstated. Government restrictions, such as stay-at-home orders, quarantines and worker absenteeism as a result of COVID-19, led to a significant number of business closures and slowdowns. These business closures and slowdowns adversely impacted and may continue to adversely impact NTIC directly and caused some of NTIC's customers and suppliers to operate at a fraction of their capacities or wholly lock down, which disrupted and may continue to disrupt NTIC's sales and production.

As the events surrounding the COVID-19 pandemic unfolded, NTIC's primary focus was, and continues to be, the health, safety and wellbeing of its employees, customers and suppliers. In order to continue its operations, as permitted by respective state, local and foreign governments, NTIC has adopted numerous safety measures in accordance with U.S. Centers for Disease Control and Prevention, World Health Organization, and federal, state, local and foreign guidance in order to protect its employees, customers and suppliers. These safety measures include, but are not limited to, adhering to social distancing protocols, enabling the majority of its employees to work from home, suspending non-essential travel, disinfecting facilities and workspaces extensively and frequently, suspending all non-essential visitors and requiring employees who must be present at NTIC's facilities to wear face coverings. NTIC expects to continue such safety measures for the foreseeable future and may take further actions, or adapt these existing policies, as government authorities may require or recommend or as it may determine to be in the best interests of its employees, customers and suppliers.

NTIC has been balancing its safety-focused approach with the needs of its customers. Government mandated measures resulting in the substantial curtailment of business activities generally have excluded certain essential businesses and services, including certain manufacturing. With the exception of the temporary closures of NTIC's facilities in China and India during the COVID-19 pandemic in 2020 and again sporadically during 2021, NTIC's manufacturing activities are generally considered part of the "critical sector" with respect to state and local government orders. This has allowed NTIC to continue to receive orders and provide uninterrupted order fulfillment to its customers. However, its facilities have been operating at a reduced capacity in order to abide by local government requirements and recommendations, such as social distancing practices, and in response to reduced demand. During fiscal 2021, certain of NTIC's facilities were impacted by reduced levels of production, manufacturing inefficiencies due to the reconfiguration of certain of its manufacturing processes in order to implement social distancing protocols and reduced demand. NTIC has engaged and continues to engage in communications with its suppliers in an attempt to identify and mitigate supply chain risks and shipping delays and proactively manage inventory levels in order to align production with demand. While domestic and international governmental measures may be modified or extended, NTIC currently expects that its global facilities will remain operational, although operating at reduced production capacity at certain of its facilities. However, such expectation is dependent upon future governmental actions and demand for NTIC's products, the stability of its global supply chain and the ability of carriers to transport supplies to its facilities and products to its customers.

As a result of the global economic slowdown caused by the COVID-19 pandemic, NTIC experienced softened demand in various regions and markets during fiscal 2021, which had an adverse effect on NTIC's operating results and financial condition. In addition, NTIC has experienced supply shortages and price increase on raw materials which have adversely affected its margins. NTIC has also experienced increased shipping costs and shipping delays as a result of freight container shortages. These issues are expected to persist into fiscal 2022. Due to the international reach of COVID-19, NTIC's international joint ventures have also been adversely impacted. It is not possible to predict how long the pandemic will last or the time that it will take for economic activity to return to prior levels for all business units.

Any of these events could materially adversely affect NTIC's business, operating results and financial condition.

Worldwide Supply Chain Disruptions

Worldwide supply chain disruptions, which were initially brought about by the impact of the COVID-19 pandemic, have persisted despite the recovery in the global economy and financial markets, and these issues are expected to continue in fiscal 2022. In fiscal 2021, NTIC experienced longer lead times for raw materials, was forced to find new suppliers of certain raw materials, and experienced raw material cost increases compared to prior fiscal years. Additionally, NTIC experienced significantly longer shipping times and significant price increases per shipping container compared to prior fiscal years due to ocean freight capacity issues resulting from increased demand for shipping and reduced capacity and equipment. These and other issues resulting from worldwide supply chain disruptions are expected to continue in fiscal 2022 and could continue to have a material adverse effect on NTIC's business, operating results and financial condition. The precise financial impact and duration, however, cannot be reasonably estimated at this time.

Financial Overview

NTIC's management, including its chief executive officer, who is NTIC's chief operating decision maker, reports and manages NTIC's operations in two reportable business segments based on products sold, customer base, and distribution center: ZERUST® products and services and Natur-Tec® products.

NTIC's consolidated net sales increased 18.6% during fiscal 2021 compared to fiscal 2020. NTIC's consolidated net sales for fiscal 2021 were positively affected by increased demand globally as a result of the recovery from the COVID-19 pandemic. During fiscal 2021, 80.6% of NTIC's consolidated net sales were derived from sales of ZERUST® products and services, which increased 32.1% to $45,554,434 during fiscal 2021 compared to $34,474,535 during fiscal 2020. This increase was due to increased sales to new and existing customers in all countries in addition to the recovery from the COVID-19 pandemic. During fiscal 2021, 19.4% of NTIC's consolidated net sales were derived from sales of Natur-Tec® products compared to 27.6% during fiscal 2020. Net sales of Natur-Tec® products decreased 16.9% to $10,939,385 during fiscal 2021 compared to fiscal 2020 primarily due to a decrease in finished product sales in North America and at NTIC's majority-owned subsidiary in India, Natur-Tec India Private Limited (Natur-Tec India).

Cost of goods sold as a percentage of net sales decreased to 65.4% during fiscal 2021 compared to 66.4% during fiscal 2020 primarily as a result of a decreased percentage of product sales from Natur-Tec® products, which have lower gross margins than NTIC's traditional ZERUST® industrial products and services or its oil and gas products, partially offset by price increases on raw materials used in NTIC's products.

NTIC's equity in income from joint ventures increased 74.8% to $7,465,214 during fiscal 2021 compared to $4,270,327 during fiscal 2020. This increase was primarily due to a corresponding 39.0% increase in net sales at the joint ventures, which were $120,954,550 during fiscal 2021, compared to $87,030,062 during fiscal 2020. The majority of the increase in sales at the joint ventures is attributable to the increase in net sales at EXCOR, which were $46,522,688 during fiscal 2021, compared to $32,546,402 during fiscal 2020. The increase in the net sales of NTIC's joint ventures was due primarily to increased sales to existing customers as a result of increased demand for existing products.

NTIC's total operating expenses increased $1,355,173, or 5.8%, to $24,679,626 during fiscal 2021 compared to $23,324,453 during fiscal 2020. These increases were primarily due to increased expenses due to the resumption of travel and other activities as a result of the recovery associated with COVID-19 pandemic and increased research and development expenses. NTIC spent $4,400,479 in fiscal 2021 in connection with its research and development activities, compared to $3,979,455 in fiscal 2020.

NTIC had net income attributable to NTIC of $6,281,238, or $0.64 per diluted common share, for fiscal 2021, compared to net loss attributable to NTIC of $(1,337,709), or $(0.15) per diluted common share, for fiscal 2020. This increase was primarily a result of increased demand globally as a result of the recovery from the COVID-19 pandemic, although NTIC anticipates that its earnings may continue to be somewhat adversely affected by the COVID-19 pandemic during fiscal 2022. Additionally, NTIC anticipates that its quarterly net income or loss will continue to remain subject to significant volatility primarily due to the financial performance of its subsidiaries and joint ventures, sales of its ZERUST® products and services into the oil and gas industry, and sales of its Natur-Tec® bioplastics products, which fluctuate more on a quarterly basis than the traditional ZERUST® business.

NTIC's working capital, defined as current assets less current liabilities, was $25,230,893 at August 31, 2021, including $7,680,641 in cash and cash equivalents and $4,634 in available for sale securities, compared to $27,104,746 at August 31, 2020, including $6,403,032 in cash and cash equivalents and $5,544,722 in available for sale securities. NTIC expects its working capital to decrease at the end of first quarter of fiscal 2022 as compared to August 31, 2021 due to the $6.25 million payment by NTIC for the remaining 50% ownership interest in Harita-NTI in September 2021.

During fiscal 2020, NTIC's Board of Directors declared cash dividends of $0.065 per share during its first and second quarters. On April 23, 2020, NTIC announced the temporary suspension of its quarterly cash dividend pending clarity on the financial impact of COVID-19 on NTIC. On January 15, 2021, NTIC announced the reinstatement of its quarterly cash dividend. During fiscal 2021, NTIC's Board of Directors declared cash dividends of $0.065 per share during its second, third and fourth quarters. On October 20, 2021, NTIC's Board of Directors declared a cash dividend of $0.07 per share of NTIC's common stock, payable on November 17, 2021 to stockholders of record on November 3, 2021. The declaration of future dividends is not guaranteed and will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions, and other factors, including without limitation the effect of COVID-19 on its business, operating results, and financial condition.

Sales and Expense Components

The following is a description of the primary components of net sales and expenses:

Net Sales, Excluding Joint Ventures. NTIC derives net sales from the sale of its ZERUST® products and services and its Natur-Tec® products. NTIC sells its ZERUST® products and services and its Natur-Tec® products either directly, through its subsidiaries, or via a network of joint ventures, independent distributors, and agents. Net sales, excluding joint ventures represents net sales by NTIC either directly to end users or to distributors worldwide, but not sales to NTIC's joint ventures and not sales by NTIC's joint ventures. NTIC recognizes revenue from the sale of its products primarily upon shipment of the products.

Net Sales, To Joint Ventures. Net sales, to joint ventures represents net sales by NTIC to NTIC's joint ventures, but not sales by NTIC either directly to end users or to distributors or sales by NTIC's joint ventures. NTIC's revenue recognition policy for sales to its joint ventures is the same as NTIC's policy for sales to unaffiliated customers. NTIC recognizes revenue from the sale of its products to joint ventures primarily upon shipment of the products.

Cost of Goods Sold. Most of NTIC's products are manufactured by third parties, and its cost of goods sold for those products consists primarily of the price invoiced by its third-party vendors. For the portion of products that NTIC manufactures, NTIC's cost of goods sold for those products consists primarily of direct labor, allocated manufacturing overhead, raw materials, and components. NTIC's margins on its Natur-Tec® resin compounds and finished products are generally smaller than its margins on its ZERUST® products and services, and NTIC's margins on its ZERUST® products and services sold into the oil and gas industry are generally greater than its margins on its traditional ZERUST® products and services.

Equity in Income from Joint Ventures. NTIC's equity in income from joint ventures consists of NTIC's share of equity in income from each joint venture based on the overall profitability of the joint ventures. Such profitability is subject to variability from quarter to quarter, which, in turn, subjects NTIC's earnings to variability from quarter to quarter. Traditionally, a portion of the equity income recorded in a given fiscal year is paid to the owners of the joint venture entity during the following fiscal year through a dividend. The payment of a dividend by a joint venture entity is determined by a vote of the joint venture owners and is not at the sole discretion of NTIC. NTIC typically owns only 50% or less of its joint venture entities and, thus, does not control the decisions of these entities regarding whether to pay dividends and, if paid, how much they should be in a given year.

Fees for Services Provided to Joint Ventures. NTIC provides certain services to its joint ventures, including consulting, legal, travel, insurance, technical, and marketing services based on licensing or other agreements with its joint ventures. NTIC receives fees for these services it provides to its joint ventures based primarily on the net sales by NTIC's joint ventures, the latter of which are not included in NTIC's net sales reflected on NTIC's consolidated statements of operations. The fees for services received by NTIC from its joint ventures are generally determined based on either a flat fee or a percentage of net sales by NTIC's joint ventures depending on local laws and tax regulations. With respect to EXCOR, NTIC receives an agreed upon fixed quarterly fee for such services. Under NTIC's agreements with its joint ventures in which the fees for services is described, amounts are earned when product is shipped from joint venture facilities, at which point a sale is deemed to have occurred and results in obligation of the joint venture to pay the royalty and recognition of the fee by NTIC.

Selling Expenses. Selling expenses consist primarily of sales commissions and support costs for NTIC's direct sale and distribution system and marketing costs.

General and Administrative Expenses. General and administrative expenses consist primarily of salaries and benefits and other costs for NTIC's executives, accounting, stock-based compensation, finance, legal, information technology, and human resources functions.

Research and Development Expenses. Research and development expenses include costs associated with the design, development, market analysis, lab testing, and field trials and enhancements of NTIC's products and services. NTIC expenses all costs related to product research and development as incurred. Research and development expenses reflect the net amount after being reduced by reimbursements related to certain research and development contracts. With respect to such research and development contracts, NTIC accrues proceeds received under the contracts and offsets research and development expenses incurred in equal installments over the timelines associated with completion of the contracts' specific objectives and milestones.

Interest Income. Interest income consists of interest earned on investments, which typically consist of investment-grade, interest-bearing securities and money market accounts.

Interest Expense. Interest expense results primarily from interest associated with any borrowings under NTIC's line of credit with PNC Bank.

Income Tax Expense. Income tax expense includes federal income taxes, foreign withholding taxes, income tax of consolidated entities in foreign jurisdictions, state income tax, and changes to NTIC's deferred tax valuation allowance. NTIC utilizes the asset and liability method of accounting for income taxes, which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed annually for differences between the financial statement and tax basis of assets and liabilities that will result in taxable or deductible amounts in the future, based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. NTIC records a tax valuation allowance when it is more likely than not that some portion or all of its deferred tax assets will not be realized. NTIC makes this determination based on all available evidence, including historical data and projections of future results. Income tax expense is the tax payable or refundable for the period plus or minus the change during the period in deferred tax assets and liabilities.

Results of Operations

Fiscal Year 2021 Compared to Fiscal Year 2020

The following table sets forth NTIC's results of operations for fiscal 2021 and fiscal 2020.

	Fiscal 2021	% of Net Sales	Fiscal 2020	% of Net Sales	$ Change	% Change
Net sales, excluding joint ventures	$ 53,470,623	94.6%	$ 45,666,045	95.9%	$ 7,804,578	17.1%
Net sales, to joint ventures..............................	3,023,196	5.4%	1,972,646	4.1%	1,050,550	53.5%
Cost of goods sold	36,920,814	65.4%	31,609,274	66.4%	5,311,540	16.8%
Equity in income from joint ventures	7,465,214	13.2%	4,270,327	9.0%	3,194,887	74.8%
Fees for services provided to joint ventures........	5,964,260	10.6%	4,612,885	9.7%	1,351,375	29.3%
Selling expenses..	12,016,974	21.3%	10,656,689	22.4%	1,360,285	12.8%
General and administrative expenses	8,262,173	14.6%	8,688,309	18.2%	(426,136)	(4.9)%
Research and development expenses	4,400,479	7.8%	3,979,455	8.4%	421,024	10.6%

Net Sales. NTIC's consolidated net sales increased 18.6% to $56,493,819 during fiscal 2021 compared to $47,638,691 during fiscal 2020. NTIC's consolidated net sales to unaffiliated customers excluding NTIC's joint ventures increased 17.1% to $53,470,623 during fiscal 2021 compared to $45,666,045 during fiscal 2020. Net sales to joint ventures increased 53.3% to $3,023,196 during fiscal 2021 compared to $1,972,646 during fiscal 2020. These increases were primarily a result of increased demand globally as a result of the recovery from the COVID-19 pandemic.

The following table sets forth NTIC's net sales by product segment for fiscal 2021 and fiscal 2020:

	Fiscal 2021	Fiscal 2020	$ Change	% Change
Total ZERUST® sales.......................	$ 45,554,434	$ 34,474,535	$ 11,079,899	32.1%
Total Natur-Tec® sales	10,939,385	13,164,156	(2,224,771)	(16.9)%
Total net sales..................................	$ 56,493,819	$ 47,638,691	$ 8,855,128	18.6%

During fiscal 2021, 80.6% of NTIC's consolidated net sales were derived from sales of ZERUST® products and services, which increased 32.1% to $45,554,434 compared to $34,474,535 during fiscal 2020. NTIC has strategically focused its sales efforts for ZERUST® products and services on customers with sizeable corrosion problems in industry sectors that offer sizable growth opportunities, including the oil and gas sector. Overall, demand for ZERUST® products and services depends heavily on the overall health of the market segments to which NTIC sells its products, including the automotive, oil and gas, agriculture, and mining markets in particular. Beginning in fiscal 2021, the automotive industry experienced a microchip shortage that has decreased the production of vehicles. This decreased production has decreased demand for ZERUST® products and services within the automotive industry. The microchip shortage and the corresponding decrease in the production of vehicles is anticipated to continue into fiscal 2022. The increase in NTIC's consolidated net sales derived from sales of ZERUST® products and services was primarily a result of increased demand across all geographies, partially offset by decreased demand from the automotive industry.

