

**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 December 31, 2019

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 0-21810

GENTHERM INCORPORATED

(Exact name of registrant as specified in its charter)

Michigan
(State or other jurisdiction of
incorporation or organization)
21680 Haggerty Road, Northville, MI
(Address of principal executive offices)

95-4318554
(I.R.S. Employer
Identification No.)

48167
(Zip Code)

Registrant's telephone number, including area code: (248) 504-0500

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

Title of each class
Common Stock, no par value

Trading Symbol
THRM

Name of each exchange on which registered
Nasdaq

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark whether 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, smaller reporting company, or an emerging growth company. See the 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 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 held by non-affiliates of the registrant, computed by reference to the closing price of such Common Stock on The Nasdaq Global Select Market as of the last business day of the registrant's most recently completed second fiscal quarter, June 28, 2019, was \$1,378,276,957. For purposes of this computation, the registrant has excluded the market value of all shares of its Common Stock reported as being beneficially owned by executive officers and directors; such exclusion shall not, however, be deemed to constitute an admission that any such person is an "affiliate" of the registrant.

As of February 14, 2020, there were 32,803,041 issued and outstanding shares of Common Stock of the registrant.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the proxy statement for the 2020 annual meeting of shareholders are incorporated by reference into Part III of this Report to the extent described herein.

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ITEM 1. BUSINESS

Unless otherwise indicated, references to “Gentherm”, “the Company”, “we”, “our” and “us” in this Annual Report on Form 10-K (“this Report”) refer to Gentherm Incorporated and its consolidated subsidiaries.

Except to the extent expressly noted herein, the content of our website or the websites of other third parties noted herein are not incorporated by reference in this Report.

Forward-Looking Statements

This Report contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements represent our goals, beliefs, plans and expectations about our prospects for the future and other future events, such as our ability to execute our strategic plan and Manufacturing Footprint Rationalization restructuring plan (defined below), our ability to finance sufficient working capital, the amount of availability under the Amended Credit Agreement (defined below), our ability to maintain or increase sales and profitability of our operations, and the sufficiency of our cash balances and cash generated from operating, investing and financing activities for our future liquidity and capital resource needs. Reference is made in particular to forward-looking statements included in “Item 1. Business,” “Item 1A. Risk Factors” and “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Such statements may be identified by the use of forward-looking terminology such as “may”, “will”, “expect”, “believe”, “estimate”, “anticipate”, “intend”, “continue”, or similar terms, variations of such terms or the negative of such terms. The forward-looking statements included in this Report are made as of the date hereof or as of the date specified and are based on management’s reasonable expectations and beliefs. Such statements are subject to a number of assumptions, risks, uncertainties and other factors, which are set forth in “Item 1A. Risk Factors” and elsewhere in this Report, and subsequent reports filed with or furnished to the Securities and Exchange Commission, and which could cause actual results to differ materially from that described in the forward looking statements. Except as required by law, we expressly disclaim any obligation or undertaking to update any forward-looking statements to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

General

Gentherm Incorporated is a global developer and marketer of innovative thermal management technologies for a broad range of heating and cooling and temperature control applications. Our products provide solutions for automotive passenger climate comfort and convenience, battery thermal management and cell connecting systems, as well as patient temperature management within the health care industry. Our automotive products can be found on the vehicles of nearly all major automotive manufacturers operating in North America and Europe, and several major automotive manufacturers in Asia. We operate in locations aligned with our major customers’ product strategies to provide locally enhanced design, integration and production capabilities. The Company is also developing a number of new technologies and products that will help enable improvements to existing products and to create new product applications for existing and new markets.

On February 1, 2019, the Company completed the divestiture of its environmental test equipment business, Cincinnati Sub Zero industrial chamber business (“CSZ-IC”), and on October 1, 2019, the Company completed the divestiture of its remote power generation systems business, Gentherm Global Power Technologies (“GPT”).

The Company has two reportable segments for financial reporting purposes: Automotive and Industrial.

Automotive

The Automotive reporting segment is comprised of the results from our global automotive businesses. Operating results from our climate comfort systems, specialized automotive cable systems, battery thermal management, and automotive electronic and software systems are all reported in the Automotive segment because of their complementary focus on automotive content, passenger thermal comfort and convenience.

Climate and comfort system solutions include seat heaters, blowers and thermoelectric devices for variable temperature Climate Control Seats (“CCS”) designed to provide individualized thermal comfort to automobile passengers, and integrated electronic

components, such as electronic control units that utilize our proprietary electronics technology and software. Other climate comfort system solutions include steering wheel heaters, neck conditioners and climate control system products for door panels, armrests, cupholders and storage bins.

Battery thermal management system solutions include battery cooling modules for 12V and 48V automotive batteries.

Automotive electronic and software systems solutions include electronic control units for climate and comfort system solutions and new proprietary electronic control units for memory seat modules.

Industrial

The Industrial reporting segment represents the combined results from our patient temperature management systems business (“Medical”), GPT (through October 1, 2019), CSZ-IC (through February 1, 2019) and Gentherm’s advanced research and development division. The operating results from these businesses and division are presented together as one reporting segment because of their historical joint concentration on identifying new markets and product applications based on thermal management technologies.

Corporate Information

We are incorporated under the laws of the State of Michigan. We were originally incorporated in California in 1991 and we reincorporated in Michigan in 2005. Our internet website is www.gentherm.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), are made available free of charge through our website, www.gentherm.com, as soon as reasonably practicable after we electronically file them with or furnish them to the Securities and Exchange Commission. These reports are also available on the Securities and Exchange Commission’s website, www.sec.gov.

Business Strategy

Across the globe, we produce and deliver advanced thermal solutions for automotive and patient thermal management markets that positively impact lives. To achieve our goals and capitalize on opportunities within the automotive and patient thermal management markets, we launched in mid-2018 and continue to implement four primary strategies:

Focus Growth

The focused growth strategy includes four key goals:

- Accelerate growth in our core automotive climate and comfort businesses by leveraging human thermophysiology to offer personalized passenger comfort and improve efficiency;
- Introduce an innovative microclimate solution, ClimateSense™, which offers personalized thermal comfort in one intelligent and integrated system;
- Drive battery thermal management with increased focus on active battery heating and cooling, passive battery cooling, battery heaters, and cell connecting board solutions; and
- Expand patient thermal management solutions that leverage synergies from our automotive climate and comfort businesses.

These areas of the focused growth strategy are underpinned and enabled by our electronics and software systems business.

Extend Technology Leadership

We continue to expand our technology leadership with focused investments in key core technologies and competencies, including thermophysiology, software and electronics, simulation, thermal engines and integration.

Expand Gross Margin and Return on Invested Capital

We are strengthening our operational discipline and execution to expand gross margin and return on invested capital. This strategy centers around building a culture of performance that includes a focus on high-return growth opportunities, and the Fit-for-Growth cost rationalization program. It also included the divestiture of non-core investments, which was completed in 2019. During 2018, we initiated this strategy through the sale of our battery management systems division located in Irvine, California and the site consolidation of its advanced research and development operations, which resulting in vacating two lease facilities in Azusa, California. Further, we exited several product categories including furniture, aviation, battery management electronics, industrial battery packs, automotive thermoelectric generators and other non-core electronics. Additionally, we undertook restructuring actions to reduce global overhead costs to improve selling, general and administrative expense.

Optimize Capital Allocation

We are optimizing our capital allocation to drive shareholder returns, including through stock repurchases, while also allowing us to reinvest in our business to drive continued growth. We make investments to grow our businesses through capital expenditure projects, focused research and development investments, and evaluate acquisition opportunities that will enhance other business strategies.

Recent Acquisitions and Dispositions

As part of our plan to make strategic acquisitions and dispositions, we have completed the following significant transactions since 2018:

On April 1, 2019, Gentherm acquired Stihler Electronic GmbH (“Stihler”), a leading developer and manufacturer of patient and blood temperature management systems, for a purchase price of \$15.5 million, net of cash acquired.

On February 1, 2019, we completed the sale of CSZ-IC and the CSZ headquarters facility to Weiss Technik North America, Inc. for total cash proceeds of \$47.5 million. On October 1, 2019, we completed the divestiture of GPT. Both businesses were classified as held-for-sale as of December 31, 2018.

See Note 4 of the consolidated financial statements for information regarding the Company’s recent acquisitions and divestitures.

Research and Development

Our research and development activities are an essential part of our efforts to develop new or improved innovative products. Through both internal and external research and development programs, we are working to develop a comprehensive knowledge of thermal management systems that can demonstrate functionality and performance. These activities are critical to optimizing energy and production efficiencies, improving effectiveness in our products, and minimizing the cost to integrate our products with those of our customers.

We perform advanced research and development on thermal management systems, including those that utilize new proprietary comfort software algorithms, to enhance the efficiency and functionality of our automotive heating and cooling products. We believe there are substantial opportunities to integrate innovative thermal management systems into current and future product applications.

Research and development is conducted around the globe, predominately at our world headquarters in Northville, Michigan, our Technology Center in Farmington Hills, Michigan and our European research facilities in Odelzhausen, Germany.