The following table sets forth NTIC's net sales of ZERUST® products for fiscal 2021 and fiscal 2020:

	Fiscal 2021	Fiscal 2020	$ Change	% Change
ZERUST® industrial net sales	$ 38,737,771	$ 29,719,015	$ 9,018,756	30.3%
ZERUST® joint venture net sales	3,023,196	1,972,646	1,050,551	53.3%
ZERUST® oil & gas net sales....................	3,793,467	2,782,874	1,010,592	36.3%
Total ZERUST® net sales...................	$ 45,554,434	$ 34,474,535	$ 11,079,899	32.1%

NTIC's total ZERUST® net sales increased during fiscal 2021 compared to fiscal 2020 primarily due to overall increased demand for ZERUST® industrial products and services. Overall demand for ZERUST® products and services depends heavily on the overall health of the markets in which NTIC sells its products, including the automotive, oil and gas, agriculture, and mining markets in particular.

ZERUST® oil and gas net sales increased 36.3% during fiscal 2021 compared to fiscal 2020 primarily as a result of new opportunities with new customers, partially offset by reduced demand as a result of the COVID-19 pandemic. NTIC anticipates that its sales of ZERUST® products and services into the oil and gas industry will continue to remain subject to significant volatility from quarter to quarter as sales are recognized, specifically due to the volatility of oil prices. Demand for oil and gas products around the world depends primarily on market acceptance and the reach of NTIC's distribution network. Because of the typical size of individual orders and overall size of NTIC's net sales derived from sales of oil and gas products, the timing of one or more orders can materially affect NTIC's quarterly sales compared to prior fiscal year quarters.

During fiscal 2021, 19.4% of NTIC's consolidated net sales were derived from sales of Natur-Tec® products, compared to 27.6% during fiscal 2020. Sales of Natur-Tec® products decreased 16.9% to $10,939,385 during fiscal 2021 compared to $13,164,156 during fiscal 2020. The COVID pandemic has adversely impacted demand for Natur-Tec® products from across the apparel industry, as well as many large users of bioplastics, including college campuses, stadiums, arenas, restaurants, and corporate office complexes. NTIC currently expects these customers will be some of the last businesses to fully re-open, and accordingly, anticipates that the COVID-19 pandemic will continue to significantly adversely affect sales of Natur-Tec® products during fiscal 2022.

Cost of Goods Sold. Cost of goods sold increased 16.8% in fiscal 2021 compared to fiscal 2020 primarily as a result of the increase in net sales, as described above. Cost of goods sold as a percentage of net sales decreased to 65.4% during fiscal 2020 compared to 66.4% during fiscal 2020 primarily due to changes in product mix. Sales from Natur-Tec® products have lower gross margins than NTIC's traditional ZERUST® oil and gas products. This decrease was partially offset by price increases on raw materials used in NTIC's products.

Equity in Income from Joint Ventures. NTIC's equity in income from joint ventures increased 74.8% to $7,465,214 during fiscal 2021 compared to $4,270,327 during fiscal 2020. This increase was primarily a result of increased profitability of the joint ventures, which fluctuates based on net sales, during the fiscal 2021. Of the total equity in income from joint ventures, NTIC had equity in income from joint ventures of $4,400,403 attributable to EXCOR during fiscal 2021 compared to $2,622,423 attributable to EXCOR during fiscal 2020. NTIC had equity in income of all other joint ventures of $3,064,811 during fiscal 2021 compared to $1,647,904 during fiscal 2020.

Fees for Services Provided to Joint Ventures. NTIC recognized fee income for services provided to joint ventures of $5,964,260 during fiscal 2021 compared to $4,612,885 during fiscal 2020, representing an increase of 29.3%, or $1,351,375. Fee income for services provided to joint ventures is traditionally a function of the sales made by NTIC's joint ventures; however, at various joint ventures, the fee income for services is a fixed amount that does not fluctuate with the increases in sales which was experienced by certain joint ventures during fiscal 2021. Total net sales of NTIC's joint ventures increased $33,924,488 to $120,954,550 during fiscal 2021 compared to $87,030,062 during fiscal 2020, representing an increase of 39.0%. Net sales of NTIC's joint ventures are not included in NTIC's product sales and are not included in NTIC's consolidated financial statements. Of the total fee income for services provided to joint ventures, fees of $920,902 were attributable to EXCOR during fiscal 2021 compared to $843,752 attributable to EXCOR during fiscal 2020.

Selling Expenses. NTIC's selling expenses increased 12.8% in fiscal 2021 compared to fiscal 2020 due primarily to increased travel expenses and personnel expense compared to the expenses incurred during fiscal 2020. Selling expenses as a percentage of net sales decreased to 21.3% for fiscal 2021 compared to 22.4% in fiscal 2020 primarily due to the fluctuations in net sales and selling expenses, as previously described.

General and Administrative Expenses. NTIC's general and administrative expenses decreased 4.9% in fiscal 2021 compared to fiscal 2020 primarily due to decreased travel expenses and other expenses due to work from home arrangements necessitated by the COVID-19 pandemic. As a percentage of net sales, general and administrative expenses decreased to 14.6% for fiscal 2021 from 18.2% for fiscal 2020 primarily due to the decrease in general and administrative expenses, as well as the increase in net sales, as previously described.

Research and Development Expenses. NTIC's research and development expenses increased 10.6% in fiscal 2021 compared to fiscal 2020 primarily due to increased personnel and development efforts, partially offset by decreased travel expenses and other expenses due to work from home arrangements necessitated by the COVID-19 pandemic.

Interest Income. NTIC earned net interest income of $151,875 in fiscal 2021 compared to $167,733 in fiscal 2020 due primarily to volatile changes to the invested cash in a conservative bond fund.

Income Before Income Tax Expense. NTIC had income before income tax expense of $8,458,642 for fiscal 2021 compared to income before income tax expense of $1,739,875 for fiscal 2020.

Income Tax Expense. Income tax expense was $1,461,905 during fiscal 2021 compared to $2,674,635 during fiscal 2020 for an effective tax rate of 17.3% and 153.7%, respectively. Income tax expense during fiscal 2020 includes $1,626,251 related to the impact of a tax valuation allowance recorded with respect to NTIC's domestic deferred tax assets during fiscal 2020.

Net Income (Loss) Attributable to NTIC. Net income attributable to NTIC was $6,281,238, or $0.64 per diluted common share, for fiscal 2021 compared to a net loss attributable to NTIC of $(1,337,709), or $(0.15) per diluted common share, for fiscal 2020, an increase of $7,618,947 or $0.79 per diluted share. This increase was primarily the result of increased income from joint venture operations and increased gross profit during fiscal 2021.

NTIC anticipates that its earnings will be adversely affected by the COVID-19 pandemic throughout fiscal 2022 and that its quarterly net income or loss will continue to remain subject to significant volatility primarily due to the financial performance of its subsidiaries and joint ventures, sales of its ZERUST® products and services into the oil and gas industry, and sales of its Natur-Tec® bioplastics products, which fluctuate more on a quarterly basis than the traditional ZERUST® business.

Other Comprehensive Income – Foreign Currency Translations Adjustment. The changes in the foreign currency translations adjustment were due to the fluctuation of the U.S. dollar compared to the Euro and other foreign currencies during fiscal 2021 compared to fiscal 2020.

Liquidity and Capital Resources

Sources of Cash and Working Capital. As of August 31, 2021, NTIC's working capital, defined as current assets less current liabilities, was $25,230,893, including $7,680,641 in cash and cash equivalents and $4,634 in available for sale securities, compared to working capital of $27,104,746, including $6,403,032 in cash and cash equivalents and $5,544,722 in available for sale securities, as of August 31, 2020. The decrease in NTIC's working capital is primarily the result of the purchase of property and equipment partially offset by an increase of dividends received from joint ventures and the collection of outstanding receivables.

As of August 31, 2021, NTIC has a revolving line of credit with PNC Bank of $5.0 million, which was increased from $3.0 million effective as of August 31, 2021. No amounts were outstanding under the line of credit as of August 31, 2021. Outstanding advances under the line of credit bear interest at the daily London Interbank Offered Rate (LIBOR) plus 250 basis points (2.50%). The revolving line of credit matures on February 22, 2022. The line of credit is governed under an amended and restated loan agreement. The loan agreement contains standard covenants, including affirmative financial covenants, such as the maintenance of a minimum fixed charge coverage ratio, and negative covenants, which, among other things, limit the incurrence of additional indebtedness, loans and equity investments, disposition of assets, mergers and consolidations and other matters customarily restricted in such agreements. Under the loan agreement, NTIC is subject to a minimum fixed charge coverage ratio of 1.10:1.00. As of August 31, 2021, NTIC was in compliance with all debt covenants. As of August 31, 2021, NTIC did not have any letters of credit outstanding with respect to the letter of credit sub-facility available under the revolving line of credit with PNC Bank.

NTIC believes that a combination of its existing cash and cash equivalents, available for sale securities, forecasted cash flows from future operations, anticipated distributions of earnings, anticipated fees to NTIC for services provided to its joint ventures, and funds available through existing or anticipated financing arrangements will be adequate to fund its existing operations, investments in new or existing joint ventures or subsidiaries, capital expenditures, debt repayments, cash dividends, and any stock repurchases for at least the next 12 months. During fiscal 2022, NTIC expects to continue to invest directly and through its use of working capital in Harita NTI Limited, NTIC China, Zerust Mexico, NTI Europe, its joint ventures, research and development, marketing efforts, resources for the application of its corrosion prevention technology in the oil and gas industry, and its Natur-Tec® bio-plastics business, although the amounts of these various investments are not known at this time. In order to take advantage of such new product and market opportunities to expand its business and increase its revenues, NTIC may decide to finance such opportunities by borrowing under its revolving line of credit or raising additional financing through the issuance of debt or equity securities. There is no assurance that any financing transaction will be available on terms acceptable to NTIC or at all or that any financing transaction will not be dilutive to NTIC's current stockholders.

NTIC traditionally has used the cash generated from its operations, distributions of earnings from joint ventures, and fees for services provided to its joint ventures to fund NTIC's new technology investments and capital contributions to new and existing subsidiaries and joint ventures. NTIC's joint ventures traditionally have operated with little or no debt and have been self-financed with minimal initial capital investment and minimal additional capital investment from their respective owners. Therefore, NTIC believes there is limited exposure by NTIC's joint ventures that could materially impact their respective operations and/or liquidity.

Uses of Cash and Cash Flow. Net cash provided by operating activities during fiscal 2021 was $2,892,940, which resulted principally from NTIC's net income, dividends received from joint ventures, stock-based compensation, depreciation, amortization and increases in accounts payable and accrued liabilities, partially offset by NTIC's equity in income from joint ventures and an increase in accounts receivable and prepaid expenses and other. Net cash provided by operating activities during fiscal 2020 was $4,912,070, which resulted principally from dividends received from joint ventures, stock-based compensation, depreciation, amortization and deferred income taxes, partially offset by NTIC's net loss, equity in income from joint ventures, and decreases in accrued liabilities and accounts payable.

NTIC's cash flows from operations are impacted by significant changes in certain components of NTIC's working capital, including inventory turnover and changes in receivables and payables. NTIC considers internal and external factors when assessing the use of its available working capital, specifically when determining inventory levels and credit terms of customers. Key internal factors include existing inventory levels, stock reorder points, customer forecasts, and customer requested payment terms. Key external factors include the availability of primary raw materials and sub-contractor production lead times. NTIC's typical contractual terms for trade receivables, excluding joint ventures, are traditionally 30 days and 90 days for trade receivables from its joint ventures. Before extending unsecured credit to customers, excluding NTIC's joint ventures, NTIC reviews customers' credit histories and will establish an allowance for uncollectible accounts based upon factors surrounding the credit risk of specific customers and other information. Accounts receivable over 30 days are considered past due for most customers. NTIC does not accrue interest on past due accounts receivable. If accounts receivables in excess of the provided allowance are determined uncollectible, they are charged to selling expense in the period that the determination is made. Accounts receivable are deemed uncollectible based on NTIC exhausting reasonable efforts to collect. NTIC's typical contractual terms for receivables for services provided to its joint ventures are 90 days. NTIC records receivables for services provided to its joint ventures on an accrual basis, unless circumstances exist that make the collection of the balance uncertain, in which case the fee income will be recorded on a cash basis until there is consistency in payments. This determination is handled on a case-by-case basis.

NTIC experienced an increase in trade receivables and an increase in inventory as of August 31, 2021 compared to August 31, 2020. Trade receivables, excluding joint ventures, as of August 31, 2021 increased $3,056,593 compared to August 31, 2020, primarily related to an increase in sales.

Outstanding trade receivables, excluding joint ventures balances, as of August 31, 2021 increased by an average of 11 days to an average of 76 days from balances outstanding from these customers as of August 31, 2020.

Outstanding trade receivables from joint ventures as of August 31, 2021 increased $148,908 compared to August 31, 2020 primarily due to the timing of payments. Outstanding balances from trade receivables from joint ventures decreased by an average of 13 days as of August 31, 2021 to an average of 75 days from an average of 88 days from balances outstanding from these customers compared to August 31, 2020. The average days outstanding of trade receivables from joint ventures as of August 31, 2021 were primarily due to the receivable balances at NTIC's joint ventures in Indonesia, Thailand and India.

Outstanding receivables for services provided to joint ventures as of August 31, 2021 increased $577,841 compared to August 31, 2020, and the average days to pay increased from an average of 73 days to an average of 92 days, compared to August 31, 2020.

Net cash used in investing activities during fiscal 2021 was $103,316, which was primarily the result of the purchase of available for sale securities, purchases of property and equipment and investments in patents, partially offset by proceeds from the sale of available for sale securities. Net cash used in investing activities during fiscal 2020 was $2,784,682, which was primarily the result of the purchase of available for sale securities, purchases of property and equipment and investments in patents, partially offset by proceeds from the sale of available for sale securities.

Net cash used in financing activities for fiscal 2021 was $1,522,209, which resulted from dividends paid on NTIC common stock and dividends paid to a non-controlling interest, partially offset by proceeds from NTIC's employee stock purchase plan and proceeds from stock option exercises. Net cash used in financing activities for fiscal 2020 was $1,518,005, which resulted from dividends paid on NTIC common stock and a dividend paid to a non-controlling interest, partially offset by proceeds from NTIC's employee stock purchase plan.

Share Repurchase Plan. On January 15, 2015, NTIC's Board of Directors authorized the repurchase of up to $3,000,000 in shares of NTIC common stock through open market purchases or unsolicited or solicited privately negotiated transactions. This program has no expiration date but may be terminated by NTIC's Board of Directors at any time. As of August 31, 2021, up to $2,640,548 in shares of NTIC common stock remained available for repurchase under NTIC's stock repurchase program. No shares of NTIC common stock were repurchased during fiscal 2021 or fiscal 2020.

Cash Dividends. During fiscal 2021, NTIC's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of NTIC's common stock as of the following record dates:

Declaration Date	**Amount**	**Record Date**	**Payable Date**
January 15, 2021	$0.065	February 3, 2021	February 17, 2021
April 23, 2021	$0.065	May 5, 2021	May 19, 2021
July 21, 2021	$0.065	August 4, 2021	August 18, 2021

On October 20, 2021, NTIC's Board of Directors declared a cash dividend of $0.07 per share of NTIC's common stock, payable on November 17, 2021 to stockholders of record on November 3, 2021.

During fiscal 2020, NTIC's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of NTIC's common stock as of the following record dates:

Declaration Date	**Amount**	**Record Date**	**Payable Date**
October 22, 2019	$0.065	November 6, 2019	November 20, 2019
January 22, 2020	$0.065	February 5, 2020	February 19, 2020

On April 23, 2020, NTIC announced the temporary suspension of its quarterly cash dividend pending clarity on the financial impact of COVID-19 on NTIC. Therefore, NTIC's Board of Directors did not declare a cash dividend during the quarter ended May 31, 2020, the quarter ended August 31, 2020, or the quarter ended November 30, 2020. On January 15, 2021, NTIC announced the reinstatement of its quarterly cash dividend.

The declaration of future dividends is not guaranteed and will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions, and other factors, including without limitation the effect of COVID-19 on its business, operating results, and financial condition.

Capital Expenditures and Commitments. NTIC spent $5,532,750 on capital expenditures during fiscal 2021, which related primarily to the purchase of real estate, a building and equipment in China. On July 7, 2021, NTIC (Shanghai) Co., Ltd., a wholly-owned subsidiary of NTIC, entered into a Real Estate Purchase and Sales Contract with Shanghai FASTO Investment Group Limited Company, pursuant to which NTIC (Shanghai) Co., Ltd. agreed to acquire an approximately 1,950 square meter industrial building and the right to use certain real estate in the Qingpu District of Shanghai, China for a purchase price of approximately RMB 32.6 million yuan (approximately USD $5.1 million), not including approximately RMB 10 million yuan (approximately USD $1.6 million) in anticipated renovation, equipment, transaction and other costs and expenses. The property will be used as the new corporate headquarters of NTIC (Shanghai) Co., Ltd.

NTIC expects to spend an aggregate of approximately $2,200,000 to $2,500,000 on capital expenditures during fiscal 2022, which it expects will relate primarily to anticipated renovation and equipment costs, as described above.

Contractual Obligations. Set forth below is information concerning NTIC's known contractual obligations as of August 31, 2021 that are fixed and determinable by year starting with the twelve months ending August 31, 2022.

	Payments Due by Period				
Contractual Obligations	**Total**	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**More than 5 Years**
Rent obligations...	$ 399,334	$ 282,966	$ 116,368	$ ---	$ ---
Total	$ 399,334	$ 282,966	$ 116,368	$ ---	$ ---

Inflation and Seasonality

Inflation in the United States and abroad historically has had little effect on NTIC. Although NTIC's business historically has not been seasonal, NTIC believes there is now some seasonality in its business. NTIC believes its net sales in the second fiscal quarter were adversely affected by the long Chinese New Year, the North American holiday season, and overall less corrosion taking place at lower winter temperatures worldwide.

Market Risk

NTIC is exposed to some market risk stemming from changes in foreign currency exchange rates, commodity prices, and interest rates.

Because the functional currency of NTIC's foreign operations and investments in its foreign joint ventures is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese Yen, the Indian Rupee, the Chinese Renminbi, the South Korean Won, and the English Pound against the U.S. Dollar. NTIC's fees for services provided to joint ventures and dividend distributions from these foreign entities are paid in foreign currencies and, thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's reported net income. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

Some raw materials used in NTIC's products are exposed to commodity price changes. The primary commodity price exposures are with a variety of plastic resins.

Any outstanding advances under NTIC's $5,000,000 amended and restated revolving line of credit with PNC Bank bear interest at an annual rate based on daily LIBOR plus 2.50%. As of August 31, 2021, NTIC had no borrowings under the line of credit. This line of credit was increased from $3,000,000 to $5,000,000 effective as of August 31, 2021.

Related Party Transactions

Since NTIC's joint ventures are considered related parties, NTIC recorded sales to its joint ventures as a separate line item on the face of NTIC's consolidated statements of operations and recorded fees for services provided to its joint ventures as separate line items on the face of NTIC's consolidated statements of operations. NTIC also records trade receivables from joint ventures, receivables for fees for services provided to joint ventures, and NTIC's investments in joint ventures as separate line items on its consolidated balance sheets.

NTIC established its joint venture network approximately 30 years ago as a method to increase its worldwide distribution network for ZERUST® rust and corrosion inhibiting products and services. NTIC participates, either directly or indirectly, in 18 active joint venture arrangements in North America, Europe, and Asia. Each of these joint ventures generally manufactures and markets finished products in the geographic territory to which it is assigned. NTIC's joint venture partners are knowledgeable in the applicable environmental, labor, tax, and other requisite regulations and laws of the respective foreign countries in which they operate, as well as the local customs and business practices. NTIC's revenue recognition policy for sales to its joint ventures is the same as its policy for sales to unaffiliated customers.

The fees for services provided to joint ventures are determined based on either a flat fee or a percentage of sales depending on local laws and tax regulations. With respect to NTIC's joint venture in Germany, EXCOR, NTIC recognizes an agreed upon quarterly fee for such services. NTIC records revenue related to fees for services provided to joint ventures when earned, amounts are determinable, and collectability is reasonably assured. Under NTIC's agreements with its joint ventures, fee amounts are earned when product is shipped from joint venture facilities. NTIC reviews the financial situation of each joint venture to assist in the likelihood of collections on amounts earned. From time to time, NTIC elects to account for such fees on a cash basis for certain joint ventures when uncertainty exists surrounding the collections of such fees. There are no fees being accounted for in this manner at present. The expenses incurred in support of its joint ventures are direct expenses that NTIC incurs related to its joint ventures and include such items as employee compensation and benefit expenses, travel expense, insurance, consulting expense, legal expense, and lab supplies and testing expense.

See Note 13 to NTIC's consolidated financial statements for other related party transaction disclosures.

Off-Balance Sheet Arrangements

NTIC does not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which are established for the purpose of facilitating off-balance sheet financial arrangements. As such, NTIC is not materially exposed to any financing, liquidity, market, or credit risk that could arise if NTIC had engaged in such arrangements.

Critical Accounting Policies and Estimates

The preparation of NTIC's consolidated financial statements requires management to make estimates and judgments that affect the reported amount of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. The Securities and Exchange Commission has defined a company's most critical accounting policies as those that are most important to the portrayal of its financial condition and results of operations and those which require the company to make its most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, NTIC has identified the following critical accounting policies. Although NTIC believes that its estimates and assumptions are reasonable, they are based upon information available when they are made. Actual results may differ significantly from these estimates under different assumptions or conditions.

Principles of Consolidation

NTIC evaluates its voting and variable interests in entities on a qualitative and quantitative basis. NTIC consolidates entities in which it concludes it has the power to direct the activities that most significantly impact an entity's economic success and has the obligation to absorb losses or the right to receive benefits that could be significant to the entity. All such relationships are evaluated on an ongoing basis. The consolidated financial statements included in this report include the accounts of Northern Technologies International Corporation, its wholly-owned subsidiaries, Northern Technologies Holding Company, LLC, NTIC (Shanghai) Co., Ltd., NTIC Europe GmbH and ZERUST-EXCOR MEXICO, S. de R.L. de C.V., NTIC's majority-owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A., NTIC's majority-owned holding company, NTI Asean LLC, and NTIC's majority-owned subsidiary in India, Natur-Tec India Private Limited, Natur-Tec Lanka, Zerust Singapore Pte Ltd (Zerust Singapore) and Zerust Vietnam Co. Ltd (Zerust Vietnam). NTIC's consolidated financial statements do not include the accounts of any of its joint ventures. Effective as of September 1, 2021, Harita-NTI Limited will be consolidated in NTIC's consolidated financial statements.

Investments in Joint Ventures and Recoverability of Investments in Joint Ventures

NTIC's investments in its joint ventures are accounted for using the equity method. NTIC assesses its joint ventures for impairment on an annual basis as of August 31 of each year as part of its fiscal year end analysis. In addition to the annual review for impairment, NTIC reviews the operating results of each joint venture on a quarterly basis in comparison to its historical operating results and its accrual for fees for services provided to joint ventures. If the operating results of a joint venture do not meet NTIC's financial performance expectations, an additional evaluation is performed on the joint venture. In addition to the annual assessments for impairment, non-periodic assessments for impairment may occur if cash remittances are less than accrued balances, a joint venture's management requests capital, or other events occur suggesting anything other than temporary decline in value. If an investment were determined to be impaired, then a reserve would be created to reflect the impairment on the financial results of NTIC. NTIC's evaluation of its investments in joint ventures requires NTIC to make assumptions about future cash flows of its joint ventures. These assumptions require significant judgment, and actual results may differ from assumed or estimated amounts.

Investment at Carrying Value

If NTIC is no longer able to exercise significant influence over operating and financial policy of a joint venture previously accounted for under the equity method, it maintains the investment at the carrying value as of the date that significant influence no longer exists and discontinues accruing the proportionate earnings or losses of the investment.

Investments are considered to be impaired when a decline in fair value is judged to be other-than-temporary. Fair value is calculated based on publicly available market information or other estimates determined by management. NTIC employs a systematic methodology on a quarterly basis that considers available quantitative and qualitative evidence in evaluating potential impairment of its investments. If the cost of an investment exceeds its fair value, NTIC evaluates, among other factors, general market conditions, credit quality of debt instrument issuers, the duration and extent to which the fair value is less than cost, and for equity securities, its intent and ability to hold, or plans to sell, the investment. NTIC also considers specific adverse conditions related to the financial health of and business outlook for the investee, including industry and sector performance, changes in technology, and operational and financing cash flow factors. Once a decline in fair value is determined to be other-than-temporary, an impairment charge is recorded to other income (expense), and a new cost basis in the investment is established.

Revenue Recognition

Revenue is measured based on consideration specified in the contract with a customer, adjusted for any applicable estimates of variable consideration and other factors affecting the transaction price, including noncash consideration, consideration paid or payable to customers, and significant financing components. While most of NTIC's revenue is contracted with customers through one-time purchase orders and short-term contracts, NTIC does have long-term arrangements with certain customers. Revenue from all customers is recognized when a performance obligation is satisfied by transferring control of a distinct good or service to a customer. The transaction price for NTIC's products is the invoiced amount. Revenue is recognized when transfer of control occurs as defined by the terms in the customer agreement, generally upon shipment of product.

With respect to recording revenue related to fees earned for services provided to NTIC's joint ventures, amounts are earned when product is shipped from joint venture facilities, at which point a sale is deemed to have occurred and results in obligation for the joint venture to pay the royalty and recognition of the fee by NTIC. The support and services NTIC provides its joint ventures include consulting, travel, insurance, technical and marketing services to existing joint ventures, legal fees incurred in the establishment of new joint ventures, registration and promotion and legal defense of worldwide trademarks, and legal fees incurred in connection with the filing of patent applications based on licensing or other agreements with its joint ventures. NTIC receives fees for the services it provides to its joint ventures based primarily on the net sales by NTIC's joint ventures. The fees for support services received by NTIC from its joint ventures are generally determined based on either a flat fee or a percentage of net sales by NTIC's joint ventures depending on local laws and tax regulations. Under NTIC's agreements with its joint ventures, amounts are earned when product is shipped from joint venture facilities. NTIC reviews the financial situation of each of its joint ventures to assist in the likelihood of collections on amounts earned. NTIC elects to account for these fees on a cash basis for certain joint ventures when uncertainty exists surrounding the collections of such fees.

Accounts Receivable

Trade receivables arise from sales of NTIC's products and services to NTIC's joint ventures and to unaffiliated customers. Trade receivables from joint ventures arise from sales NTIC makes to its joint ventures of products and the essential additives required to make ZERUST® industrial corrosion inhibiting products functional. Receivables for services to NTIC's joint ventures are contractually based primarily on a percentage of the sales of the joint ventures and are intended to compensate NTIC for services NTIC provides to its joint ventures, including consulting, legal, travel, insurance, technical, and marketing services.

Payment terms for NTIC's unaffiliated customers are determined based on credit risk and vary by customer. NTIC typically offers standard payment terms of net 30 days to unaffiliated customers. Payment terms for NTIC's joint ventures also are determined based on credit risk; however, additional consideration is given to the individual joint venture due to the transportation time associated with ocean delivery of most products and certain other factors. NTIC typically offers payment terms to joint ventures of net 90 days. NTIC does not accrue interest on past due accounts receivable. NTIC reviews the credit histories of its customers, including its joint ventures, before extending unsecured credit. NTIC values accounts and notes receivable net of an allowance for doubtful accounts. Each quarter, NTIC prepares an analysis of its ability to collect outstanding receivables that provides a basis for an allowance estimate for doubtful accounts. In doing so, NTIC evaluates the age of its receivables, past collection history, current financial conditions of key customers and its joint ventures, and economic conditions. Based on this evaluation, NTIC establishes a reserve for specific accounts and notes receivable that it believes are uncollectible, as well as an estimate of uncollectible receivables not specifically known. Deterioration in the financial condition of any key customer or joint venture or a significant slowdown in the economy could have a material negative impact on NTIC's ability to collect a portion or all of the accounts and notes receivable. NTIC believes that an analysis of historical trends and its current knowledge of potential collection problems provide NTIC with sufficient information to establish a reasonable estimate for an allowance for doubtful accounts. However, since NTIC cannot predict with certainty future changes in the financial stability of its customers or joint ventures, NTIC's actual future losses from uncollectible accounts may differ from its estimates. In the event NTIC determined that a smaller or larger uncollectible accounts reserve is appropriate, NTIC would record a credit or charge to selling expense in the period that it made such a determination.

Recoverability of Long-Lived Assets

NTIC reviews its long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable and determines potential impairment by comparing the carrying value of the assets with expected net cash flows expected to be provided by operating activities of the business or related products. If the sum of the expected undiscounted future net cash flows were less than the carrying value, NTIC would determine whether an impairment loss should be recognized. An impairment loss would be measured by comparing the amount by which the carrying value exceeds the fair value of the asset.

Foreign Currency Translation (Accumulated Other Comprehensive Loss)

The functional currency of each international joint venture and subsidiary is the applicable local currency. The translation of the applicable foreign currencies into U.S. dollars is performed for balance sheet accounts using exchange rates in effect at the balance sheet date and for revenue and expense accounts using an average monthly exchange rate. Translation gains or losses are reported as an element of accumulated other comprehensive income (loss).

NTIC (excluding NTIC China, Zerust Brazil, Natur-Tec India, Natur-Tec Lanka, NTI Asean, Zerust Singapore, Zerust Vietnam, Zerust Mexico, NTI Europe, and NTIC's joint ventures) conducts all foreign transactions based on the U.S. dollar. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change the equity in income from joint ventures reflected in NTIC's consolidated statements of operations.

Stock-Based Compensation

NTIC recognizes compensation cost relating to share-based payment transactions, including grants of employee stock options and transactions under NTIC's employee stock purchase plan, in its consolidated financial statements. That cost is measured based on the fair value of the equity or liability instruments issued. NTIC measures the cost of employee services received in exchange for stock options or other stock-based awards based on the grant-date fair value of the award and recognizes the cost over the period the employee is required to provide services for the award.

Inventory Valuation

NTIC's inventories consist primarily of production materials and finished goods. NTIC purchases production materials and finished goods based on forecasted demand and records inventory at the lower of cost or net realizable value. Cost is determined by the first-in, first-out (FIFO) method. Management regularly assesses inventory valuation based on current and forecasted usage, demand and pricing, shelf life, customer inventory-related contractual obligations, and other considerations. If actual results differ from management estimates with respect to the actual or projected selling of inventories at amounts less than their carrying amounts, NTIC would adjust its inventory balances accordingly.

Income Taxes

NTIC utilizes the asset and liability method of accounting for income taxes, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Deferred income tax assets and liabilities are determined based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in operations in the period that includes the enactment date.

NTIC records net deferred tax assets to the extent NTIC believes these assets will more likely than not be realized. In making such a determination, NTIC considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations, including the prior three-year history. In the event NTIC determines that it would be able to realize its deferred income tax assets in the future in excess of their net recorded amount, NTIC makes an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

Recent Accounting Pronouncements

See Note 2 to NTIC's consolidated financial statements for a discussion of recent accounting pronouncements.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

NTIC is exposed to some market risk stemming from changes in foreign currency exchange rates, commodity prices, and interest rates.

Because the functional currency of NTIC's foreign operations and investments in its foreign joint ventures is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese Yen, the Indian Rupee, the Chinese Renminbi, the South Korean Won, and the English Pound against the U.S. Dollar. NTIC's fees for services provided to joint ventures and dividend distributions from these foreign entities are paid in foreign currencies, and, thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's reported net income. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

Some raw materials used in NTIC's products are exposed to commodity price changes. The primary commodity price exposures are with a variety of plastic resins.