Additional product development is performed at all of our manufacturing facilities to support customers. We believe the localized development model employed at our global design and manufacturing facilities improves our ability to effectively serve our customers and increases our innovative capacity.

Core Technologies

Gentherm's expertise in thermal management is focused on two general areas: managing the thermal conditions of people and objects.

Thermoelectric Technologies

Many of our thermal products manage the thermal conditions of people and objects using our internally developed advanced thermoelectric device technology ("TED"). A TED is a solid-state circuit that has the capability to produce both hot and cold thermal conditions by use of the Peltier effect. The advantages of advanced TEDs over conventional compressed gas systems are that they are environmentally friendly and less complex as they have no moving parts and are compact and light weight. Over the last 18 years, our work on this technology has yielded improvements in areas of functionality, efficiency, durability and performance.

Resistive Heaters

Resistive heater technologies are comprised of wire, carbon fiber or positive thermal coefficient ("PTC") heating elements which quickly and effectively deliver heat to people and objects. Wire heating elements are designed from stainless steel, copper, our proprietary carbon fiber woven lattice technology called Carbotex® or printed circuit PTC heaters based on the specifications for a particular product application.

ClimateSense™

ClimateSense is an integrated comfort system designed to create a personalized microclimate for passengers using localized convective, conductive and radiative heating and cooling products. Using automatic regulation technology, ClimateSense offers the ability to personalize and improve overall occupant thermal comfort, improve time to comfort with (all-electric) pre-conditioning, provide comfort with less energy consumption thereby lowering carbon dioxide emissions by conventional internal combustion and hybrid powertrains, and extending range for electrified powertrains through a reduction in central HVAC system usage.

Electronics

Gentherm manufactures and supplies electronics to our core climate comfort solution products. We also supply value-added electronic products to third parties for adjacent areas within the automotive interior. Gentherm also manufactures and supplies electronic control units for memory seat modules that include electric motor position sensing technology.

Automotive Cable Systems

Gentherm produces automotive cable systems used to connect automotive components to sources of power. The automotive cable systems are an important element in the production of many of our products and form a significant component in how we generate value to our customers by being an efficient, low-cost and high-quality manufacturer. We offer cable systems as integrated parts of our products and also as stand-alone components for other automotive applications, such as oxygen sensors. Our cable systems business includes both ready-made individual cables and ready-to-install cable networks. Sales of products that utilize our automotive cable systems technology represented 9% of our total product revenues for years ending December 31, 2019, 2018 and 2017.

Air Moving Devices

Our highly durable and quiet air moving devices, including our proprietary blower and fan designs, are essential to all of our products that require air movement.

Products

Climate Comfort Solutions – Seat Comfort

Climate Control Seat® (“CCS”)

Our CCS products utilize exclusive patented technology to regulate temperature and enhance the comfort of vehicle passengers. The most advanced CCS models use one or more TEDs to generate heating or cooling depending upon the direction of the current applied to the device.

A TED is the heart of a compact heat pump used in our active CCS products. Air is forced through the heat pump and thermally conditioned in response to electronic switch input from the seat occupant. The conditioned air circulates by one of our specially designed air moving devices through a proprietary air distribution system installed in the seat cushion and seat back, so that the seat surface can be heated or cooled. Each seat has individual electronic controls to adjust the level of heating or cooling. Active CCS products improve comfort compared with conventional air conditioners by focusing cooling directly on the passenger through the seat rather than waiting until ambient air cools the seat surface beneath the passenger. A heated and ventilated variant of the CCS utilizes ambient cabin air to provide cooling comfort instead of a TED to actively cool the seat. In the heating mode, the vent-only system is supplemented with resistive heating elements.

Heated and ventilated CCS products provide a lower level of cooling capability than our active CCS solution, but at a lower price. By offering different models of the CCS product, our customers have the opportunity to purchase a wider range of climate control products at different price points. Sales of CCS products contributed 37%, 36% and 39% to our total product revenues for the years ending December 31, 2019, 2018 and 2017, respectively.

Heated Seat

Heated seats, based on our resistive heater core technology, are seamlessly integrated into automotive seat designs, and are constructed using materials that offer the best capacity, installation characteristics and durability. Our capabilities allow customers to choose among a variety of resistive heater materials based on their individual vehicle specifications. Sales of heated seat products contributed 29%, 29% and 31% to our total product revenues for the years ending December 31, 2019, 2018 and 2017, respectively.

Neck Climate Control Systems

Neck climate control systems ventilate warm or temperature-controlled air directly onto the passenger’s neck area. The system combines electronics, air moving device technologies and a heating element into a compact, integrated headrest design that can be adjusted to suit the body size of the passenger.

Climate Comfort Solutions – Surface Climate Control Systems

Heated Steering Wheel

Heated steering wheels deliver heating comfort to automobile drivers through resistive elements. This product can be applied to both leather and wood steering wheels. A solution for drivers in cold and mild weather climates, the heated steering wheel is designed for the global automotive market.

Heated Surfaces

Gentherm’s thermally conductive or radiative surfaces, such as door panel armrest and center console armrest products, are powered by our core technologies. The system is thermally managed by a heating control system which can be discretely located in the door panel or seat of the vehicle. Heated door panels and armrests complement our climate-controlled seat and steering wheel products and provide a superior level of thermal comfort to the driving experience.

Battery Sub-Systems

Thermoelectric Battery Thermal Management (BTM)

Thermal management is critically important for the long-term operation of advanced automotive batteries. The expansion of electrified vehicle applications, such as 48-volt electrical networks, start-stop systems, regenerative braking systems and other micro-hybrid battery implementations, have drastically increased the demand for BTM systems solutions which enable wider operating temperature ranges, enhanced driving range and prolonged life of the battery. Gentherm's BTM system can provide precision battery cooling on pack or cell-level using patented TED technology. The BTM system maintains the temperature of the lithium-ion battery or other advanced chemistry battery within an acceptable temperature range without the use of chilled liquids or refrigerant loops, making it a light weight, highly scalable, compact solution ideal for automotive applications. Gentherm's proprietary BTM system is compact and energy efficient, resulting in a minimal energy budget, which is important for an electrified vehicle. We are currently working with original equipment manufacturers ("OEMs") to secure more production contracts.

Cell Connecting Systems

Cell connecting systems provide secure connections between advanced automotive batteries to transmit a continuous flow of information about battery temperature and cell voltage during the charging and discharging process to monitor battery system performance. Gentherm has developed a range of cell connecting system products, including flexible foil cell connecting boards that offer improved packaging, weight and functionality.

Climate Comfort Solutions – Thermal Convenience

TrueTherm™ Cup Holder

The TrueTherm cup holder applies Gentherm's patented TED technologies to keep beverages of automobile drivers and passengers either warm or cool. We have developed a range of cup holder models with varying degrees of functionality, designed to be packaged in multiple configurations to accommodate different console environments. Our dual independent design provides separate temperature settings in each holder allowing the driver and passenger to individually maintain a heated or cooled beverage.

TrueTherm™ Storage Unit

Gentherm's TrueTherm storage units provide for food or beverage cooling for the global automotive market. Using patented TED or refrigeration technologies, the TrueTherm cool storage unit provides temperature control independently from a vehicle's heating and air conditioning system. It can be custom designed to accommodate tight interior spaces, such as the front floor console of a sport utility vehicle (SUV) and provide additional cooling capacity to those who have long work commutes or transport multiple passengers.

Patient Temperature Management Systems

Gentherm provides a full line of patient temperature management systems across multiple product categories addressing the needs of hyper-hypothermia therapy in intensive care, normothermia in surgical procedures, and additional warming/cooling therapies utilized in acute care, ambulatory, clinics and home health. Our core brands include Blanketrol® hyper-hypothermia system, WarmAir®/FilteredFlo® convective warming system, Electri-Cool®/Micro-Temp® localized cooling/warming systems, Hemotherm® cardiovascular cooling/warming system and our recent launch of our next generation cardiovascular cooling/warming system utilized to deliver precise blood temperature control during cardiopulmonary by-pass and other related cardiovascular procedures. We aspire to have innovative patient temperature management product offerings coupled with clinical education enabling our customers to have enhanced patient outcomes and improved efficiencies of care.

In April 2019, Gentherm acquired Stihler to further strengthen our patient temperature management offering in the operating room focused on normothermia. The Stihler core brands include ASTOPAD™ patient warming system, ASTOTHERM™/ASTOFLO™ IV fluid and blood warming systems and ASTODIA™ diaphanoscope for transillumination. The ASTOPAD™ patient warming system utilizes resistive warming technology which is also used in our automotive products. Gentherm is now focused on globalizing the Stihler portfolio and integrating across key sales channels.

Marketing, Customers and Sales

Our Automotive segment customers include light vehicle OEMs, commercial vehicle OEMs, and first tier (“Tier 1”) suppliers to the automotive OEMs, including automotive seat manufacturers. We also directly supply CCS products to aftermarket seat distributors and installers.