Any outstanding advances under NTIC's $5,000,000 amended and restated revolving line of credit with PNC Bank bear interest at an annual rate based on daily LIBOR plus 2.50%. As of August 31, 2021, NTIC had no borrowings under the line of credit. This line of credit was increased from $3,000,000 to $5,000,000 effective as of August 31, 2021.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

The following items are included herein:

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the board of directors of
Northern Technologies International Corporation and Subsidiaries:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Northern Technologies International Corporation and Subsidiaries (the "Company") as of August 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows, for each of the two years in the period ended August 31, 2021, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of August 31, 2021 and 2020, and the results of its operations and its cash flows for each of the two years in the period ended August 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

Critical audit matters are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Baker Tilly US, LLP

We have served as the Company's auditor since 2004.

Minneapolis, Minnesota
November 19, 2021

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS - AUGUST 31, 2021 AND 2020

	August 31, 2021	August 31, 2020
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 7,680,641	$ 6,403,032
Available for sale securities	4,634	5,544,722
Receivables:		
Trade excluding joint ventures, less allowance for doubtful accounts of $382,000 as of August 31, 2021 and $90,000 as of August 31, 2020	11,128,805	8,072,212
Trade joint ventures	624,808	475,900
Fees for services provided to joint ventures	1,505,127	927,286
Income taxes	386,574	19,907
Inventories	11,114,207	10,961,796
Prepaid expenses	1,302,293	797,495
Total current assets	33,747,089	33,202,350
PROPERTY AND EQUIPMENT, NET	11,821,458	7,110,789
OTHER ASSETS:		
Investments in joint ventures	27,623,768	24,090,826
Deferred income taxes	92,554	209,729
Patents and trademarks, net	709,572	802,006
Operating lease right of use asset	376,438	658,788
Total other assets	28,802,332	25,761,349
Total assets	$ 74,370,879	$ 66,074,488
LIABILITIES AND EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 4,290,972	$ 3,205,241
Income taxes payable	178,923	310,922
Accrued liabilities:		
Payroll and related benefits	2,879,468	1,314,978
Other	894,497	880,118
Current portion of operating lease	272,336	386,345
Total current liabilities	8,516,196	6,097,604
LONG-TERM LIABILITIES:		
Operating lease, less current portion	104,102	272,443
Total long-term liabilities	104,102	272,443
COMMITMENTS AND CONTINGENCIES (Note 15)		
EQUITY:		
Preferred stock, no par value; authorized 10,000 shares; none issued and outstanding	—	—
Common stock, $0.02 par value per share; authorized 15,000,000 shares as of August 31, 2021 and August 31, 2020; issued and outstanding 9,184,811 and 9,099,990, respectively	183,696	182,000
Additional paid-in capital	18,736,268	17,415,043
Retained earnings	46,973,092	42,472,810
Accumulated other comprehensive loss	(3,525,030)	(3,410,438)
Stockholders' equity	62,368,026	56,659,415
Non-controlling interests	3,382,555	3,045,026
Total equity	65,750,581	59,704,441
Total liabilities and equity	$ 74,370,879	$ 66,074,488

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

YEARS ENDED AUGUST 31, 2021 AND 2020

	2021	2020
NET SALES:		
Net sales, excluding joint ventures	$ 53,470,623	$ 45,666,045
Net sales, to joint ventures	3,023,196	1,972,646
Total net sales	56,493,819	47,638,691
Cost of goods sold	36,920,814	31,609,274
Gross profit	19,573,005	16,029,417
JOINT VENTURE OPERATIONS:		
Equity in income from joint ventures	7,465,214	4,270,327
Fees for services provided to joint ventures	5,964,260	4,612,885
Total joint venture operations	13,429,474	8,883,212
OPERATING EXPENSES:		
Selling expenses	12,016,974	10,656,689
General and administrative expenses	8,262,173	8,688,309
Research and development expenses	4,400,479	3,979,455
Total operating expenses	24,679,626	23,324,453
OPERATING INCOME	8,322,853	1,588,176
INTEREST INCOME	151,875	167,733
INTEREST EXPENSE	(16,086)	(16,034)
INCOME BEFORE INCOME TAX EXPENSE	8,458,642	1,739,875
INCOME TAX EXPENSE	1,461,905	2,674,635
NET INCOME (LOSS)	6,996,737	(934,760)
NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	715,499	402,949
NET INCOME (LOSS) ATTRIBUTABLE TO NTIC	$ 6,281,238	$ (1,337,709)
NET INCOME (LOSS) ATTRIBUTABLE TO NTIC PER COMMON SHARE:		
Basic	$ 0.69	$ (0.15)
Diluted	$ 0.64	$ (0.15)
WEIGHTED AVERAGE COMMON SHARES ASSUMED OUTSTANDING:		
Basic	9,116,472	9,096,981
Diluted	9,874,139	9,096,981
CASH DIVIDENDS DECLARED PER COMMON SHARE	$ 0.20	$ 0.13

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

YEARS ENDED AUGUST 31, 2021 AND 2020

	2021	2020
NET INCOME (LOSS)	$ 6,996,737	$ (934,760)
OTHER COMPREHENSIVE INCOME (LOSS) – FOREIGN CURRENCY TRANSLATION ADJUSTMENT	(92,562)	1,150,138
COMPREHENSIVE INCOME	6,904,175	215,378
LESS: COMPREHENSIVE INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	(737,529)	(370,347)
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO NTIC	$ 6,166,646	$ (154,969)

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
YEARS ENDED AUGUST 31, 2021 AND 2020

	STOCKHOLDERS' EQUITY						
	Common Stock		Additional Paid-in	Retained	Accumulated Other Comprehensive	Non-Controlling	Total
	Shares	Amount	Capital	Earnings	Loss	Interests	Equity
BALANCE AT AUGUST 31, 2019	9,086,816	$181,736	$16,013,338	$ 44,992,719	$ (4,593,178)	$ 3,074,679	$ 59,669,294
Stock options exercised	6,823	137	(137)	—	—	—	—
Stock issued for employee stock purchase plan	6,351	127	64,068	—	—	—	64,195
Stock option expense	—	—	1,337,774	—	—	—	1,337,774
Dividends paid to stockholders	—	—	—	(1,182,200)	—	—	- (1,182,200)
Dividend received by non-controlling interest	—	—	—	—	—	(400,000)	(400,000)
Net income (loss)	—	—	—	(1,337,709)	—	402,949	(934,760)
Other comprehensive income (loss)	—	—	—	—	1,182,740	(32,602)	1,150,138
BALANCE AT AUGUST 31, 2020	9,099,990	$182,000	$17,415,043	$ 42,472,810	$ (3,410,438)	$ 3,045,026	$ 59,704,441
Stock options exercised	74,950	1,499	582,915	—	—	—	584,414
Stock issued for employee stock purchase plan	9,871	197	74,136	—	—	—	74,333
Stock option expense	—	—	664,174	—	—	—	664,174
Dividends paid to stockholders	—	—	—	(1,780,956)	—	—	- (1,780,956)
Dividend received by non-controlling interest	—	—	—	—	—	(400,000)	(400,000)
Net income	—	—	—	6,281,238	—	715,499	6,996,737
Other comprehensive income (loss)	—	—	—	—	(114,592)	22,030	(92,562)
BALANCE AT AUGUST 31, 2021	9,184,811	$183,696	$18,736,268	$ 46,973,092	$ (3,525,030)	$ 3,382,555	$ 65,750,581

See notes to consolidated financial statements.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED AUGUST 31, 2021 AND 2020

	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income (loss)	$ 6,996,737	$ (934,760)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Stock-based compensation	664,174	1,337,774
Depreciation expense	905,299	836,601
Amortization expense	203,088	231,624
Change in allowance for doubtful accounts	262,000	25,000
Equity in income from joint ventures	(7,465,214)	(4,270,327)
Dividends received from joint ventures	3,665,365	5,672,099
Loss on disposal of property and patents	-	173,810
Deferred income taxes	114,620	1,424,529
Changes in current assets and liabilities:		
Receivables:		
Trade, excluding joint ventures	(3,030,655)	1,680,611
Trade, joint ventures	(148,908)	348,573
Fees for services provided to joint ventures	(577,841)	340,714
Income taxes	(362,438)	424,002
Inventories	58,314	(435,712)
Prepaid expenses and other	(487,771)	279,312
Accounts payable	866,597	(1,229,510)
Income tax payable	(160,231)	302,641
Accrued liabilities	1,389,804	(1,294,911)
Net cash provided by operating activities	2,892,940	4,912,070
CASH FLOWS FROM INVESTING ACTIVITIES:		
Proceeds from the sale of property and equipment	-	2,190
Purchase of available for sale securities	(800,000)	(4,000,000)
Proceeds from the sale of available for sale securities	6,340,088	2,020,536
Purchases of property and equipment	(5,532,750)	(711,412)
Investments in patents	(110,654)	(95,996)
Net cash used in investing activities	(103,316)	(2,784,682)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Dividend received by non-controlling interest	(400,000)	(400,000)
Dividends paid on NTIC common stock	(1,780,956)	(1,182,200)
Proceeds from employee stock purchase plan	74,333	64,195
Proceeds from exercise of stock options	584,414	—
Net cash used in financing activities	(1,522,209)	(1,518,005)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	10,194	(63,109)
NET INCREASE IN CASH AND CASH EQUIVALENTS	1,277,609	546,274
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	6,403,032	5,856,758
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 7,680,641	$ 6,403,032

See notes to consolidated financial statements.

1. NATURE OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

Nature of Business – Northern Technologies International Corporation and its Subsidiaries (collectively, the Company) develop and market proprietary environmentally beneficial products and services in over 65 countries either directly or via a network of joint ventures, independent distributors, and agents. The Company's primary business is corrosion prevention marketed mainly under the ZERUST® brand. The Company has been selling its proprietary ZERUST® rust and corrosion inhibiting products and services to the automotive, electronics, electrical, mechanical, military, and retail consumer markets for over 45 years and, more recently, has targeted and expanded into the oil and gas industry. The Company also sells a portfolio of bio-based and certified compostable (fully biodegradable) polymer resin compounds and finished products under the Natur-Tec® brand. These products are intended to reduce the Company's customers' carbon footprint and provide environmentally sound disposal options. The Company's two operating segments are ZERUST and Natur-Tec.

The Company participates, either directly or indirectly, in 18 active joint venture arrangements in North America, Europe, and Asia. Each of these joint ventures generally manufactures and markets products in the geographic territory to which it is assigned. While most of the Company's joint ventures exclusively sell rust and corrosion inhibiting products, some of the joint ventures also sell the Company's Natur-Tec® resin compounds and finished products. The profits of joint ventures are shared by the respective joint venture owners in accordance with their respective ownership percentages. The Company typically owns 50% or less of its joint venture entities and does not control the decisions of these entities, including dividend declaration or amount in any given year.

Impact of COVID-19 Pandemic – In March 2020, the World Health Organization declared the novel coronavirus (COVID-19) outbreak a global pandemic. As a result of the COVID-19 pandemic and related government mandated restrictions on the Company's business as well as the businesses of its joint ventures, customers and suppliers, disruption to the Company's business and the manufacture and sale of its products and services has occurred and is expected to continue into fiscal 2022. In fiscal year 2021, the Company was impacted by shipping issues, including freight container shortages, shipping delays, and increased costs, and supply chain issues, including longer lead times and raw material cost increases.

Principles of Consolidation – NTIC evaluates its voting and variable interests in entities on a qualitative and quantitative basis. NTIC consolidates entities in which it concludes it has the power to direct the activities that most significantly impact an entity's economic success and has the obligation to absorb losses or the right to receive benefits that could be significant to the entity. The consolidated financial statements include the accounts of Northern Technologies International Corporation, its wholly-owned subsidiaries, Northern Technologies Holding Company, LLC, NTIC (Shanghai) Co., Ltd. (NTIC China), ZERUST-EXCOR MEXICO, S. de R.L. de C.V (Zerust Mexico), NTIC Europe GmbH (NTI Europe), NTIC's majority-owned subsidiary in India, Natur-Tec India Private Limited (Natur-Tec India), NTIC's majority-owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A. (Zerust Brazil), NTIC's majority-owned subsidiary in Sri Lanka, Natur Tec Lanka (Pvt) Ltd (Natur Tec Lanka), and NTIC's majority-owned holding company, NTI Asean LLC (NTI Asean), and its wholly owned subsidiaries Zerust Singapore Pte Ltd (Zerust Singapore) and Zerust Vietnam Co. Ltd (Zerust Vietnam). NTIC's consolidated financial statements do not include the accounts of any of its joint ventures. Effective as of September 1, 2021, Harita-NTI Limited (Harita-NTI) will be consolidated in the Company's consolidated financial statements since the Company purchased the remaining 50% ownership interest of Harita-NTI effective as of September 1, 2021.

Non-Controlling Interests – The Company owns 75% of Natur-Tec India, 75% of Natur Tec Lanka, 85% of Zerust Brazil, 60% of NTI Asean, 60% of Zerust Singapore Pte Ltd, and 60% of Zerust Vietnam Co. Ltd. The remaining ownership of the consolidated entities are accounted for as non-controlling interests and reported as part of equity in the consolidated financial statements. The Company allocates gains and losses to the non-controlling interest even when such allocation results in a deficit balance, reducing the losses attributed to the controlling interest. Changes in ownership interests are treated as equity transactions if the Company maintains control.

Net Sales – The Company includes net sales to its joint ventures and net sales to unaffiliated customers as separate line items on its consolidated statements of operations. There are no sales originating from the Company's joint ventures included in the amount, as the Company's investments in its joint ventures are accounted for using the equity method.

When determining recognition of revenue arrangements the Company performs the following five steps: (1) identify the contracts with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; and (5) recognize revenue when or as the entity satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that the entity will collect the consideration it is entitled to in exchange for the goods it transfers to, or services it performs for, the customer.

Generally, the Company's performance obligations are satisfied when the customers take possession of the products, which normally occurs at the shipping point or destination depending on the terms of the contracts. The Company's services are generally sold based upon quotes or contracts with customers that include a fixed or determinable price, and sales arrangements do not contain any significant financing component for its customers. The Company does not recognize revenue related to product warranties, nor does the Company incur significant contract costs. Customer arrangements do not generate contract assets or liabilities.

Revenue Recognition – Revenue is measured based on consideration specified in the contract with a customer, adjusted for any applicable estimates of variable consideration and other factors affecting the transaction price, including noncash consideration, consideration paid or payable to customers, and significant financing components. Revenue from all customers is recognized when a performance obligation is satisfied by transferring control of a distinct good or service to a customer.

Individually promised goods and services in a contract are considered a distinct performance obligation and accounted for separately if the customer can benefit from the individual good or service on its own or with other resources that are readily available to the customer and the good or service is separately identifiable from other promises in the arrangement. When an arrangement includes multiple performance obligations, the consideration is allocated between the performance obligations in proportion to their estimated standalone selling price. Costs related to products delivered are recognized in the period incurred, unless criteria for capitalization of costs are met. Costs of revenues consist primarily of direct labor, manufacturing overhead, materials, and components. The Company does not incur significant upfront costs to obtain a contract. If costs to obtain a contract were to become material, the costs would be recorded as an asset and amortized to expense in a manner consistent with the related recognition of revenue.

The Company excludes government assessed and imposed taxes on revenue generating transactions that are invoiced to customers from revenue. The Company includes freight billed to customers in revenue. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of goods sold.

The timing of revenue recognition, billing, and cash collections results in accounts receivable on the consolidated balance sheet.

Performance Obligations - A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. A contract's transaction price is allocated to each distinct performance obligation in proportion to its standalone selling price and recognized as revenue when, or as, the performance obligation is satisfied. The Company's various performance obligations and the timing or method of revenue recognition are discussed below. The Company's technical service consultants work directly with the end users of NTIC's ZERUST® rust and corrosion inhibiting products to analyze their specific needs and develop systems to meet their performance requirements.

The Company sells its products to both distributors and end-users. Each unit of product delivered under a customer order represents a distinct and separate performance obligation, as the customer can benefit from each unit on its own or with other resources that are readily available to the customer, and each unit of product is separately identifiable from other products in the arrangement.

The transaction price for the Company's products is the invoiced amount. The Company does not have variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives, or other items impacting transaction price. The purchase order pricing in arrangements with customers is deemed to approximate standalone selling price; therefore, the Company does not need to allocate proceeds on a relative standalone selling price allocation between performance obligations. The Company applies the practical expedient in paragraph 606-10-50-14 and does not disclose information about remaining performance obligations that have original expected durations of one year or less. There are no material obligations that extend beyond one year.

Revenue is recognized when transfer of control occurs, as defined by the terms in the customer agreement. The Company immediately recognizes incidental items that are immaterial in the context of the contract. The Company has applied the practical expedient in paragraph 606-10-25-16A and does not assess if immaterial items are promised goods or services. The Company has also applied the practical expedient in paragraph 606-10-32-18 regarding the adjustment of the promised amount of consideration for the effects of a significant financing component when the customer pays for that good or service within one year or less, as the Company does not have any significant financing components in its customer arrangements since payment is received at or shortly after the point of sale, generally thirty to ninety days.

The Company estimates returns based on an analysis of historical experience if the right to return products is granted to its customers. The Company does not record a return asset, as non-conforming products are generally not returned. The Company's return policy does not vary by geography. The customer has no rotation or price protection rights, and the Company is not under a warranty obligation.

Sales Commissions – Sales commissions paid to sales representatives are eligible for capitalization, as they are incremental costs that would not have been incurred without entering into a specific sales arrangement and are recoverable through the expected margin on the transaction. The Company has elected to apply the practical expedient provided by ASC 340-40-25-4 and recognize the incremental costs of obtaining contracts as an expense when incurred, as the amortization period of the assets that would have otherwise been recognized is one year or less. The Company records these costs as a selling expense.

Product Warranty – The Company offers warranties on various products and services. These warranties are assurance type warranties that are not sold on a standalone basis; therefore, they are not considered distinct performance obligations. The Company estimates the costs that may be incurred under its warranties and records a liability in the amount of such costs at the time the revenue is recognized for the product sale.

International Revenue – The Company markets its products to numerous countries in North America, Europe, Latin America, Asia, and other parts of the world. See Note 11, Segment and Geographical Information, for information regarding revenue disaggregation by geography.

Trade Receivables – Payment terms for the Company's unaffiliated customers are determined based on credit risk and vary by customer. The Company typically offers standard payment terms to unaffiliated customers of net 30 days. The Company does not accrue interest on past due accounts receivable. The Company reviews the credit histories of its customers before extending unsecured credit. The Company presents accounts and notes receivable net of an allowance for doubtful accounts. Each quarter, the Company prepares an analysis of its ability to collect outstanding receivables that provides a basis for an allowance estimate for doubtful accounts. In doing so, the Company evaluates the age of its receivables, past collection history, current financial conditions of key customers and its joint ventures, and economic conditions. Based on this evaluation, the Company establishes a reserve for specific accounts and notes receivable that it believes are uncollectible, as well as an estimate of uncollectible receivables not specifically known. The Company believes that an analysis of historical trends and its current knowledge of potential collection problems provide the Company with sufficient information to establish a reasonable estimate for an allowance for doubtful accounts. In the event the Company determines that a smaller or larger uncollectible accounts reserve is appropriate, the Company records a credit or charge to selling expense in the period that it made such determination. Accounts receivable have been reduced by an allowance for uncollectible accounts of $382,000 as of August 31, 2021 and $90,000 as of August 31, 2020. Accounts are considered past due based on terms agreed upon between the Company and the customer. Accounts receivable are written-off only after all collection attempts have failed and are based on individual credit evaluation and specific circumstances of the customer.

Trade Receivables from Joint Ventures – Trade receivables from joint ventures arise from sales of products the Company makes to its joint ventures. Payment terms for the Company's joint ventures also are determined based on credit risk; however, additional consideration is given to the individual joint venture due to the transportation time associated with ocean delivery of most products and certain other factors. Generally, accounts receivable from the Company's joint ventures unpaid after 90 days are considered past due. The Company does not accrue interest on past due balances. The Company periodically reviews amounts due from its joint ventures for collectability and, based on past experience and continuous review of the balances due, determined that an allowance for doubtful accounts related to its joint venture receivables was not necessary as of August 31, 2021 or 2020.

Fees for Services Provided to Joint Ventures – The Company provides services to its joint ventures including consulting, legal, travel, insurance, technical, and marketing services based on licensing or other agreements with its joint ventures. The Company receives fees for the services it provides to its joint ventures. The fees for services received by the Company from its joint ventures are generally based on either a flat fee or a percentage of net sales by the Company's joint ventures depending on local laws and tax regulations. Under the Company's agreements with its joint ventures, amounts are earned when product is shipped from joint venture facilities, at which point a sale is deemed to have occurred and results in obligation for the joint venture to pay the royalty and recognition of the fee by the Company. The Company reviews the financial situation of each of its joint ventures to assist in the likelihood of collections on amounts earned. The Company accounts for these fees on a cash basis if uncertainty exists surrounding the collection of such fees.

Cash and Cash Equivalents – The Company includes as cash and cash equivalents highly liquid, short-term investments with maturity of three months or less when purchased, which are readily convertible into known amounts of cash. The Company maintains its cash in high quality financial institutions. The balances, at times, may exceed federally insured limits.

Available for Sale Securities – Available for sale securities are recorded at fair value. Unrealized holding gains and losses on available for sale securities are not significant.

Inventories – Inventories are recorded at the lower of cost (first-in, first-out basis) or net realizable value.

Property and Depreciation – Property and equipment are stated at cost. Depreciation is computed using the straight-line method based on the estimated service lives of the various assets as follows:

Buildings and improvements	5-30 years
Machinery and equipment	3-10 years

Patents and Trademarks – Patents and trademarks, including acquisition costs, are stated at cost, less accumulated amortization. Amortization is computed using the straight-line method over the estimated useful lives of the respective assets. Upon retirement, the cost of assets disposed and the related accumulated amortization are removed from the accounts, and any resulting gain or loss is credited or charged to operations.

Investments in Joint Ventures – Investments in the Company's joint ventures are accounted for using the equity method. Under the equity method, investments are initially recorded at cost and are adjusted for dividends, distributed and undistributed earnings and losses, changes in foreign currency exchange rates, and additional investments. In the event the Company's share of a joint venture's cumulative losses exceeds the Company's investment balance, the balance is reported at zero value until proportionate income exceeds the losses. The Company assesses its joint ventures for impairment on an annual basis as of August 31 of each year as part of its fiscal year end analysis. In addition to the annual review for impairment, the Company reviews the operating results of each joint venture on a quarterly basis in comparison to its historical operating results and its accrual of fees for services provided to joint ventures. If the operating results of a joint venture do not meet financial performance expectations, an additional evaluation is performed on the joint venture. The Company's evaluation of its investments in joint ventures requires the Company to make assumptions about future cash flows of its joint ventures. These assumptions require significant judgment, and actual results may differ from assumed or estimated amounts. All investments in joint ventures had positive equity as of August 31, 2021 and 2020. The Company considers any of its joint ventures to be significant and discloses entity specific financial information if the joint venture's income or assets make up more than 20% of the Company's total assets or income.

The Company classifies distributions received from its joint ventures based on the nature of the distributions, generally, in operating activities on the consolidated statements of cash flows.

If the Company is no longer able to exercise significant influence over operating and financial policy of a joint venture previously accounted for under the equity method, it maintains the investment at the carrying value as of the date that significant influence no longer exists and discontinues accruing the proportionate earnings or losses of the investment.

Investments are considered to be impaired when a decline in fair value is judged to be other-than-temporary. Fair value is calculated based on publicly available market information or other estimates determined by management. The Company employs a systematic methodology on a quarterly basis that considers available quantitative and qualitative evidence in evaluating potential impairment of our investments. If the cost of an investment exceeds its fair value, the Company evaluates, among other factors, general market conditions, credit quality, the duration and extent to which the fair value is less than cost, and for equity securities, the Company's intent and ability to hold, or plans to sell, the investment. The Company also considers specific adverse conditions related to the financial health of and business outlook for the investee, including industry and sector performance, changes in technology, and operational and financing cash flow factors. Once a decline in fair value is determined to be other-than-temporary, an impairment charge is recorded to other income (expense), and a new cost basis in the investment is established.

Recoverability of Long-Lived Assets – The Company reviews its long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. The Company determines potential impairment by comparing the carrying value of the assets with expected net cash flows expected to be provided by operating activities of the business or related products. If the sum of the expected undiscounted future net cash flows is less than the carrying value, the Company evaluates whether an impairment loss should be recognized. An impairment loss is measured by comparing the amount by which the carrying value exceeds the fair value of the asset. When evaluating assets for impairment, the Company groups long-lived assets with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities.

Income Taxes – The Company utilizes the asset and liability method of accounting for income taxes, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Deferred income tax assets and liabilities are determined based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in operations in the period that includes the enactment date.

The Company records net deferred tax assets to the extent the Company believes these assets will more likely than not be realized. In making such a determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. In the event the Company determines that it would be able to realize its deferred assets in the future in excess of their net recorded amount, the Company makes an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The Company records uncertain tax positions on the basis of a two-step process whereby the Company determines whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position and those tax positions that meet the more-likely-than-not recognition threshold. The Company recognizes the largest amount of tax benefit that is greater than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

Foreign Currency Translation (Accumulated Other Comprehensive Income (Loss)) – The functional currency of NTIC China, Zerust Brazil, Natur-Tec India, Natur Tec Lanka, Zerust Mexico, Zerust Singapore, Zerust Vietnam, NTI Europe, and each unconsolidated international joint venture is the applicable local currency. The translation of the applicable foreign currencies into U.S. dollars is performed for balance sheet accounts using exchange rates in effect at the balance sheet date and for revenue and expense accounts using an average monthly exchange rate. Translation gains or losses are reported as an element of other comprehensive income (loss).

The Company (excluding NTIC China, Zerust Brazil, Natur-Tec India, Natur Tec Lanka, Zerust Singapore, Zerust Vietnam, NTI Asean, Zerust Mexico, NTI Europe, and NTIC's joint ventures) conducts all foreign transactions based on the U.S. dollar. Since investments in joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates are reflected as a foreign currency translation adjustment and do not change the equity in income from joint ventures reflected in the Company's consolidated statements of operations.

Fair Value of Financial Instruments – The carrying value of cash and cash equivalents, available for sale securities, short-term accounts and notes receivable, notes payable, trade accounts payables, and other accrued expenses approximate fair value because of the short maturity of those instruments.

Shipping and Handling – The Company records all amounts billed to customers in a sales transaction related to shipping and handling as sales. The Company records costs related to shipping and handling in cost of goods sold.

Research and Development – The Company expenses all costs related to product research and development as incurred.

Common Stock – The Company issues authorized but unissued shares of common stock upon the exercise of stock options.

Stock-Based Compensation – The Company recognizes compensation cost relating to share-based payment transactions, including grants of employee stock options and transactions under the Company's employee stock purchase plan, in its consolidated financial statements. That cost is measured based on the fair value of the equity or liability instruments issued. The Company measures the cost of employee services received in exchange for stock options and other stock-based awards based on the grant-date fair value of the award and recognizes the cost over the period the employee is required to provide services for the award (generally the vesting term).

Subsequent Events – The Company has evaluated events occurring after the date of the consolidated financial statements for events requiring disclosure in the consolidated financial statements.

Use of Estimates – The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

2. ACCOUNTING PRONOUNCEMENTS

Recently Issued Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, which revises guidance for the accounting for credit losses on financial instruments within its scope, and in November 2018, issued ASU No. 2018-19 and in April 2019, issued ASU No. 2019-04 and in May 2019, issued ASU No. 2019-05, and in November 2019, issued ASU No. 2019-11, which amended the standard. The new standard introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments and modifies the impairment model for available-for-sale debt securities. The new approach to estimating credit losses (referred to as the current expected credit losses model) applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-maturity debt securities, net investments in leases and off-balance-sheet credit exposures. This ASU is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted. Entities are required to apply the standard's provisions as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The Company is still evaluating the impact of this ASU.

Although there are several other new accounting pronouncements issued or proposed by the FASB, which the Company has adopted or will adopt, as applicable, the Company does not believe any of these accounting pronouncements has had or will have a material impact on the Company's consolidated financial position or operating results.

3. INVENTORIES

Inventories consisted of the following:

	August 31, 2021	August 31, 2020
Production materials	$ 4,453,688	$ 3,866,791
Finished goods	6,660,519	7,095,005
	$ 11,114,207	$ 10,961,796

4. PROPERTY AND EQUIPMENT, NET

Property and equipment, net consisted of the following:

	August 31, 2021	August 31, 2020
Land	$ 310,365	$ 310,365
Buildings and improvements	13,149,258	8,167,783
Machinery and equipment	5,453,679	4,940,912
	18,913,302	13,419,060
Less accumulated depreciation	(7,091,844)	(6,308,271)
	$ 11,821,458	$ 7,110,789

5. PATENTS AND TRADEMARKS, NET

Patents and trademarks, net consisted of the following:

	August 31, 2021	August 31, 2020
Patents and trademarks	$ 3,018,507	$ 2,907,852
Less accumulated amortization	(2,308,935)	(2,105,846)
	$ 709,572	$ 802,006

Patent and trademark costs are amortized over seven years. Costs incurred related to patents and trademarks are capitalized until filed and approved, at which time the amounts capitalized to date are amortized, and any further costs, including maintenance costs, are expensed as incurred. Amortization expense was $203,088 and $231,624 for the years ended August 31, 2021 and 2020, respectively. Amortization expense is estimated to be $190,000 in each of the next four fiscal years.

6. INVESTMENTS IN JOINT VENTURES

The consolidated financial statements of the Company's foreign joint ventures are initially prepared using the accounting principles accepted in the respective joint ventures' countries of domicile. Amounts related to foreign joint ventures reported in the below tables and the accompanying consolidated financial statements have subsequently been adjusted to conform with accounting principles generally accepted in the United States of America in all material respects. All material profits on sales recorded that remain on the consolidated balance sheet from the Company to its joint ventures and from joint ventures to other joint ventures have been eliminated for financial reporting purposes.

The Company considers the Company's joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH (EXCOR) to be individually significant to the Company's consolidated assets and income as of August 31, 2021. The Company considers the Company's joint venture EXCOR and the following other joint ventures in France, Finland, India and Thailand, respectively, to be individually significant to the Company's consolidated assets and income as of August 31, 2020: ACOBAL SAS, ZERUST OY, HARITA-NTI LIMITED and ZERUST SPECIALTY TECH CO. LTD. Harita-NTI Limited became a wholly owned subsidiary of the Company effective as of September 1, 2021. Financial information from the audited and unaudited financial statements of EXCOR and the Company's joint ventures in France, Finland, India and Thailand, as well as all the Company's other joint ventures, are summarized as follows:

	As of August 31, 2021		
	Total	EXCOR	OTHER
Current assets	$69,394,796	$33,886,655	$35,508,141
Total assets	73,814,402	36,211,520	37,602,882
Current liabilities	16,366,398	5,386,377	10,980,021
Noncurrent liabilities	1,455,524	-	1,455,524
Joint ventures' equity	55,992,480	30,825,144	25,167,336
Northern Technologies International Corporation's share of joint ventures' equity	27,623,768	15,412,574	12,211,194
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	24,702,778	14,697,490	10,005,288

	Fiscal Year Ended August 31, 2021		
	Total	EXCOR	OTHER
Net sales	$120,954,550	$46,522,688	$74,431,862
Gross profit	53,371,610	25,389,981	27,981,629
Net income	14,921,531	8,798,995	6,122,536
Northern Technologies International Corporation's share of equity in income of joint ventures	7,465,214	4,400,403	3,064,811
Northern Technologies International Corporation's dividends received from joint ventures	3,665,365	1,809,900	1,855,465

	As of August 31, 2020						
	Total	EXCOR	FRANCE	FINLAND	INDIA	THAILAND	OTHER
Current assets	$ 55,825,418	$ 25,742,619	$4,099,160	$1,955,879	$4,010,855	$4,022,399	$15,994,506
Total assets	60,295,587	28,449,772	4,873,484	2,261,147	4,242,660	4,055,451	16,413,073
Current liabilities	11,002,867	2,424,565	2,073,710	415,496	1,007,529	993,332	4,088,235
Noncurrent liabilities	365,274	—	—	—	32,999	—	332,275
Joint ventures' equity	48,927,446	26,025,207	2,799,774	1,845,651	3,202,132	3,062,119	11,992,563
Northern Technologies International Corporation's share of joint ventures' equity	24,090,826	13,012,606	1,399,887	922,814	1,603,013	1,531,060	5,621,446
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	21,855,747	12,981,701	1,399,887	902,814	738,191	1,429,060	4,404,094

	Fiscal Year Ended August 31, 2020						
	Total	EXCOR	FRANCE	FINLAND	INDIA	THAILAND	OTHER
Net sales	$ 87,030,062	$ 32,546,402	$8,133,294	$3,088,865	$5,481,303	$ 6,471,831	$31,308,367
Gross profit	39,532,750	18,739,471	3,061,433	1,916,001	2,498,196	2,046,478	11,271,171
Net income	8,545,473	5,266,541	473,137	419,728	697,349	503,884	1,184,834
Northern Technologies International Corporation's share of equity in income of joint ventures	4,270,327	2,622,423	237,490	209,972	349,218	253,192	598,032
Northern Technologies International Corporation's dividends received from joint ventures	5,672,099	4,675,850	—	325,635	261,220	160,074	249,320

The Company did not make any joint venture investments during fiscal 2021 or fiscal 2020.