The Company’s automotive marketing is directed primarily at automotive manufacturers and their Tier 1 suppliers and focuses on the enhanced value consumers attribute to vehicles with climate comfort products. In many cases, the manufacturers direct us to work with their suppliers to integrate our products into the vehicle’s seat or interior design. These customers will sell our product, as a component of an entire seat or seating system, to automotive OEMs. Once the integration work is complete, prototypes are sent to the manufacturer for evaluation and testing. If a manufacturer accepts our product, a program can then be launched for a particular model on a production basis, but it normally takes two to three years from the time a manufacturer decides to include any of our products in a vehicle model to actual production for that vehicle. During this process, we derive funding from prototype sales but obtain no significant revenue until mass production begins. Inherent to the automotive supplier market are costs and commitments that are incurred well in advance of the receipt of orders and resulting revenues from customers.

The volume of products we sell is significantly affected by global automotive production levels and the general business conditions in the automotive industry.

For 2019, our revenues from sales to our three largest customers, Lear, Adient and Bosch Automotive were \$156.9 million, \$145.8 million, and \$67.2 million, respectively, representing 16%, 15%, and 7% of our product revenues, respectively. Revenues from Adient and Lear represent sales of our climate comfort products. Revenues from Bosch Automotive represent product sales based on our automobile cable system technology and is used primarily in the production of automotive oxygen sensors. The loss of any one of these customers would likely have a material adverse impact on our business, results of operations and cash flows. However, as noted above, in many cases our approach is to market climate comfort solutions, battery thermal management and cable technology products to the OEMs who then direct their suppliers, such as Adient and Lear, to work with us. It is, therefore, relevant to understand how our revenues are divided among the OEMs, as shown below.

Our total product revenues for each of the past three years were divided among automotive OEMs as follows:

	2019	2018	2017
General Motors	14%	14%	15%
Ford Motor Company	11%	10%	11%
Hyundai	9%	7%	8%
Fiat Chrysler Automobiles	8%	8%	9%
Volkswagen	8%	9%	10%
Honda	7%	6%	6%
Daimler	6%	5%	4%
BMW	6%	4%	5%
Mazda	4%	3%	2%
Toyota Motor Corporation	4%	3%	4%
Renault/Nissan	3%	4%	6%
Jaguar/Land Rover	3%	3%	3%
Other (including Industrial)	17%	24%	17%
Total	100%	100%	100%

- a) Product revenues for all prior periods presented have been adjusted to conform with the current year presentation, related to a reclassification of customer relationship amortization from product revenues to selling, general and administrative expenses.

Outsourcing, Production and Suppliers

Our global manufacturing and distribution facilities are located close to our key customers. In Europe we operate three manufacturing sites located in Macedonia, Germany and Ukraine and one distribution center located in Hungary. In North America, we operate three manufacturing sites in Mexico, one in the United States and one in Canada. In Asia, we operate three production sites in China and one in Vietnam.

We rely on various domestic and foreign vendors and suppliers to supply components for our products through purchase orders, with no guaranteed supply arrangements. Components for certain products, including TEDs, are only available from a limited number of suppliers in the world. The loss of any significant supplier, in the absence of a timely and satisfactory alternative arrangement, or an inability to obtain essential components on reasonable terms or at all, could materially adversely affect our business, operations and cash flows. Our business and operations could also be materially adversely affected by delays in deliveries from our suppliers.

Proprietary Rights and Patents

The development of new or improved technologies is critical to the execution of our business strategy. Patents obtained for new or improved technologies form an important basis for the success of the Company and underpin the success of our research and development efforts. We have adopted a policy of obtaining, where practical, the exclusive rights to use technology related to our products through patents or licenses for proprietary technologies or processes. We adapt and commercialize such technologies in products for mass production. We also have developed technologies or furthered the development of acquired technologies through internal research and development efforts.

As of December 31, 2019, Gentherm held 574 issued patents. Gentherm held 431 patents directed to climate control products and thermoelectric technologies, 92 patents directed at heating elements and technologies, 24 patents directed to medical technologies, 19 patents directed to air moving devices and 8 patents directed to cable and cell connector battery technologies. In furtherance of its Focused Growth strategy, the Company evaluated its patents during 2019 and made strategic decisions to reduce low-value patents and patents unrelated to current or planned business strategies.

Competition

See further discussion of the risks relating to competition in Item 1A, "Risk Factors".

Gentherm faces competition from other automotive suppliers and, with respect to certain products, from the automobile OEMs and Tier 1 suppliers who produce or have the capability to produce certain products Gentherm supplies. The automotive supply industry competes on the basis of technology, quality, reliability of supply and price. Design, engineering capability and competitive pricing are increasingly important factors.

The competitive landscape for Gentherm's climate comfort solutions and battery sub-systems includes: component specialists, thermal management system suppliers and tier-one suppliers or automobile OEMs with their own integrated solutions. Independent suppliers that represent the principal competitors of Gentherm include I.G. Bauerrhin GmbH, Kongsberg Automotive ASA, Lisa DRÄXLMAIER GmbH and ElringKlinger AG.

The competitive landscape for patient temperature management systems includes patient thermal management medical device OEMs. The principal competitors of Gentherm include 3M Company Co, Stryker Corporation and Becton, Dickinson and Company.

We believe our expertise in core thermal management technologies and occupant thermal comfort, as well as its capability in application specific component design, global footprint and broad product offerings make it well positioned to compete against the traditional thermal management systems suppliers, global tier-one's and component specialists.

Seasonality

Our principal operations are directly related to the automotive industry. Consequently, we have historically experienced seasonal fluctuations to the extent automotive vehicle production slows, such as in the summer months when many customer plants close for model year changeovers and in December when many customer plants close for the holidays. See Item 8 "Financial Statements and Supplementary Data" for selected quarterly financial data.

Backlog

Our product revenues are generally based upon purchase orders issued by our customers, with updated releases for volume adjustments. As such, we typically do not have a backlog of firm orders at any point in time. Once selected to supply products for a particular platform, we typically supply those products for the platform life, which is normally five to seven years, although there is no guarantee that this will occur. In addition, when we are the incumbent supplier to a given platform, we believe we have a competitive advantage in winning the redesign or replacement platform, although there is no guarantee that this will occur.

Employees

As of December 31, 2019 and 2018, Gentherm's employment levels worldwide were as follows:

	2019	2018
Mexico	4,130	5,494
Macedonia	1,871	1,771
China	1,812	2,173
Ukraine	1,725	1,959
Vietnam	909	717
United States and Canada	694	1,059
Germany	255	246
Hungary	252	259
Korea	37	39
Japan	23	21
Malta	13	13
United Kingdom	5	4
Total	11,726	13,755

Gentherm retains the services of outside contractors from time to time. Certain of our employees are represented by unions or works councils. We maintain good relations with both our union and non-union employees.

ITEM 1A. RISK FACTORS

You should carefully consider each of the risks, assumptions, uncertainties and other factors described below and elsewhere in this Report, as well as any amendments or updates reflected in subsequent filings or furnishings with the SEC. We believe these risks, assumptions, uncertainties and other factors, individually or in the aggregate, could cause our actual results to differ materially from expected and historical results and could materially and adversely affect our business operations, results of operations, financial condition and liquidity.

Risks Relating to Our Business

The automotive industry, our primary market, is cyclical and a decline in the production levels of our major customers, particularly with respect to models for which we supply significant amounts of product, could adversely affect our business, results of operations and financial condition.

Our Automotive segment represents 95%, 91% and 89% of our product revenues for the years ended December 31, 2019, 2018 and 2017, respectively. Demand for our automotive products is directly related to automotive vehicle production, which is ultimately dependent on consumer demand for automotive vehicles, and our content per vehicle. Automotive sales and production are cyclical and have been, and we expect will continue to be, materially affected by general economic and industry conditions, labor relations issues, fuel prices, regulatory requirements, government initiatives, trade agreements, the availability and cost of credit for us, customers and consumers and other factors. IHS Markit recently forecasted light vehicle production volumes of 87.2 million units, a decline of 1.9% from 2019.

We operate in a highly competitive industry and efforts by our competitors, as well as new non-traditional entrants to the industry could adversely affect our business, results of operations and financial condition.

The automotive component supply industry is subject to intense competition. Business is typically awarded to the supplier offering the most favorable combination of cost, quality, timely delivery, technological innovation and service. There can be no assurance that we will be able to compete successfully with the products of our competitors. Further, our competitors' efforts to grow market share could exert downward pressure on our product pricing and margins. Many of our competitors are substantially larger in size and have substantially greater financial, marketing and other resources than we do, and therefore may be more effective in adapting to customer requirements while being more profitable.

In addition, the global automotive industry is experiencing a period of significant technological change. Future automotive vehicle production may be affected by additional industry or consumer behaviors, including the development and use of autonomous and electric vehicles and increasing use of car- and ride-sharing and on-demand transportation as a service, as well as related

regulations. The rapidly evolving nature of the markets in which we compete has attracted, and may continue to attract, new entrants, including new entrants from outside the traditional automotive supply industry. Further, in comparison to us, our competitors may foresee the course of market developments more accurately, develop superior products, produce similar products at a lower cost, or adapt quicker to new technologies.

If we do not accurately predict, prepare for and respond to new kinds of technological innovations, market developments and changing customer needs, our sales, profitability and long-term competitiveness may be harmed.

If we fail to manage our growth effectively or to integrate successfully any new or future business ventures, acquisitions or strategic alliance into our business, our business could be materially adversely harmed.

We regularly consider opportunities to pursue business ventures, acquisitions, and strategic alliances that could leverage our products and capabilities, as well as, enhance our customer base, geographic penetration and scale, to complement our current businesses, some of which could be material. Finding and assessing a potential growth opportunity and completing a transaction involves extensive due diligence, management time and expense; however, the amount of information we can obtain about a potential growth opportunity may be limited. Further, we can give no assurance that new business ventures, acquisitions, and strategic alliances will positively affect our financial performance or will perform as planned, including regarding anticipated synergies. We may not be able to successfully assimilate or integrate companies that we acquire, including personnel, financial systems, distribution, operations, internal controls and general operating procedures. Further, for significant transactions, we would expect to incur additional debt, issue equity and/or increase capital expenditures, which may increase leverage risks, result in dilution or reduce capital available for other investments in ongoing operations. If we fail to assimilate or integrate acquired companies successfully, our business, reputation and results of operations could be materially impacted. Likewise, our failure to integrate and manage acquired companies successfully may lead to future impairment of any associated goodwill and intangible asset balances. Given our limited history in the patient temperature management business, the foregoing risks may be heightened due to our lack of experience in integrating similar businesses.

As part of the Company's ongoing Fit-for-Growth initiative, the Company consummated divestitures to eliminate investments in non-core businesses, and the Company may consider strategic dispositions in the future. However, we may not achieve some or all of the targeted results we originally anticipated at the time of disposition, and we may need to provide material transition services or retain material liabilities to complete the transaction, any of which could have an adverse impact on our returns and our overall profitability.

The loss or insolvency of any of our principal customers would adversely affect our future results.

For the year ended December 31, 2019, our top two customers were Lear and Adient which comprised 16% and 15%, respectively, of our product revenues. We are dependent on the continued growth, viability and financial stability of our customers, as well as the OEMS to which our products are supplied. The loss of any significant portion of our sales to any of our customers would have a material adverse effect on our results of operations and financial condition. In addition, we have significant receivable balances related to these customers that would be at risk in the event of their bankruptcy or other restructuring.

We manage our business based on projected future sales volume, which is highly dependent on information received from customers and general market data, and any inaccuracies or changes in such information could adversely affect our business, results of operations and financial condition.

We manage our business based upon projected future sales volumes, which are based upon many factors, including awarded business and assumptions of conversion rates thereof, customers' forecasts and general market data. Our customers generally do not guarantee sales volumes. In addition, awarded business may include business under arrangements that our customers have the right to terminate without penalty at any time. Further, our customers' forecasts are subject to numerous assumptions, and such forecasts often are/may be changed rapidly with limited notice. Therefore, our actual sales volumes, and thus the ultimate amount of revenue that we derive from such sales, are not committed. If actual production orders from our customers are not consistent with our projected future sales volumes, we could realize substantially less revenue and incur greater expenses over the life of vehicle programs.

Our inability to achieve product cost reductions which offset customer-imposed price reductions could adversely affect our financial performance.

Downward pricing pressure is customarily applied by automotive manufacturers to the automotive supply chain. Our customer contracts generally provide for annual price reductions over the production life of the vehicle, while requiring us to assume significant responsibility for the design, development and engineering of our products. Prices may also be adjusted on an ongoing basis to reflect changes in product content/costs and other commercial factors. Our inability to achieve product cost reductions that offset customer-imposed price reductions could adversely affect our financial condition, results of operations and cash flows.

Our inability to effectively manage the development, timing, quality and costs of new product launches could adversely affect our financial performance.

Gentherm is developing and launching new products and related technologies for its battery thermal management and electronic and software systems businesses, and intends to launch other new products in the future. The launch of products employing new technologies is a complex process, the success of which depends on a wide range of factors, including the robustness of our product and manufacturing process development, success in sourcing new components and commodities with suitable suppliers, readiness of our and our suppliers' manufacturing facilities and manufacturing processes, as well as factors related to tooling, equipment, employees, initial product quality and other factors. Given the complexity of new product launches, we may experience difficulties managing product quality, timeliness and associated costs. In addition, new program launches require a significant ramp up of costs. However, our sales related to these new programs generally are dependent upon the timing and success of our customers' introduction of new vehicles. Our inability to effectively manage the timing, quality and costs of these new program launches could have a materially adverse effect on our business, results of operations and financial condition.

To the extent we are not able to successfully launch new business, vehicle production at our customers could be significantly delayed or shut down. Such operating failures could result in significant financial penalties to us or a diversion of personnel and financial resources to improving launches rather than investment in continuous process improvement or other growth initiatives, and could result in our customers shifting work away from us to a competitor. Any of the foregoing matters could result in a significant loss of revenue and market shares and could have an adverse effect on our profitability and cash flows.

Our ability to market our products successfully depends on acceptance of our products by existing and potential customers and consumers, as well as the success of our customers.

We have been, and will continue to be, required to educate potential customers and demonstrate that the merits of our existing products justify the costs associated with them. Similar efforts will be required with existing and potential customers for additional products we develop using technologies we develop or license. Customers will only include our products if there appears to be consumer demand. For our automotive products, we rely on OEMs and applicable dealer networks to market our products to consumers, and we do not have any control over the marketing budget or messaging nor the training of employees and agents regarding our products. Further, OEMs and dealer networks may market products offered by our competitors, including products manufactured by such OEMs. If customers or consumers conclude that temperature control seats or our other automotive products are unnecessary or too expensive or that our competitors offer more favorable sales terms or better products, OEMs and other manufacturers may reduce availability or decline to include our products in their vehicles.

Adverse developments affecting one or more of our suppliers could harm our profitability and business reputation.

Our supply chain may be adversely impacted by events outside of our control, including macro-economic events, trade restrictions, political crises, labor relations issues, liquidity constraints, natural or environmental occurrences or other factors noted herein that can adversely affect us, which may adversely affect our operations and profitability. In particular, many of our products include TEDs, which contain certain raw materials that generally cannot be substituted. The prices for these raw materials fluctuate depending on market conditions. Tellurium, a raw material used in TEDs, and other key raw materials include copper, silver and petroleum-based engineered plastics. If the market prices for these raw materials significantly increases, as they have in the past, our gross profit may be adversely impacted to the extent our suppliers pass those price increases on to us.

If our suppliers fail to deliver products, parts and components of sufficient quality and to our other stated written expectations on a timely basis, we could have difficulties fulfilling our orders, sales and profits could decline, and our commercial reputation could be damaged. If we were to experience a significant or prolonged shortage of critical components from any of our suppliers, particularly those who are sole sources, and could not procure the components from other sources, we would be unable to meet its production schedules for some of our key products or to ship such products to our customers in a timely fashion which would adversely affect sales, margins and customer relations. Furthermore, unfavorable economic or industry conditions could result in financial distress within our supply base, thereby increasing the risk of supply disruption.

Our business is subject to risks associated with manufacturing processes.

If certain of our existing production facilities become incapable of manufacturing products for any reason, we may be unable to meet production requirements, sales and profits could decline, and our commercial reputation could be damaged. Without operation of certain existing production facilities, we may be limited in our ability to deliver products until we restore the manufacturing capability at the particular facility, find an alternative manufacturing facility or arrange an alternative source of supply.

We maintain property damage insurance that we believe to be adequate to provide for reconstruction of facilities and equipment, as well as business interruption insurance to mitigate losses resulting from any production interruption or shutdown caused by an insured loss. However, any recovery under our insurance policies may not offset the lost sales, harm to our business reputation or increased costs that may be experienced during the disruption of operations. Further, any such proceeds may be received and accounted for in a different reporting period, which could materially and adversely affect our business, financial condition, results of operations and cash flow generally or for a specific reporting period.

Work stoppages, including those at our customers, and similar events could significantly disrupt our business

Because the automotive industry relies heavily on “just-in-time” delivery of components, a work stoppage at one or more of Gentherm's production facilities could have adverse effects on the business. Similarly, if one or more of our direct customers or an OEM were to experience a work stoppage, such as what occurred during the General Motors labor strike occurring in fall 2019, our customer would likely halt or limit purchases of our products, which could result in the temporary shutdown of the related Gentherm production facilities or other restructuring initiatives.

Our global operations subject us to risks that may harm our operations and financial results.

In 2019, 55% of our product revenue was generated from sales to customers outside the United States. We have significant personnel, property, equipment and operations in a number of countries outside of the United States, including Canada, China, Germany, Hungary, Macedonia, Mexico, Ukraine and Vietnam. Our exposure to the risks described below is substantial. We also derive a significant portion of revenues from Europe and Asia and conduct certain investing and financing activities in local currencies.