7. CORPORATE DEBT

The Company has a revolving line of credit with PNC Bank of $5,000,000 at August 31, 2021. As described in more detail on Note 18 entitled "Subsequent Events," this line of credit was increased from $3,000,000 to $5,000,000 effective as of August 31, 2021. No amounts were outstanding under the line of credit as of August 31, 2021 or 2020. Outstanding advances under the line of credit bear interest at a rate equal to the daily LIBOR plus 2.50%. The line of credit matures on February 22, 2022. The line of credit is governed under an amended and restated loan agreement. The loan agreement contains covenants, including affirmative financial covenants, such as the maintenance of a minimum fixed charge coverage ratio, and negative covenants, which, among other things, limit the incurrence of additional indebtedness, loans and equity investments, disposition of assets, mergers and consolidations and other matters customarily restricted in such agreements. Under the loan agreement, the Company is subject to a minimum fixed charge coverage ratio of 1.10:1.00. As of August 31, 2021, the Company was in compliance with all debt covenants. As of August 31, 2021, NTIC did not have any letters of credit outstanding with respect to the letter of credit sub-facility available under the revolving line of credit with PNC Bank.

As of August 31, 2021, the Company had $104,363 of letters of credit with JP Morgan Chase Bank that are performance based and set to expire between 2021 and 2022.

8. STOCKHOLDERS' EQUITY

During fiscal 2021, NTIC's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of the Company's common stock as of the following record dates:

Declaration Date	Amount	Record Date	Payable Date
January 15, 2021	$0.065	February 3, 2021	February 17, 2021
April 23, 2021	$0.065	May 5, 2021	May 19, 2021
July 21, 2021	$0.065	August 4, 2021	August 18, 2021

During fiscal 2020, NTIC's Board of Directors declared cash dividends on the following dates in the following amounts to holders of record of the Company's common stock as of the following record dates:

Declaration Date	Amount	Record Date	Payable Date
October 22, 2019	$0.065	November 6, 2019	November 20, 2019
January 22, 2020	$0.065	February 5, 2020	February 19, 2020

On April 23, 2020, the Company announced the temporary suspension of its quarterly cash dividend pending clarity on the financial impact of COVID-19 on the Company. Therefore, NTIC's Board of Directors did not declare a cash dividend during the quarter ended May 31, 2020, the quarter ended August 31, 2020, or the quarter ended November 30, 2020. On January 15, 2021, the Company announced the reinstatement of its quarterly cash dividend.

On January 15, 2015, the Company's Board of Directors authorized the repurchase of up to $3,000,000 in shares of common stock through open market purchases or unsolicited or solicited privately negotiated transactions. This program has no expiration date but may be terminated by the Company's Board of Directors at any time. As of August 31, 2021, up to $2,640,548 of value in shares of common stock remained available for repurchase under the stock repurchase program.

During fiscal 2021, the Company did not repurchase or retire any shares of its common stock. During fiscal 2021, stock options to purchase an aggregate of 77,645 shares of common stock were exercised at a weighted average exercise price of $8.18 per share; some of the options were exercised on a cashless basis, resulting in the net issuance of 74,950 shares of common stock.

During fiscal 2020, the Company did not repurchase or retire any shares of its common stock. During fiscal 2020, stock options to purchase an aggregate of 11,975 shares of common stock were exercised at a weighted average exercise price of $5.13 per share; some of the options were exercised on a cashless basis, resulting in the net issuance of 6,823 shares of common stock.

9. NET INCOME (LOSS) PER COMMON SHARE

Basic net income (loss) per common share is computed by dividing net income (loss) by the weighted average number of common shares outstanding. Diluted net income (loss) per share assumes the exercise of stock options using the treasury stock method, if dilutive.

The following is a reconciliation of the net income (loss) per share computation for fiscal 2021 and fiscal 2020:

Numerator:		**August 31, 2021**		**August 31, 2020**
Net income (loss) attributable to NTIC	$	6,281,238	$	(1,337,709)
Denominator:				
Basic-weighted shares outstanding		9,116,472		9,096,981
Weighted shares assumed upon exercise of stock options		757,667		-
Diluted – weighted shares outstanding		9,874,139		9,096,981
Basic net income (loss) per share:	$	0.69	$	(0.15)
Diluted net income (loss) per share:	$	0.64	$	(0.15)

The dilutive impact summarized above relates to the periods when the average market price of the Company's common stock exceeded the exercise price of the potentially dilutive option securities granted. Net income per common share was based on the weighted average number of common shares outstanding during the periods when computing the basic net income per share. When dilutive, stock options are included as equivalents using the treasury stock market method when computing the diluted net income per share. Excluded from the computation of diluted net income per share as of August 31, 2021 were options outstanding to purchase 136,221 shares of common stock. Excluded from the computation of diluted net income per share as of August 31, 2020 were options outstanding to purchase 1,127,968 shares of common stock due to the net loss for the period.

10. STOCK-BASED COMPENSATION

The Company has three stock-based compensation plans under which stock options or other stock-based awards have been granted: the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan (the 2019 Plan), the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (the 2007 Plan) and the Northern Technologies International Corporation Employee Stock Purchase Plan (the ESPP). The 2019 Plan replaced the 2007 Plan with respect to future grants; and, therefore, no further awards may be made under the 2007 Plan. The Compensation Committee of the Board of Directors and the Board of Directors administer these plans.

The 2019 Plan provides for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock, stock unit awards, performance awards, and stock bonuses to eligible recipients to enable the Company and its subsidiaries to attract and retain qualified individuals through opportunities for equity participation in the Company and to reward those individuals who contribute to the achievement of the Company's economic objectives. On January 15, 2021, the Company's stockholders approved certain amendments to the 2019 Plan, including an increase in the number of shares of common stock available for issuance under the plan by an additional 800,000 shares. Subject to adjustment as provided in the 2019 Plan, up to a maximum of 1,600,000 shares of the Company's common stock are issuable under the 2019 Plan. Options granted generally have a term of ten years and become exercisable over a one- or three- year period beginning on the one-year anniversary of the date of grant. Options are granted at per share exercise prices equal to the market value of the Company's common stock on the date of grant. The Company issues new shares upon the exercise of options. During the fiscal years ended August 31, 2021 and 2020, the Company granted stock options under the 2019 Plan to purchase an aggregate of 419,874 and 300,770 shares of its common stock to various employees and directors, respectively. As of August 31, 2021, 879,356 shares of common stock remained available under the 2019 Plan.

The maximum number of shares of common stock of the Company available for issuance under the ESPP is 200,000 shares, subject to adjustment as provided in the ESPP. The ESPP provides for six-month offering periods beginning on September 1 and March 1 of each year. The purchase price of the shares is 90% of the lower of the fair market value of common stock at the beginning or end of the offering period. This discount may not exceed the maximum discount rate permitted for plans of this type under Section 423 of the Internal Revenue Code of 1986, as amended. The ESPP is compensatory for financial reporting purposes. The Company issued 5,225 and 2,754 shares on March 1, 2021 and 2020, respectively, and 4,646 and 3,597 shares on September 1, 2020 and 2019, respectively, under the ESPP. As of August 31, 2021, 74,822 shares of common stock remained available for sale under the ESPP.

The fair value of option grants is determined at the date of grant using the Black-Scholes option pricing model with the assumptions listed below. The volatility factor used in the Black-Scholes option pricing model is based on historical stock price fluctuations, and the risk-free interest rate is based on U.S. treasury rates appropriate for the expected term. Dividend yield and expected volatility are estimated using historical amounts that are anticipated to be consistent with current values. Expected life of the option is based on the life of the option agreements. Based on these valuations, the Company recognized compensation expense of $664,174 and $1,337,774 during fiscal 2021 and fiscal 2020, respectively, related to the options that vested during such time. As of August 31, 2021, the total compensation cost for non-vested options not yet recognized on the Company's consolidated statements of operations was $666,667, which is expected to be recognized during fiscal 2022 and fiscal 2023, based on outstanding options as of August 31, 2021. Future option grants will impact the compensation expense recognized. Stock-based compensation expense is included in general and administrative expense on the consolidated statements of operations.

The fair value of each option grant is estimated on the grant date using the Black-Scholes option pricing model with the following assumptions and results for the grants:

	Fiscal Year 2021	**Fiscal Year 2020**
Dividend yield	1.65%	2.41%
Expected volatility	45.4%	45.2%
Expected life of option	10 years	10 years
Weighted average risk-free interest rate	0.77%	1.40%

Stock option activity during the periods indicated was as follows:

	Number of Shares (#)	**Weighted Average Exercise Price**	**Aggregate Intrinsic Value**
Outstanding at August 31, 2019	839,173	$ 9.13	
Options granted	300,770	10.87	
Options exercised	(11,975)	5.13	
Options terminated	—	—	
Outstanding at August 31, 2020	1,127,968	$ 9.63	
Options granted	419,874	8.24	
Options exercised	(77,645)	8.18	
Options terminated	(43,546)	9.63	
Outstanding at August 31, 2021	1,426,651	$ 9.30	$ 10,514,418
Exercisable at August 31, 2021	1,022,802	$ 9.72	$ 7,108,474

The weighted average per share fair value of options granted during fiscal 2021 and fiscal 2020 was $8.24 and $10.87, respectively. The weighted average remaining contractual life of the options outstanding and exercisable as of August 31, 2021 was 6.20 years and 5.09 years, respectively.

11. SEGMENT AND GEOGRAPHIC INFORMATION

Segment Information

The Company's chief operating decision maker is its Chief Executive Officer. The Company's business is organized into two reportable segments: ZERUST® and Natur-Tec®. The Company has been selling its proprietary ZERUST® rust and corrosion inhibiting products and services to the automotive, electronics, electrical, mechanical, military, and retail consumer markets for over 45 years and, more recently, has targeted and expanded into the oil and gas industry. The Company also sells a portfolio of bio-based and compostable (fully biodegradable) polymer resins and finished products under the Natur-Tec® brand.

The following tables present the Company's business segment information:

	Fiscal 2021	Fiscal 2020
ZERUST® net sales	$ 45,554,434	$ 34,474,535
Natur-Tec® net sales	10,939,385	13,164,156
Total net sales	$ 56,493,819	$ 47,638,691

The following table sets forth the Company's cost of goods sold by segment:

	Fiscal 2021	Fiscal 2020
Direct cost of goods sold		
ZERUST®	$ 26,028,555	$ 18,717,684
Natur-Tec®	7,717,429	10,168,051
Indirect cost of goods sold	3,174,830	2,723,539
Total net cost of goods sold	$ 36,920,814	$ 31,609,274

The Company utilizes product net sales and direct and indirect cost of goods sold for each product in reviewing the financial performance of a product type. Further allocation of Company expenses or assets, aside from amounts presented in the tables above, is not utilized in evaluating product performance, nor does such allocation occur for internal financial reporting.

Sales to the Company's joint ventures are included in the foregoing geographic and segment information, however, sales by the Company's joint ventures to other parties are not included. The foregoing geographic and segment information represents only sales and cost of goods sold recognized directly by the Company.

All joint venture operations, including equity in income, fees for services, and related dividends, are related to ZERUST® products and services.

Geographic Information

Net sales by geographic location for fiscal 2021 and fiscal 2020 were as follows:

	Fiscal Year Ended August 31,	
	2021	2020
Inside the U.S.A. to unaffiliated customers	$ 22,039,456	$ 20,218,213
Outside the U.S.A. to:		
Joint ventures in which the Company is a shareholder directly and indirectly	3,023,196	1,972,646
Unaffiliated customers	31,431,167	25,447,832
	$ 56,493,819	$ 47,638,691

Net sales by geographic location are based on the location of the customer.

Fees for services provided to joint ventures by geographic location as a percentage of total fees for services provided to joint ventures, respectively, were as follows:

	Fiscal 2021	% of Total Fees for Services Provided to Joint Ventures	Fiscal 2020	% of Total Fees for Services Provided to Joint Ventures
Germany	$ 920,902	15.4%	$ 843,752	18.3%
Japan	826,403	13.9%	628,889	13.6%
Poland	798,570	13.4%	553,198	12.0%
Sweden	528,755	8.9%	372,017	8.1%
France	435,032	7.3%	310,661	6.7%
Thailand	399,563	6.7%	328,452	7.1%
India	392,074	6.6%	250,976	5.4%
Czech Republic	377,395	6.3%	270,032	5.9%
South Korea	317,042	5.3%	266,703	5.8%
United Kingdom	316,786	5.3%	255,121	5.5%
Finland	298,663	5.0%	256,375	5.6%
Indonesia	122,513	2.1%	99,543	2.2%
Other	230,562	3.8%	177,167	3.8%
	$ 5,964,260	100.0%	$ 4,612,885	100.0%

Sales to the Company's joint ventures are included in the foregoing segment and geographic information; however, sales by the Company's joint ventures to other parties are not included. The foregoing segment and geographic information represents only sales recognized directly by the Company and sold in that geographic territory.

See Note 6 for additional details on geographical information regarding equity in income from joint ventures.

The geographical distribution of total long-lived assets and net sales is as follows:

	At August 31, 2021	At August 31, 2020
China	$ 5,110,071	$ 376,088
Other	453,199	172,833
United States	6,258,188	6,561,868
Total long-lived assets	$ 11,821,458	$ 7,110,789

	Fiscal Year Ended August 31, 2021	Fiscal Year Ended August 31, 2020
China	$ 17,343,623	$ 13,409,770
Brazil	4,122,781	2,753,930
India	5,482,989	5,655,797
Other	7,504,970	5,600,982
United States	22,039,456	20,218,212
Total net sales	$ 56,493,819	$ 47,638,691

Long-lived assets located in China, Brazil, Germany, and India consist of property and equipment. These assets are periodically reviewed to assure the net realizable value from the estimated future production based on forecasted sales exceeds the carrying value of the assets.

Sales to the Company's joint ventures are included in the foregoing segment and geographic information; however, sales by the Company's joint ventures to other parties are not included. The foregoing segment and geographic information represents only sales recognized directly by the Company and sold in that geographic territory.

All joint venture operations, including equity in income, fees for services and related dividends, are primarily related to ZERUST® products and services.

12. RETIREMENT PLAN

The Company has a 401(k) employee savings plan. Employees who meet certain age and service requirements may elect to contribute up to 15% of their salaries. The Company typically contributes the lesser of 50% of the participant's contributions or 3.5% of the employee's salary. The Company recognized expense for the savings plan of $237,499 and $234,534 for fiscal 2021 and fiscal 2020, respectively.