In addition to the general risks relating to our operations, our international operations are subject to unique risks inherent in doing business abroad, including:

- exposure to local economic, political and labor conditions.
- different and complex local laws and regulations and enforcement thereof, including those relating to governance, taxes, litigation, anti-corruption, employment, employee benefits, environmental, competition, permitting, investment, product regulations, repatriation, and export/import restrictions or requirements, such as the recently implemented revised emissions test procedure in Europe referred to as the Worldwide Harmonized Light Vehicles Test Procedure that has limited the production of certain vehicles as OEMs have struggled to meet the new requirements;
- increases in duties, tariffs and taxation on our products related to U.S. trade disputes; trade restrictions and potential trade wars, including limitation on imports or exports of components or assembled products, unilaterally or bilaterally;
- exposure to infectious disease and epidemics, including the effects on our business operations, and those of our customers and suppliers, in geographic locations impacted by an outbreak, such as the ongoing coronavirus outbreak that began in China;

- violence and civil unrest (including acts of terrorism, drug-cartel related and other forms of violence and outbreaks of war);
- expropriation, nationalization or other protectionist activities;
- currency exchange rate fluctuations and currency controls; in particular, a significant portion of our revenues and expenses are denominated in currencies other than the U.S. Dollar, including the Euro, the Chinese Renminbi, the Vietnamese Dong, the Hungarian Forint, the Macedonian Denar, the Ukrainian Hryvnia, and the Mexican Peso;
- local business and cultural factors that differ from our customary standards and practices, including business practices that we are prohibited from engaging in due to anti-corruption laws and regulations; and
- ineffective legal protection of our intellectual property rights in certain countries.

In particular, we derived over 20% of our revenue in fiscal 2019 (based on shipment destination) from Japan, China and South Korea. We have three manufacturing facilities in China, and several of our customers, subcontractors and suppliers also are located in China as well as Japan and South Korea. As a result of the coronavirus, our operations, and those of our customers and suppliers, have experienced and in the future may experience delays or disruptions, such as difficulty obtaining components, travel restrictions and temporary suspension of operations. In addition, our financial condition and results of operations could be adversely affected to the extent that coronavirus or any other epidemic or outbreak harms motor vehicle product consumption specifically and the economies of China, Japan and South Korea and the world generally

Additionally, our primary manufacturing locations are in Mexico, China, Vietnam, Macedonia and Ukraine, all countries that have historically experienced a heightened degree of political, civil and labor uncertainty. Political conflict and related demonstrations and violence in Ukraine in recent years, for example, highlights the risks to our foreign manufacturing facilities. Although our manufacturing facility in Ukraine is located approximately 700 miles by road from Kiev, and approximately the same distance from the activities along the border of Ukraine and Russia where fighting has occurred, we cannot be certain that similar demonstrations, unrest and international tensions will not affect our facility in the future, including due to electrical outages and periodic battles with separatists closer to our facility. In addition, certain of our employees in Ukraine are routinely conscripted into the military and/or sent to the Russian border to fight in the ongoing conflict. Furthermore, most of our products manufactured in Ukraine are shipped across the border from Ukraine to Hungary for further delivery to our customers. If that border crossing were to be closed or restricted for any reason, we would essentially experience a loss of the use of our Ukrainian facility, which would have a material adverse effect on our business.

Our results of operations and financial condition may be adversely impacted from a decrease in or cessation or clawback of government incentives related to investments.

We receive economic benefits from national, state and local governments in various regions of the world in the form of incentives designed to encourage manufacturers to establish, maintain or increase investment, workforce or production. These incentives may take various forms, including grants, loan subsidies and tax abatements or credits. The impact of these incentives can be significant in a particular market during a reporting period. A decrease in, expiration without renewal of, or other cessation or clawback of government incentives for any of our business units, as a result of administrative decision or otherwise, could have an adverse impact on our results of operations and financial condition, as well as our ability to fund new investments.

Changes to trade policy, including tariffs and customs regulations, could have a material and adverse effect on our business.

A significant portion of our business activities are conducted in foreign countries, including Mexico. As a result of changes to U.S. administrative policy, there may be changes to existing trade agreements, like NAFTA and its anticipated successor agreement, the U.S.-Mexico-Canada Agreement (“USMCA”) which is still subject to approval by Canada, greater restrictions on free trade generally, and significant increases in tariffs on goods imported into the U.S., particularly tariffs on products manufactured in Mexico, among other possible changes.

Additionally, during 2018, the U.S. and China applied significant tariffs to certain of each other’s exports. The institution of trade tariffs, both globally and between the U.S. and China specifically, carries the risk of negatively impacting overall economic conditions, which could have negative repercussions on the Company. More directly, imposition of tariffs has caused and could cause further increases in the costs of our raw materials which we may not be able to pass on to our customers in part or in full, which would directly and negatively impact our business. We purchase a significant amount of raw material components, including products

manufactured in our China facilities, which are subject to such tariffs. The imposition of tariffs has caused and could cause further increases in the costs of our raw materials, and we may not be able to mitigate the impact from these tariffs or additional future tariffs.

Most recently, a “phase one” trade deal signed between the U.S. and China on January 15, 2020 accompanied a U.S. decision to cancel a plan to increase tariffs on an additional list of Chinese products. While the signing of the agreement signals a cooling of tensions between the U.S. and China over trade, concerns over the stability of bilateral trade relations remain, particularly given the limited scope of the phase one agreement. Depending upon their duration and implementation, as well as our ability to mitigate their impact, these tariffs, the executive order and its implementation and other regulatory actions could materially affect our business, including in the form of increase cost of goods sold, decreased margins, increased pricing for customers, and reduced sales.

The United Kingdom’s withdrawal from the European Union may have a negative impact on global economic conditions, financial markets and our financial results.

The United Kingdom left the European Union January 31, 2020 (“Brexit”). Under the current withdrawal agreement between the United Kingdom and the European Union, the United Kingdom will be subject to a transition period until December 31, 2020, during which European Union rules will continue to apply. The relationship between the United Kingdom and the European Union after the transition period has not been determined yet. As a result, the impact of Brexit is not yet known and depends on any agreements the United Kingdom and European Union may make to retain access to each other’s markets after the transition period. The measures or lack of any agreement may continue to impact global light vehicle production, and affect the business of and/or our relationships with our customers and suppliers, as well as alter the relationship among tariffs and currencies. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations, including with respect to data privacy. A withdrawal from the European Union is unprecedented and it is unclear what financial, trade, legal and employment implications the withdrawal of the United Kingdom from the European Union will have following the transition period and how the withdrawal will affect us. Adverse consequences such as reduced consumer spending, deterioration in economic conditions, volatility in exchange rates, and prohibitive laws and regulations could have a negative impact on our business, operating results and financial condition.

Tax matters, including changes in the corporate tax rates, disagreement with taxing authorities and imposition of new taxes could impact our results of operations and financial condition.

We are subject to income and other taxes in the U.S. and our operations, plans and results are affected by tax legislation and other initiatives. For example, on December 22, 2017, the Tax Cuts and Jobs Act (H.R. 1) (the “Tax Act”) was signed into law by President Trump. The Tax Act contained significant changes to corporate taxation, including reduction of the corporate tax rate from 35% to 21%, limitation of the tax deduction for interest expense to 30% of earnings (except for certain small business), limitation of the deduction for net operation losses (“NOLs”) to 80% of current year taxable income and elimination of NOL carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they were repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), new taxes on certain foreign earnings, a new minimum tax related to payment to foreign subsidiaries and affiliates, immediate deductions for certain new investments instead of deductions for depreciation expense over time, and the modification or repeal of many business deductions and credits. It remains uncertain if, and to what extent, various states will conform to the Tax Act and if foreign countries will react by adopting tax legislation or taking other actions.

We are also subject to regular reviews, examinations, and audits by the Internal Revenue Service and other taxing authorities with respect to our taxes. Although we believe our tax estimates are reasonable, if a taxing authority disagrees with the positions we have taken, we could face additional tax liability, including interest and penalties. There can be no assurance that payment of such additional amounts upon final adjudication of any disputes will not have a material impact on our result of operations and financial position.

We also need to comply with new, evolving or revised tax laws and regulations. The enactment of or increases in tariffs, or other changes in the application or interpretation of the Tax Act, or on specific products that we sell or with which our products compete, may have an adverse effect on our business or on our results of operations.

Our patient temperature management business is subject to extensive industry regulation and failure to comply with all applicable rules and regulation may adversely impact us.

Our patient temperature management products are subject to extensive, complex, costly and evolving government regulation. In the United States, this is principally administered by the Food and Drug Administration (“FDA”). Various regulatory agencies in foreign countries where our medical products are sold also regulate that business. Under both United States and foreign country

regulations, we are subject to periodic inspection of our facilities (including third-party facilities that are performing services for us), procedures and operations and testing of our products. Following such FDA inspections, should any noncompliance with regulations or other quality issues be noted, we may receive observations, notices, citations and/or warning letters that could require us to get FDA approval of a corrective action plan and modify certain activities identified during the inspection, possibly at a significant cost. We are also required to report adverse events associated with our medical products to the FDA and other foreign regulatory authorities where our products have been approved or received market clearance. Unexpected or serious health or safety concerns could result in liability claims, recalls, market withdrawals or other regulatory actions. Changes in laws or regulations could require us to change the way we operate or to utilize resources to maintain compliance, which could increase costs or otherwise disrupt operations. In addition, failure to comply with any applicable laws or regulations could result in fines or revocation of our operating permits and licenses or, in rare circumstances, market withdrawal of the product.

The process for obtaining governmental approval to manufacture and market new medical devices is time-consuming and costly. We are dependent on receiving FDA and other governmental or third-party approvals prior to manufacturing, marketing and shipping any new medical products. We cannot be certain that any new medical products we develop will receive FDA or other necessary approvals. Also receipt of approval in one country does not guarantee approval by the FDA or any other foreign regulatory agency.

Defects or quality issues associated with our medical products could adversely affect the results of our operations.

The design, manufacture and marketing of medical products involve certain inherent risks. Manufacturing or design defects, component failures, unapproved or improper use of our products, or inadequate disclosure of risks or other information relating to the use of our products can lead to regulatory action, injury or other serious adverse events. These events could lead to recalls or safety alerts relating to our products (either voluntary or as required by the FDA or similar governmental authorities in other countries), and could result, in certain cases, in the removal of a product from the market. A recall, inadequate disclosure or defect could result in significant costs and lost sales and customers, enforcement actions and/or investigations by state and federal governments or other enforcement bodies, as well as negative publicity and damage to our reputation that could reduce future demand for our products. Personal injuries relating to the use of our products can also result in significant product liability claims being brought against us. In some circumstances, such adverse events could also cause delays in regulatory approval of new products or the imposition of post-market approval requirements, such as further clinical testing. Such clinical testing is costly and time-consuming and could delay market approval or the meeting of additional post-market requirements.

Any failure to comply with anti-corruption laws and regulations could have a material and adverse effect on our reputation, business and financial results.

Our operations outside of the United States require us to comply with various anti-bribery and anti-corruption regulations, including but not limited to the U.S. Foreign Corrupt Practices Act, the United Kingdom Bribery Act and the China Anti-Unfair Competition Law. Violations of these laws, which are complex and often difficult to interpret and apply, could result in significant criminal penalties or sanctions that could adversely affect our business, financial condition, results of operations and cash flows.

We are subject to significant foreign currency risk and foreign exchange exposure related to our global operations.

A significant portion of our global transactions is conducted in currencies other than the U.S. Dollar. While we sometimes employ financial instruments to hedge some of our transactional foreign exchange exposure, developing an effective and economical foreign currency risk strategy is complex and expensive and no strategy can completely insulate us from those exposures. Exchange rates can be volatile and could adversely affect our financial results and comparability of results from period to period.

We use important intellectual property in our business. If we are unable to protect our intellectual property or if a third party makes assertions against us or our customers relating to intellectual property rights, our business could be adversely affected.

We own important intellectual property, including patents, trademarks, copyrights and trade secrets, and are involved in numerous licensing arrangements. Our intellectual property plays an important role in maintaining our competitive position in many of the markets that we serve.

We cannot guarantee, however, that we will be able to secure all desired protection, nor that the steps we have taken to protect our intellectual property will be adequate, to prevent infringement of our rights or misappropriation or theft of our technology, trade secrets or know-how. For example, effective patent, trademark, copyright and trade secret protection may be unavailable or limited in some of the countries in which we operate. In addition, while we generally enter into confidentiality agreements with our employees and third parties to protect our trade secrets, know-how, business strategy and other proprietary information, such confidentiality agreements could be breached or otherwise may not provide meaningful protection for our trade secrets and know-how related to the design, manufacture or operation of our products. If it became necessary for us to resort to litigation to protect our intellectual property rights, any proceedings could be burdensome and costly, and we may not prevail. Further, adequate remedies may not be available in the event of an unauthorized use or disclosure of our trade secrets and manufacturing expertise. Finally, for those products in our portfolio that rely on patent protection, once a patent has expired, the product is generally open to competition. Products under patent protection usually generate significantly higher revenues than those not protected by patents. If we fail to successfully enforce our intellectual property rights, our competitive position could suffer, which could harm our business, financial condition, results of operations and cash flows.

In addition, our competitors may develop technologies that are similar or superior to our proprietary technologies or design around the patents we own or license. Further, as we expand our operations in jurisdictions where the protection of intellectual property rights is less robust, such as China, the risk of others duplicating our proprietary technologies increases, despite efforts we undertake to protect them. Foreign governments may adopt regulations, and foreign governments or courts may render decisions, requiring compulsory licensing of intellectual property rights, or foreign governments may require products to meet standards that serve to favor local companies or provide reduced protection relative to other countries.

A significant product liability lawsuit, warranty claim or product recall involving us or one of our major customers, or an investigation regarding vehicle safety generally, could materially and adversely affect our financial performance.

In the event that our products fail to perform as expected, whether allegedly due to our fault or that of one of our suppliers, and such failure results in, or is alleged to result in, bodily injury and/or property damage or other losses, we may be subject to product liability lawsuits and other claims, and we have been in the past and may again be required or requested by our customers or regulators to participate in a recall or other corrective action involving such products. We also are a party to agreements with certain of our customers, whereby these customers may pursue claims against us for contribution of all or a portion of the amounts sought in connection with product liability and warranty claims. We carry insurance for certain product liability claims, and have utilized such insurance periodically. However, such coverage may be limited for future claims. In addition, we may not be successful in recovering amounts from third parties, including suppliers, in connection with these claims. These types of claims could materially and adversely affect our financial condition, operating results and cash flows.

We are involved from time to time in various legal and regulatory proceedings and claims, which could adversely affect our financial performance.

We are involved in various legal and regulatory proceedings and claims that, from time to time, are significant. These are typically claims that arise in the normal course of business including, without limitation, commercial or contractual disputes, including disputes with our customers, suppliers or competitors, intellectual property matters, personal injury claims, environmental matters, tax matters and employment matters. Such legal and regulatory proceedings could result in an adverse outcome for the Company that would adversely affect our financial condition, results of operations and cash flows.

Our success depends in part on retaining key personnel and effective succession planning.

Our success will depend to a large extent upon the continued contributions of key personnel. The loss of the services of one or more of our executive officers could adversely affect our business. Effective succession planning is also important to our long-term success. Failure to ensure effective transfer of knowledge and smooth transitions involving key employees could hinder our strategic planning and execution. Further, our success will depend, in part, upon our ability to recruit and retain qualified engineering and other technical and marketing personnel. There is significant competition for technologically qualified personnel in our business and we may not be successful in recruiting or retaining sufficient qualified personnel.

We are required to comply with environmental laws and regulations that could cause us to incur significant costs.

Our manufacturing facilities are subject to numerous laws and regulations designed to protect the environment, and we expect that additional requirements with respect to environmental matters will be imposed on us in the future. We may also assume, or be deemed to assume, significant environmental liabilities in acquisitions. Environmental liability may be imposed without regard to fault, and under certain circumstances, can be joint and several, resulting in one party being held responsible for the entire obligation. Material future expenditures may be necessary if compliance standards change or material unknown conditions that require remediation are discovered. No assurance can be given that all environmental liabilities have been identified or that no prior owner or operator of our properties or former properties has created an environmental condition not known to us. Environmental laws could also restrict our ability to expand our facilities or could require us to acquire costly equipment or to incur other significant expenses in connection with our business. Violations of these requirements could result in fines or sanctions, obligations to investigate or remediate contamination, third party property damage or personal injury claims due to the migration of contaminants off-site, or modification or revocation of our operating permits, which could materially and adversely affect our financial condition, results of operations and cash flows. Additionally, proposed and existing efforts to address climate change by reducing greenhouse gas emissions could directly or indirectly affect our costs of energy, materials, manufacturing, distribution, packaging and other operating costs, which could impact our business and financial results.

We may be unable to realize the expected benefits of our restructuring actions, which could adversely affect our profitability and operations.

We have undertaken significant restructuring activities in recent years that remain ongoing, and may take future restructuring actions to realign and resize our production capacity and cost structure, lower our cost base, improve our financial performance and cash flow generation, and create a simplified organization best positioned to deliver on our key financial and operational priorities. Charges related to these actions or any further restructuring actions may have a material adverse effect on our results of operations and financial condition. We cannot ensure that any current or future restructuring will be completed as planned, on a timely basis or at all, will be on budget, or achieve the desired results.

Our existing indebtedness and the inability to access capital markets could restrict our business activities or our ability to execute our strategic objectives or adversely affect our financial performance.

As of December 31, 2019, our total consolidated indebtedness was \$80.6 million. We may also incur additional indebtedness in the future. This significant amount of debt could have important, adverse consequences to us and our investors, including:

- requiring a substantial portion of our cash flow from operations to make interest payments;
- making it more difficult to satisfy other obligations;
- increasing our vulnerability to general adverse economic and industry conditions;
- reducing the cash flow available to fund capital expenditures and other corporate purposes and to grow our businesses
- limiting our flexibility in planning for, or reacting to, changes in our businesses and industries; and
- limiting our ability to borrow additional funds as needed or take advantage of business opportunities as they arise;

Our debt agreements contain certain restrictive covenants and customary events of default. These restrictive covenants limit our ability to take certain actions, such as, among other things: incur additional debt, make certain payments or distributions (including for the repurchase or redemption of our shares), engage in mergers or consolidations, make certain dispositions and transfers of assets, enter into transactions with affiliates and guarantee indebtedness. While not unusual for financings of the type that we have, the restrictions in our credit facilities may prevent us from taking actions that we believe would be in the best interest of our business and may make it difficult for us to execute our business plans, take advantage of business opportunities, or react to changing industry conditions.