13. RELATED PARTY TRANSACTIONS

During both fiscal 2021 and fiscal 2020, the Company made consulting payments of $144,000 to Bioplastic Polymers LLC, an entity owned by Ramani Narayan, Ph.D., a director of the Company.

14. INCOME TAXES

The provision for income taxes for the fiscal years ended August 31, 2021 and 2020 was approximately as follows:

	Fiscal Year Ended August 31,	
	2021	2020
Current:		
Federal	$ —	$ —
State	39,000	23,000
Foreign	1,307,000	1,226,000
	1,346,000	1,249,000
Deferred:		
Federal	—	1,501,000
State	—	101,000
Foreign	115,905	(176,365)
	115,905	1,425,635
	$ 1,461,905	$ 2,674,635

Reconciliations of the expected federal income tax at the statutory rate of 21.0% with the provisions for income taxes for the fiscal years ended August 31, 2021 and 2020 were approximately as follows:

	Fiscal Year Ended August 31,	
	2021	2020
Tax computed at statutory rates	$ 1,794,000	$ 365,000
State income tax, net of federal benefit	37,000	23,000
Tax effect on equity in income of international joint ventures	(1,560,000)	(888,000)
Tax effect of foreign operations	839,000	641,000
Deemed repatriation	—	108,000
Expired foreign tax credit	897,000	—
Research and development credit	(277,000)	(368,000)
Valuation allowance	(492,000)	2,797,000
Stock based compensation	75,000	189,000
Non-controlling interest	(83,000)	(55,000)
Other	231,905	(137,365)
	$ 1,461,905	$ 2,674,635

The Company has not provided U.S. income taxes or foreign withholding taxes with respect to its portion of the cumulative undistributed earnings of certain foreign subsidiaries and joint ventures that are essentially permanent in duration. As a result of the 2017 tax law changes, U.S. federal income taxes on dividends received from the Company's foreign subsidiaries and joint ventures after December 31, 2017 have been generally eliminated. However, the Company continues to be subject to foreign withholding taxes upon repatriation of any undistributed earnings that are not essentially permanent in duration. The Company recorded a tax expense of approximately $113,000 and tax benefit of approximately $76,000 during fiscal 2021 and fiscal 2020, respectively, representing changes in the deferred tax liability for foreign withholding taxes to be paid with respect to the portion of the cumulative undistributed earnings of foreign subsidiaries and joint ventures that the Company determined were not essentially permanent in duration.

The Company measures deferred tax assets and liabilities using enacted tax rates that will apply in the years in which the temporary differences are expected to be recovered or paid. The tax effect of the temporary differences and tax carryforwards comprising the net deferred taxes shown on the consolidated balance sheets as of August 31, 2021 and 2020 was approximately as follows:

	August 31, 2021	August 31, 2020
Accrued compensation	$ 539,300	$ 173,500
Inventory costs	55,100	64,000
Other accrued expenses	103,100	74,900
Lease liability	84,300	147,500
Goodwill and other intangible assets	453,000	581,200
Stock-based compensation	466,300	397,300
Foreign tax credit carryforward	4,893,300	5,790,500
Other credit and loss carryforwards	5,243,100	4,824,200
Total deferred tax assets	11,837,500	12,053,100
Valuation allowance	(11,447,500)	(11,561,700)
Total deferred tax assets after valuation allowance	390,000	491,400
Property and equipment	(7,300)	(50,700)
Right-of-use asset	(84,300)	(147,500)
Unremitted foreign earnings	(154,900)	—
Other	(50,900)	(83,400)
Total deferred tax liabilities	(297,400)	(281,600)
Net deferred tax assets	$ 92,600	$ 209,800

As of August 31, 2020, the Company had foreign tax credit carryforwards of $5,790,500 of which $897,000 expired during August 31, 2021. The remaining $4,893,300 of foreign tax credit carryforwards as of August 31, 2021 will begin to expire if not utilized prior to August 31, 2022. In addition, the Company had federal and state tax credit carryforwards of $3,552,500 as of August 31, 2021, which began to expire in fiscal 2022. These federal and state tax credit carryforwards consist primarily of federal and Minnesota research and development credit carryforwards. The Company also has a deferred tax asset of $1,065,500 for federal net operating loss carryforwards and $377,600 for state net operating loss carryforwards as of August 31, 2021. The federal net operating loss carryforward has an indefinite carryforward period. The state net operating loss carryforward will begin to expire if not utilized prior to August 31, 2022. The Company has a deferred tax asset of $247,500 for foreign net operating loss carryforwards, $223,300 of which has an indefinite carryforward period.

The Company records a tax valuation allowance to reduce deferred tax assets to the amount expected to be realized when it is more likely than not that some portion or all of its deferred tax assets will not be realized.

The Company determined based on all available evidence, including historical data and projections of future results, that it is more likely than not that its domestic deferred tax assets will not be realized due to the absence of objectively verifiable sources of taxable income. On the basis of this evaluation, the Company has recorded a valuation allowance of $11,447,500 and $11,561,700 as of August 31, 2021 and 2020, respectively, to recognize only the portion of the deferred tax assets that is more likely than not to be realized. The net deferred tax asset as of August 31, 2021 and 2020 relates entirely to non-US deferred tax assets which are expected to be realized by offset of deferred tax liability for withholding tax on cumulative undistributed earnings in foreign subsidiaries and joint ventures that the Company determined were not essentially permanent. The change in the valuation allowance totaled a decrease of $114,000 and an increase of $2,797,000 for the years ended August 31, 2021 and 2020, respectively.

The following is a tabular reconciliation of the total amounts of approximated unrecognized tax benefits:

	Fiscal Year Ended August 31,	
	2021	**2020**
Gross unrecognized tax benefits – beginning balance	$ 278,200	$ 248,000
Gross increases – prior period tax positions	4,400	15,200
Gross increases – current period tax positions	15,000	15,000
Gross unrecognized tax benefits – ending balance	$ 297,600	$ 278,200

The entire amount of unrecognized tax benefits would affect the effective tax rate if recognized. It is not expected that the amount of unrecognized tax benefits will change significantly in the next 12 months.

The Company recognizes interest related to unrecognized tax benefits and penalties as income tax expense. Accrued interest and penalties are included within the related tax liability line in the consolidated balance sheet. There was no liability for the payment of interest and penalties as of both August 31, 2021 and August 31, 2020.

The Company is subject to taxation in the United States and various states and foreign jurisdictions. With few exceptions, as of August 31, 2021, the Company is no longer subject to federal, state, local, or foreign examinations by tax authorities for years prior to August 31, 2018.

15. COMMITMENTS AND CONTINGENCIES

Operating Leases

The Company currently has operating leases for various buildings, equipment and vehicles. These leases are under non-cancelable operating lease agreements with expiration dates between December 31, 2021 and June 30, 2024. The Company has the option to extend certain leases to five or ten-year term(s) and has the right of first refusal on any sale.

The Company records lease liabilities within current liabilities or long-term liabilities based upon the length of time associated with the lease payments. The Company records its long-term operating leases as right-of-use assets. Upon initial adoption, using the modified retrospective transition approach, no leases with terms less than 12 months have been capitalized to the consolidated balance sheet consistent with ASC 842. Instead, these leases are recognized in the consolidated statement of operations on a straight-line expense throughout the lives of the leases. None of the Company's leases contain common area maintenance or security agreements.

The Company has made certain assumptions and judgments when applying ASC 842, the most significant of which is that the Company elected the package of practical expedients available for transition that allow the Company to not reassess whether expired or existing contracts contain leases under the new definition of a lease, lease classification for expired or existing leases and whether previously capitalized initial direct costs would qualify for capitalization under ASC 842. Additionally, the Company did not elect to use hindsight when considering judgments and estimates such as assessments of lessee options to extend or terminate a lease or purchase the underlying asset. The Company has no contingent rent agreements.

Present Value of Leases

	August 31, 2021	August 31, 2020
Right-of-use assets, net	$ 376,438	$ 658,788
Current portion of lease liability	272,336	386,345
Lease liability, less current portion	104,102	272,443
Total lease liability	$ 376,438	$ 658,788

As of August 31, 2021, the weighted-average remaining lease term was 1.50 years. The Company's lease agreements do not provide a readily determinable implicit rate nor is it available to the Company from its lessors. Instead, as of August 31, 2021, the Company estimates the weighted-average discount rate for its operating leases to be 2.31% to present value based on the incremental borrowing rate.

Future minimum payments for the next five fiscal years and thereafter as of August 31, 2021 under these long-term operating leases are as follows (in thousands):

Fiscal 2022	272,336
Fiscal 2023	84,353
Fiscal 2024	26,700
Fiscal 2025	-
Total future minimum lease payments	383,389
Less amount representing interest	(6,951)
Present value of obligations under operating leases	376,438
Less current portion	(272,336)
Long-term operating lease obligations	$ 104,102

Rent expense under these leases was approximately $386,345 and $131,840 for the years ended August 31, 2021 and 2020.

Annual Bonus Plan

On August 26, 2021, the Compensation Committee of the Board of Directors of the Company approved the material terms of an annual bonus plan for the Company's executive officers as well as certain officers and employees for the fiscal year ending August 31, 2022. For fiscal 2022, as in past years, the total amount available under the bonus plan for all plan participants, including executive officers, is dependent upon the Company's earnings before interest, taxes, and other income, as adjusted to take into account amounts to be paid under the bonus plan and certain other adjustments (Adjusted EBITOI). Each plan participant's percentage of the overall bonus pool is based upon the number of plan participants, the individual's annual base salary, and the individual's position and level of responsibility within the company. In the case of each of the Company's executive officer participants, 75% of the amount of their individual bonus payout will be determined based upon the Company's actual EBITOI for fiscal 2022 compared to a pre-established target EBITOI for fiscal 2022, and 25% of the payout will be determined based upon such executive officer's achievement of certain pre-established individual performance objectives. The payment of bonuses under the plan is discretionary, and bonuses may be paid to executive officer participants in both cash and shares of NTIC common stock, the exact amount and percentages of which were determined by the Company's Board of Directors, upon recommendation of the Compensation Committee, after the completion of the Company's consolidated financial statements for fiscal 2022.

On August 27, 2020, the Compensation Committee of the Board of Directors of the Company approved the material terms of an annual bonus plan for the Company's executive officers as well as certain officers and employees for the fiscal year ending August 31, 2021. $2,366,668 was recognized for bonuses for the fiscal year ended August 31, 2021, $266,667 of the bonus is comprised of stock options granted to management on September 1, 2020 that will be expensed over three years and $2,100,000 will be paid out in cash and profit sharing subsequent to year end. This is compared to $1,300,000 recognized for bonuses for the fiscal year ended August 31, 2020, $800,000 of the bonus comprised of stock options granted to management on September 1, 2019 and $500,000 was paid out in cash and profit sharing subsequent to year end.

Concentrations

Two joint ventures (consisting of the Company's joint ventures in the Thailand and Indonesia) accounted for 37.4% of the Company's trade joint venture receivables as of August 31, 2021, and five joint ventures (consisting of the Company's joint ventures in the United States, Indonesia, Philippines, Russia and India) accounted for 88.2% of the Company's trade joint venture receivables as of August 31, 2020.

Legal Matters

From time to time, the Company is subject to various claims and legal actions in the ordinary course of its business. The Company records a liability in its consolidated financial statements for costs related to claims, including future legal costs, settlements, and judgments, where the Company has assessed that a loss is probable, and an amount could be reasonably estimated. If the reasonable estimate of a probable loss is a range, the Company records the most probable estimate of the loss or the minimum amount when no amount within the range is a better estimate than any other amount. The Company discloses a contingent liability even if the liability is not probable or the amount is not estimable, or both, if there is a reasonable possibility that material loss may have been incurred. In the opinion of management, as of August 31, 2021, the amount of liability, if any, with respect to these matters, individually or in the aggregate, will not materially affect the Company's consolidated results of operations, financial position, or cash flows.

16. STATEMENTS OF CASH FLOWS

Supplemental disclosures of cash flow information consist of:

	Fiscal Year Ended August 31,	
	2021	**2020**
Cash paid during the year for income tax	$ 895,646	$1,099,635
Cash paid during the year for interest	16,086	16,034

17. FAIR VALUE MEASUREMENTS

The Company follows the authoritative guidance on fair value measurements and disclosures with respect to assets and liabilities that are measured at fair value on both a recurring and non-recurring basis. Under this guidance, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The authoritative guidance also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability, developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The categorization of financial assets and financial liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The hierarchy is broken down into three levels defined as follows:

Level 1 - Inputs are quoted prices in active markets for identical assets or liabilities.
Level 2 - Inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly.
Level 3 - Inputs are unobservable for the asset or liability.

See the section below titled Valuation Techniques for further discussion of how the Company determines fair value for investments.

Assets and Liabilities That Are Measured at Fair Value on a Recurring Basis

Assets and liabilities that are measured at fair value on a recurring basis primarily relate to marketable equity securities. These items are marked-to-market at each reporting period, and the Company estimates that market value approximates costs.

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis:

	Fair value as of August 31, 2021	Fair Value Measurements Using Inputs Considered as Level 1	Level 2	Level 3
Available for sale securities	$ 4,634	$ 4,634	$ —	$ —

	Fair value as of August 31, 2020	Fair Value Measurements Using Inputs Considered as Level 1	Level 2	Level 3
Available for sale securities	$ 5,544,722	$ 5,544,722	$ —	$ —

Valuation Techniques

Financial assets that are classified as Level 1 securities include cash equivalents and available for sale securities. These are valued using quoted market prices in an active market.

The Company reviews the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. The Company's policy is to recognize transfers into and out of levels within the fair value hierarchy at the end of the fiscal quarter in which the actual event or change in circumstances that caused the transfer occurs. There were no transfers between Level 1, Level 2, or Level 3 during the fiscal years ended August 31, 2021 or August 31, 2020. When a determination is made to classify an asset or liability within Level 3, the determination is based upon the significance of the unobservable inputs to the overall fair value measurement.

18. SUBSEQUENT EVENTS

On October 20, 2021, NTIC's Board of Directors declared a cash dividend of $0.07 per share of NTIC's common stock, payable on November 17, 2021 to stockholders of record on November 3, 2021. Although NTIC's Board of Directors intends to declare regular quarterly cash dividends going forward, the payment of any future dividends will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions, and other factors, including without limitation the effect of COVID-19 on its business, operating results, and financial condition.

On September 21, 2021, the Company announced that it acquired the remaining 50% ownership interest in its Indian joint venture, Harita-NTI Limited, for USD $6.25 million in cash, effective as of September 1, 2021. This purchase was funded with cash available from existing operations.

Also on September 21, 2021, the Company and PNC Bank entered into an Amended and Restated Loan Agreement and Amended and Restated Security Agreement relating to the Company's revolving line of credit with PNC Bank and the Company issued an amended and restated promissory note thereunder, in each case effective as of August 31, 2021, which together increased the line of credit from $3.0 million to $5.0 million, extended the maturity date to February 22, 2022 and revised the rate at which amounts outstanding under the line of credit bear interest to equal a per annum rate equal to the daily LIBOR plus 250 basis points (2.50%). The other material terms of the line of credit, Amended and Restated Loan Agreement and Amended and Restated Security Agreement with PNC Bank and other related documents were not affected by these amendments.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

NTIC maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) that are designed to provide reasonable assurance that information required to be disclosed by NTIC in the reports it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to NTIC's management, including NTIC's principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. NTIC's management evaluated, with the participation of its Chief Executive Officer and its Chief Financial Officer, the effectiveness of the design and operation of NTIC's disclosure controls and procedures as of the end of the period covered in this report. Based on that evaluation, NTIC's Chief Executive Officer and Chief Financial Officer concluded that NTIC's disclosure controls and procedures were effective as of the end of such period to provide reasonable assurance that information required to be disclosed in the reports that NTIC files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to NTIC's management, including NTIC's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

NTIC's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for Northern Technologies International Corporation and its subsidiaries. This system is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

The Company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements, and even when determined to be effective, can only provide reasonable assurance with respect to financial statement preparation and presentation. In addition, projection of any evaluation of the effectiveness of internal control over financial reporting to future periods is subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management, with the participation of NTIC's President and Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's internal control over financial reporting as of August 31, 2021. In making this evaluation, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control – Integrated Framework (2013). Based on this assessment, management concluded that the Company's internal control over financial reporting was effective as of August 31, 2021.