To the extent that we incur additional indebtedness, the risks described above could increase. In addition, our actual cash requirements in the future may be greater than expected. Our cash flow from operations may not be sufficient to service our outstanding debt or to repay the outstanding debt as it becomes due, and we may not be able to borrow money, sell assets or otherwise raise funds on acceptable terms, or at all, to service or refinance our debt.

If an event of default would occur under our existing debt agreements or any additional indebtedness, our lenders could declare all amounts outstanding to be immediately due and payable, which may cause cross-defaults under our other debt obligations. If our lenders accelerate the maturity of our indebtedness, we may not have sufficient capital available at that time to pay the amounts due to all lenders on a timely basis, and there is no guarantee that we would be able to repay, refinance, or restructure the payments on such debt. Further, under our existing credit facilities, the lenders would have the right to foreclose on certain of our assets, which could have a material adverse effect on our business, results of operations and financial condition.

An adverse change in the interest rates for our borrowings could adversely affect our financial condition

Our current outstanding variable rate indebtedness uses LIBOR as a benchmark for establishing the interest rate. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform. These reforms may cause LIBOR to disappear entirely after 2021 or to perform differently than in the past. We expect that reasonable alternatives to LIBOR will be created and implemented prior to the 2021 target date. Fallback provisions are being written into LIBOR-based contracts to attempt to reduce the risk of sudden and unpredictable increases in the cost of variable rate indebtedness. However, we cannot predict the consequences and timing of these developments.

Additionally, in the future, we may need to renegotiate our existing indebtedness or incur other indebtedness, and the phase-out of LIBOR may negatively impact the terms of such indebtedness. In addition, the overall financial market may be disrupted as a result of the phase-out or replacement of LIBOR, which could have a material adverse effect on our financial position, results of operations, and liquidity.

Security breaches and other disruptions to our information technology networks and systems, including a disruption related to cybersecurity, could interfere with our operations and could compromise the confidentiality of our proprietary information or personal information.

We rely upon information technology networks and systems, some of which are managed or hosted by third-parties, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities, including electronic communications among our locations around the world and between Company personnel and our customers and suppliers, supply chain management, manufacturing, and invoicing and collection of payments. We use these information technology network and systems to process financial information and results of operations for internal reporting purposes and to comply with regulatory financial reporting and legal and tax requirements. Additionally, we collect and store sensitive data, including intellectual property, proprietary business information, the proprietary business information of our customers and suppliers, as well as personally identifiable information of our employees, customers and suppliers, in data centers, on information technology networks and systems, some of which are operated by third parties and third-party locations. The secure operation of these data centers, information technology networks, and systems and the processing, maintenance, confidentiality, integrity and availability of this information, is critical to our business operations and strategy.

The Company maintains an information risk management program which is supervised by information technology management and reviewed by a cross-functional committee. As part of this program, reports that include analysis of emerging risks as well as the Company's plans and strategies to address them are regularly prepared and presented to senior management and the Board of Directors. Despite security measures, such as disaster recovery and business continuity plans, including those measures related to cybersecurity, these data centers, our information technology networks and systems may be vulnerable to damage, corruption, disruptions or shutdowns due to attacks by hackers or breaches due to errors or malfeasance by employees, contractors and others who have access to our networks and systems, or other disruptions during the process of upgrading or replacing computer software or hardware, power outages, computer viruses, telecommunication or utility failures, geopolitical events, or natural disasters or other catastrophic events.

Cyber threats are constantly evolving, thereby increasing the difficulty of detecting and successfully defending against them. The occurrence of any of the aforementioned events, many of which are outside our control, could compromise our systems or networks and the information stored there, which may include confidential or proprietary information or personal information of third parties, could be accessed, publicly disclosed, compromised, corrupted, lost or stolen. Any such access, disclosure or other loss or corruption of information could result in legal claims or proceedings, liability or regulatory penalties under laws protecting the privacy of personal information, disrupt operations, cause a loss of confidence in our reputation, goodwill, products and services, reduce the competitive advantage we expect to derive from our investment in advanced technologies and adversely affect our financial condition.

results of operations, and cash flows. We maintain cyber risk insurance, but this insurance may not be sufficient to cover all of our losses from any future breaches of our systems.

We may face particular privacy, data security and data protection risks.

Legislators and/or regulators in countries in which we operate are increasingly adopting or revising privacy, information security and data protection laws. In particular, the European Union's General Data Protection Regulation ("GDPR"), which became effective on May 25, 2018, imposes additional obligations and risk upon our business and which increases substantially the penalties to which we could be subject in the event of any non-compliance. The GDPR and other similar laws and regulations, including the new California Consumer Protection Act ("CCPA") and other similar state laws recently or soon to be enacted, as well as any associated inquiries or investigations or any other government actions, may be costly to comply with, result in negative publicity, increase our operating costs, require significant management time and attention, and subject us to remedies that may harm our business, including fines or demands or orders that we modify or cease existing business practices. Furthermore, the CCPA went into effect on January 1, 2020 and many of its requirements have not yet been interpreted by courts, and best practices are still being developed by the industry, all of which increase the risk of compliance failure and related adverse impacts.

Any failure to maintain effective internal control over financial reporting or disclosure controls and procedures may affect our ability to accurately report our financial results, cause us to fail to meet our reporting obligations, fail to prevent fraud and adversely affect the market price of our common stock.

Under the Sarbanes-Oxley Act, we must maintain effective internal control over financial reporting and disclosure controls and procedures, which requires significant resources and management oversight. Effectiveness of such controls are necessary for us to provide reliable financial reports, effectively prevent fraud and to operate successfully as a public company.

Our management determined we had a material weakness in our internal control over financial reporting as of December 31, 2018, which we determined was remediated as of September 30, 2019. Any future failure to maintain effective internal control over financial reporting or disclosure controls and procedures, or timely effect any necessary improvement of such controls, could harm our results of operations or cause us to fail to meet our reporting obligations, which could subject us to adverse regulatory consequences. Ineffectiveness of such controls also could cause investors to lose confidence in our reported financial information, which would likely have a negative effect on the trading price of our stock.

We are currently restricted in our ability to make dividend payments on our Common Stock. Furthermore, we do not anticipate paying dividends on our Common Stock in the near future.

Our bank credit facilities generally restrict our ability to pay cash of dividends on our Common Stock so long as such facilities are outstanding. We have never paid any cash dividends on our Common Stock and do not anticipate paying dividends in the near future.

The price of our Common Stock may fluctuate significantly.

The price of our Common Stock on the Nasdaq Global Select Market has experienced substantial price volatility in the past and may continue to do so in the future. Additionally, the Company, the automotive industry and the stock market as a whole have experienced significant stock price and volume fluctuations that have affected stock prices in ways that may have been unrelated to these companies' operating performance. Price volatility over a given period may cause the average price at which the Company repurchases its stock to exceed the stock's price at a given point in time. If the Company fails to meet expectations related to future growth, profitability, share repurchases or other market expectations, its stock price may decline significantly, which could have a material adverse impact on investor confidence and employee retention.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The following table presents the Company's significant properties as of December 31, 2019:

Facility	Location	Purpose	Segment	Square Footage	Owned or Leased	Monthly Rent	Lease Expiration
Gentherm Headquarters	Northville, MI U.S.A.	Corporate Headquarters	Automotive	82,000	Owned	\$ —	—
Gentherm North America	Farmington Hills, MI U.S.A.	Research and Development	Automotive and Industrial	44,000	Owned	\$ —	—
Gentherm Medical	Cincinnati, OH U.S.A.	Medical Headquarters and Manufacturing	Industrial	84,000	Leased	\$ 51,800	1/31/2022
Gentherm GmbH	Odelzhausen, Germany	Customer Service Center and Research and Development	Automotive	170,600	Owned	\$ —	—
Gentherm Hungary	Pilisszentivan, Hungary	Distribution Center	Automotive	298,700	Owned	\$ —	—
Gentherm Ukraine	Vinogradov, Ukraine	Manufacturing	Automotive	209,500	Owned	\$ —	—
Gentherm Macedonia	Prilep, Macedonia	Manufacturing	Automotive	403,500	Owned	\$ —	—
Gentherm China	Langfang, China	Manufacturing	Automotive	279,900	Owned	\$ —	—
Gentherm Asia Electronics	Shenzhen, China	Manufacturing	Automotive	74,400	Leased	\$ 54,800	12/31/2021
Gentherm Asia Electronics	Shenzhen, China	Manufacturing	Automotive	49,300	Leased	\$ 24,600	11/30/2022
Gentherm Vietnam	Ha Nam, Vietnam	Manufacturing	Automotive	245,300	Owned	\$ —	—
Gentherm Mexico	Acuña, Mexico	Manufacturing	Automotive	105,600	Leased	\$ 27,900	6/1/2020
Gentherm Mexico	Acuña, Mexico	Manufacturing	Automotive	106,500	Leased	\$ 44,700	7/1/2020
Gentherm Mexico	Celaya, Mexico	Manufacturing	Automotive	147,900	Leased	\$ 65,300	10/1/2025
Gentherm Canada	Burlington, Canada	Manufacturing	Automotive	46,000	Leased	\$ 21,800	11/24/2022
Stihler Electronic GmbH	Stuttgart, Germany	Manufacturing	Industrial	18,000	Leased	\$ 14,300	6/30/2020

ITEM 3. LEGAL PROCEEDINGS

We are subject to litigation from time to time in the ordinary course of our business, however there is no current material pending litigation to which we are a party and no material legal proceedings were terminated, settled or otherwise resolved during the fourth quarter of the fiscal year ended December 31, 2019.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

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

Market Information

Our Common Stock trades on the Nasdaq Global Select Market under the symbol "THRM."