This report does not include an attestation report of NTIC's independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by NTIC's independent registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit NTIC to provide only management's report in this report.

Changes in Internal Control over Financial Reporting

There was no change in NTIC's internal control over financial reporting that occurred during the quarter ended August 31, 2021 that has materially affected or is reasonably likely to materially affect NTIC's internal control over financial reporting.

Item 9B. OTHER INFORMATION

Not applicable.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Directors

The information in the “Proposal One – Election of Directors” section of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

Executive Officers

Information concerning NTIC’s executive officers and officers is included in this annual report on Form 10-K under Part I under the heading “Executive Officers of the Registrant.”

Code of Ethics

NTIC has adopted a code of ethics that applies to its principal executive officer, principal financial officer, principal accounting officer, or controller or persons performing similar functions, as well as other employees and NTIC’s directors and meets the requirements of the SEC and the Nasdaq Global Market. A copy of NTIC’s Code of Ethics is filed as an exhibit to this report. NTIC intends to satisfy the disclosure requirements of Item 5.05 of Form 8-K regarding amendments to or waivers from any provision of its code of ethics by posting such information on its corporate website at www.ntic.com.

Changes to Nomination Procedures

During the fourth quarter of fiscal 2021, NTIC made no material changes to the procedures by which stockholders may recommend nominees to NTIC’s Board of Directors, as described in NTIC’s most recent proxy statement.

Audit Committee Matters

The information in the “Corporate Governance—Audit Committee” section of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

Item 11. EXECUTIVE COMPENSATION

The information in the “Director Compensation” and “Executive Compensation” sections of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Stock Ownership

The information in the “Stock Ownership—Beneficial Ownership of Significant Stockholders and Management” section of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

Securities Authorized for Issuance under Equity Compensation Plans

The following table summarizes outstanding options and other awards under NTIC's equity compensation plans as of August 31, 2021. NTIC's equity compensation plans as of August 31, 2021 were the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan, the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan, and the Northern Technologies International Corporation Employee Stock Purchase Plan. Except for automatic annual grants of $50,000 in options to purchase shares of NTIC common stock to NTIC's directors in consideration for their services as directors of NTIC and an automatic annual grant of $10,000 in options to purchase shares of NTIC common stock to NTIC's Chairman of the Board in consideration for his services as Chairman, in each case on the first day of each fiscal year, and automatic initial pro rata grants of $50,000 in options to purchase shares of NTIC common stock to NTIC's new directors in consideration for their services as directors of NTIC on the first date of their appointment as directors, options and other awards granted in the future under the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan are within the discretion of the Board of Directors and the Compensation Committee of the Board of Directors and, therefore, cannot be ascertained at this time. No future grants of options or other stock awards will be made under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	1,426,651(1)(2)	$9.30	954,178(3)
Equity compensation plans not approved by security holders	—	—	—
Total	1,426,651(1)(2)	$9.30	954,178(3)

(1) Amount includes 706,007 shares of NTIC common stock issuable upon the exercise of stock options outstanding as of August 31, 2021 under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan and 720,644 shares of NTIC common stock issuable upon the exercise of stock options outstanding as of August 31, 2021 under the Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan.

(2) Excludes employee stock purchase rights accruing under the Northern Technologies International Corporation Employee Stock Purchase Plan. Under such plan, each eligible employee may purchase up to 2,000 shares of NTIC common stock at semi-annual intervals on February 28th or 29th (as the case may be) and August 31st each year at a purchase price per share equal to 90% of the lower of (i) the closing sales price per share of NTIC common stock on the first day of the offering period or (ii) the closing sales price per share of NTIC common stock on the last day of the offering period.

(3) Amount includes 879,356 shares available as of August 31, 2021 for future issuance under Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan and 74,822 shares available at August 31, 2021 for future issuance under the Northern Technologies International Corporation Employee Stock Purchase Plan.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information in the "Related Person Relationships and Transactions" and "Corporate Governance—Director Independence" sections of NTIC's definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC's next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information in the "Proposal Three—Ratification of Selection of Independent Registered Public Accounting Firm—Audit, Audit-Related, Tax and Other Fees" and "Proposal Three—Ratification of Selection of Independent Registered Public Accounting Firm—Audit Committee Pre-Approval Policies and Procedures" sections of NTIC's definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC's next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

PART IV

Item 15. EXHIBIT AND FINANCIAL STATEMENT SCHEDULES

Financial Statements

NTIC's consolidated financial statements are included in Item 8 of Part III of this report.

Financial Statement Schedules

All financial statement schedules are omitted because they are inapplicable since NTIC is a smaller reporting company.

Exhibits

The exhibits being filed or furnished with this report are listed below. Each management contract or compensatory plan or arrangement required to be filed as an exhibit to this report is asterisked below.

A copy of any exhibits listed or referred to herein will be furnished at a reasonable cost to any person who is a stockholder upon receipt from any such person of a written request for any such exhibit. Such request should be sent to: Mr. Matthew Wolsfeld, Corporate Secretary, Northern Technologies International Corporation, 4201 Woodland Road, P.O. Box 69, Circle Pines, Minnesota 55014 Attn: Stockholder Information.

Item No.	Item	Method of Filing
3.1	Restated Certificate of Incorporation of Northern Technologies International Corporation	Incorporated by reference to Exhibit 3.1 to NTIC's Quarterly Report on Form 10-Q for the fiscal quarter ended February 28, 2009 (File No. 001-11038)
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of Northern Technologies International Corporation dated January 16, 2018	Incorporated by reference to Exhibit 3.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 16, 2018 (File No. 001-11038)
3.3	Certificate of Validation of the Certificate of Amendment to Restated Certificate of Incorporation of Northern Technologies International Corporation dated January 18, 2019	Incorporated by reference to Exhibit 3.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 25, 2019 (File No. 001-11038)
3.4	Amended and Restated Bylaws of Northern Technologies International Corporation	Incorporated by reference to Exhibit 3.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on November 24, 2008 (File No. 001-11038)
4.1	Specimen Stock Certificate Representing Common Stock of Northern Technologies International Corporation	Incorporated by reference to Exhibit 4.1 to NTIC's Registration Statement on Form 10 (File No. 001-19331) (Filed on paper - hyperlink is not required pursuant to Rule 105 of Regulation S-T)

Item No.	Item	Method of Filing
4.2	Description of Common Stock of Northern Technologies International Corporation	Incorporated by reference to Exhibit 4.2 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2020 (File No. 001-11038)
10.1	Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan*	Incorporated by reference to Exhibit 10.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 15, 2021 (File No. 001-11038)
10.2	Form of Incentive Stock Option Agreement for Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan*	Incorporated by reference to Exhibit 10.2 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 25, 2019 (File No. 001-11038)
10.3	Form of Non-Statutory Stock Option Agreement for Northern Technologies International Corporation Amended and Restated 2019 Stock Incentive Plan*	Incorporated by reference to Exhibit 10.3 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 25, 2019 (File No. 001-11038)
10.4	Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan*	Incorporated by reference to Exhibit 10.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011 (File No. 001-11038)
10.5	Form of Incentive Stock Option Agreement for Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan*	Incorporated by reference to Exhibit 10.2 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011 (File No. 001-11038)
10.6	Form of Non-Statutory Stock Option Agreement for Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan*	Incorporated by reference to Exhibit 10.3 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011 (File No. 001-11038)
10.7	Form of Restricted Stock Agreement for Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan*	Incorporated by reference to Exhibit 10.4 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011 (File No. 001-11038)
10.8	Northern Technologies International Corporation Employee Stock Purchase Plan*	Incorporated by reference to Exhibit 10.11 to NTIC's Annual Report on Form 10-KSB for the fiscal year ended August 31, 2006 (File No. 001-11038)

Item No.	Item	Method of Filing
10.9	Material Terms of Northern Technologies International Corporation Annual Bonus Plan*	Incorporated by reference to Exhibit 10.6 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2015 (File No. 001-11038)
10.10	Form of Indemnification Agreement between Northern Technologies International Corporation and its Directors and Officers*	Incorporated by reference to Exhibit 10.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on October 23, 2019 (File No. 001-11038)
10.11	Agreement dated as of May 25, 2009 between Northern Technologies International Corporation and Sunggyu Lee, Ph.D.*	Incorporated by reference to Exhibit 10.2 to NTIC's Quarterly Report on Form 10-Q for the fiscal quarter ended May 31, 2009 (File No. 001-11038)
10.12	Description of Non-Employee Director Compensation Arrangements*	Incorporated by reference to Exhibit 10.9 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2018 (File No. 001-11038)
10.13	Executive Employment Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and G. Patrick Lynch*	Incorporated by reference to Exhibit 10.13 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011 (File No. 001-11038)
10.14	Confidential Information, Inventions Assignment, Noncompetition and Non-Solicitation Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and G. Patrick Lynch*	Incorporated by reference to Exhibit 10.14 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011 (File No. 001-11038)
10.15	Executive Employment Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and Matthew C. Wolsfeld*	Incorporated by reference to Exhibit 10.15 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011 (File No. 001-11038)
10.16	Confidential Information, Inventions Assignment, Noncompetition and Non-Solicitation Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and Matthew C. Wolsfeld*	Incorporated by reference to Exhibit 10.16 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011 (File No. 001-11038)
10.17	Amended and Restated Loan Agreement dated as of August 31, 2021 by and between Northern Technologies International Corporation and PNC Bank, National Association	Incorporated by reference to Exhibit 10.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on September 22, 2021 (File No. 001-11038)
10.18	Amended and Restated Revolving Line of Credit Note dated as of August 31, 2021 issued by Northern Technologies International Corporation to PNC Bank, National Association	Incorporated by reference to Exhibit 10.2 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on September 22, 2021 (File No. 001-11038)

Item No.	Item	Method of Filing
10.19	Consulting Agreement dated January 11, 2017 by and among Northern Technologies International Corporation, BioPlastic Polymers LLC, and Ramani Narayan, Ph.D.	Incorporated by reference to Exhibit 10.2 to NTIC's Quarterly Report on Form 10-Q for the fiscal quarter ended November 30, 2016 (File No. 001-11038)
10.20	Real Estate Purchase and Sales Contract dated July 7, 2021 between NTIC (Shanghai) Co., Ltd. And Shanghai FASTO Investment Group Limited Company (Official Chinese Version)	Incorporated by reference to Exhibit 10.1 to NTIC's Quarterly Report on Form 8-K as filed with the Securities and Exchange Commission on July 8, 2021 (File No. 001-11038)
10.21	Unofficial English Summary of Real Estate Purchase and Sales Contract dated July 7, 2021 between NTIC (Shanghai) Co., Ltd. and Shanghai FASTO Investment Group Limited Company	Incorporated by reference to Exhibit 10.2 to NTIC's Quarterly Report on Form 8-K as filed with the Securities and Exchange Commission on July 8, 2021 (File No. 001-11038)
14.1	Code of Ethics	Incorporated by reference to Exhibit 14.1 to NTIC's Annual Report on Form 10-KSB for the fiscal year ended August 31, 2004 (File No. 001-11038)
21.1	Subsidiaries of the Registrant	Filed herewith
23.1	Consent of Baker Tilly US, LLP	Filed herewith
31.1	Certification of President and Chief Executive Officer Pursuant to SEC Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
31.2	Certification of Chief Financial Officer Pursuant to SEC Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
32.1	Certification of President and Chief Executive Officer Pursuant to Rule 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith
32.2	Certification of Chief Financial Officer Pursuant to Rule 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith
101	The following materials from Northern Technologies International Corporation's Annual Report on Form 10-K for the fiscal year ended August 31, 2021, formatted in Inline XBRL (Extensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Consolidated Statements of Equity, (v) the Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements	Filed herewith

Item No.	Item	Method of Filing
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	Contained in Exhibit 101

* A management contract or compensatory plan or arrangement.

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION

November 19, 2021

By: /s/ G. Patrick Lynch
G. Patrick Lynch
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Name	**Title**	**Date**
/s/ G. Patrick Lynch G. Patrick Lynch	President and Chief Executive Officer and Director (principal executive officer)	November 19, 2021
/s/ Matthew C. Wolsfeld, CPA Matthew C. Wolsfeld, CPA	Chief Financial Officer and Corporate Secretary (principal financial and accounting officer)	November 19, 2021
/s/ Richard J. Nigon Richard J. Nigon	Chairman of the Board	November 19, 2021
/s/ Nancy E. Calderon Nancy E. Calderon	Director	November 19, 2021
/s/ Sarah E. Kemp Sarah E. Kemp	Director	November 19, 2021
/s/ Sunggyu Lee, Ph.D. Sunggyu Lee, Ph.D.	Director	November 19, 2021
/s/ Ramani Narayan, Ph. D. Ramani Narayan, Ph.D.	Director	November 19, 2021
/s/ Konstantin von Falkenhausen Konstantin von Falkenhausen	Director	November 19, 2021

Board of Directors
Mr. Richard J. Nigon
Chairman of the Board, NTIC
Senior Vice President, Cedar Point Capital, Inc.

Mr. G. Patrick Lynch
President & CEO, NTIC

Dr. Ramani Narayan
Distinguished Professor in the Department of
Engineering & Materials Science, Michigan State University

Dr. Sunggyu Lee
Chief Technologist, Chemtech Innovators LLC

Mr. Konstantin von Falkenhausen
Partner, B Capital Partners AG

Ms. Sarah E. Kemp
Associate Vice President, Merck

Ms. Nancy E. Calderon
Former Global Lead Partner, KPMG LLP

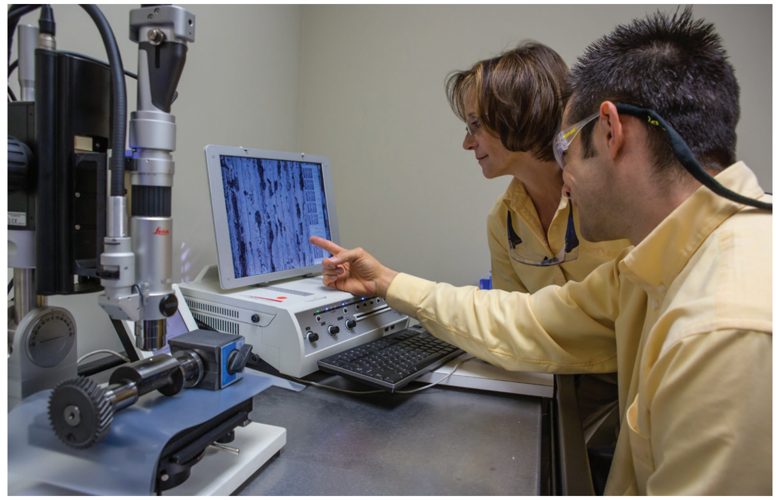
NTIC Executive Officers
Mr. G. Patrick Lynch
President & CEO

Mr. Matthew C. Wolsfeld
Chief Financial Officer, Treasurer and Corporate Secretary

Independent Registered Public Accounting Firm
Baker Tilly US, LLP
Minneapolis, MN

Transfer Agent and Registrar
For a response to questions regarding misplaced stock certificates, changes of address or the consolidation of accounts, please contact NTIC's transfer agent:

Broadridge Corporate Issuer Solutions, Inc.
51 Mercedes Way
Edgewood, NY 11717
(855) 588-5049
shareholder@broadridge.com



Investor Relations
Northern Technologies International Corporation welcomes inquiries from its stockholders and other interested investors. For further information on NTIC'S activities or additional copies of this report, please contact:

Investor Relations
Northern Technologies International Corporation
4201 Woodland Road, P.O. Box 69
Circle Pines, MN 55014
(763) 225-6600
investors@ntic.com
www.ntic.com

Stock Listing
NTIC's common stock is traded on the
Nasdaq Global Market under the symbol NTIC.

Annual Meeting
The annual meeting of stockholders will be held at 12:00 pm (local time) on Friday, January 21, 2022 at NTIC's corporate headquarters:

Northern Technologies International Corporation
4201 Woodland Road
Circle Pines, MN 55014
(763) 225-6600

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