Holdings

As of February 14, 2020, our Common Stock was held by 40 shareholders of record. A substantially greater number of holders are beneficial owners whose shares of record are held by banks, brokers and other nominees.

Dividends

We have not paid any Common Stock cash dividends since formation and we do not expect to pay any in the foreseeable future. The payment of future dividends is within the discretion of our Board of Directors and will depend upon business conditions, our earnings and financial condition and other factors. Currently, our bank credit facilities limit payment of dividends on our Common Stock.

Stock Repurchase Program

In December 2016, the Board of Directors authorized a three-year, \$100 million stock repurchase program. In June 2018, our Board of Directors authorized an increase in the stock repurchase plan to \$300 million and extended the stock repurchase plan until December 2020.

Under the program, we may repurchase, from time to time, our common stock in amounts and at prices as we deem appropriate, taking into account market conditions, applicable legal requirements, debt covenants and other considerations. The number of shares repurchased and the time of the repurchases under the stock repurchase program will be determined by our management. Repurchases may be made on the open market or in privately negotiated transactions. Repurchases may also be made under the Exchange Act Rule 10b5-1 plan, which would permit shares to be repurchased when we might otherwise be precluded from doing so under securities laws. The authorization of this stock repurchase program does not require we repurchase any specific dollar value or number of shares and may be modified, extended or terminated by our Board of Directors at any time.

Issuer Purchases of Equity Securities During Fourth Quarter 2019

Period	(a) Total Number of Shares Purchased (1)	(b) Average Price Paid per Share	(c) Total Number of Shares Repurchased as Part of Publicly Announced Plans or Programs	(d) Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (2)
October 1, 2019 to October 31, 2019	86,106	\$ 39.72	86,106	\$ 85,140,110
November 1, 2019 to November 30, 2019	44,600	\$ 40.87	44,600	\$ 83,317,485
December 1, 2019 to December 31, 2019	—	\$ —	—	\$ 83,317,485

(1) All shares were purchased on the open-market in accordance with Gentherm's Stock Repurchase Program, including, in part, pursuant to a plan adopted by the Company in accordance with Rule 10b5-1 promulgated by the U.S. Securities and Exchange Commission.

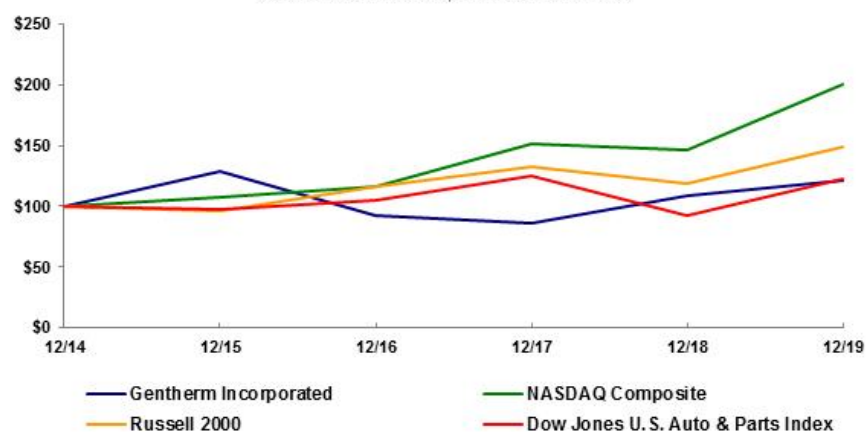
(2) The Stock Repurchase Program, as amended, authorizes Gentherm to repurchase shares up to \$300 million.

Performance Graph

The following graph reflects the comparative changes in the value from December 31, 2014 through December 31, 2019, assuming an initial investment of \$100 and the reinvestment of dividends, if any, in (1) our Common Stock, (2) the NASDAQ Composite index, (3) the Russell 2000 Index and (4) the Dow Jones U.S. Auto & Parts Index. Historical performance may not be indicative of future shareholder returns.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Gentherm Incorporated, the NASDAQ Composite Index, the Russell 2000 Index, and Auto Parts Index.



As of December 31,

	2014	2015	2016	2017	2018	2019
Gentherm Incorporated	\$ 100.00	\$ 129.44	\$ 92.44	\$ 86.70	\$ 109.18	\$ 121.22
NASDAQ Composite Index	\$ 100.00	\$ 106.96	\$ 116.45	\$ 150.96	\$ 146.67	\$ 200.49
Russell 2000 Index	\$ 100.00	\$ 95.59	\$ 115.95	\$ 132.94	\$ 118.30	\$ 148.49
Dow Jones U.S. Auto & Parts Index	\$ 100.00	\$ 97.85	\$ 104.83	\$ 125.05	\$ 92.48	\$ 122.02

ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth selected financial data and should be read in conjunction with the consolidated financial statements and the notes thereto, as well as Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in this Report.

	Year Ended December 31,				
	(In thousands, except per share data)				
	2019	2018	2017	2016	2015
Product revenues(a)	\$ 971,684	\$ 1,048,505	\$ 993,991	\$ 925,206	\$ 863,152
Operating income	84,260	72,788	97,098	106,119	121,319
Net income	37,506	41,899	35,227	76,598	95,393
Basic earnings per share	\$ 1.13	\$ 1.17	\$ 0.96	\$ 2.10	\$ 2.65
Diluted earnings per share	\$ 1.13	\$ 1.16	\$ 0.96	\$ 2.09	\$ 2.62

	As of December 31,				
	(In thousands)				
	2019	2018	2017	2016	2015
Working capital (b)(c)	\$ 217,159	\$ 267,679	\$ 289,754	\$ 295,130	\$ 270,320
Total assets (c)	727,386	803,047	883,405	843,030	648,343
Long-term obligations	98,032	147,952	158,216	189,002	118,596
Accumulated earnings	401,732	363,965	293,645	256,922	180,324

- a) Product revenues for all prior periods presented have been adjusted to conform with the current year presentation, related to a reclassification of customer relationship amortization from product revenues to selling, general and administrative expenses for the years ended December 31, 2018, 2017, 2016 and 2015. See Note 2, “Significant Accounting Policies” to the consolidated financial statements included in this Report for further details regarding these adjustments.
- b) Represents current assets less current liabilities.
- c) Working capital and total assets for the year ended December 31, 2015 reflect the noncurrent presentation of deferred tax liabilities and assets, as well as related valuation allowance, consistent with all other periods presented in the table above. The Company adopted the Financial Accounting Standards Board (the “FASB”) Accounting Standard Update (“ASU”) 2015-17, “Income Taxes (Topic 740) Balance Sheet Classification of Deferred Taxes” for the year ended December 31, 2016 and applied the change retrospectively to the amounts presented for the year ended December 31, 2015.

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

The following discussion and analysis should be read in conjunction with, and is qualified in its entirety by, our consolidated financial statements (and notes related thereto) and other more detailed financial information appearing elsewhere in this Report. Further, you should read the following discussion and analysis of our financial condition and results of operations together with the "Risk Factors" included elsewhere in this Report for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. See also "Forward-Looking Statements" in Item 1 of this Report.

Overview

Gentherm Incorporated is a global developer and marketer of innovative thermal management technologies for a broad range of heating and cooling and temperature control applications. Our products provide solutions for automotive passenger climate comfort and convenience, battery thermal management and cell connecting systems, as well as patient temperature management within the health care industry. Our automotive products can be found on the vehicles of nearly all major automotive manufacturers operating in North America, Europe and Asia. We operate in locations aligned with our major customers' product strategies to provide locally enhanced design, integration and production capabilities. The Company is also developing a number of new technologies and products that will help enable improvements to existing products and to create new product applications for existing and new markets.

We believe that innovation is an important element to gaining market acceptance of our products and strengthening our market position. During 2019, we secured an estimated \$1.5 billion of automotive new business awards, which represents the estimated future lifetime product revenues for all automotive customers. This amount does not represent firm customer orders. We report our new business awards primarily based on communication of award from our customers using price and volume projections available at the time of award, and we have not updated such previously communicated estimates as of December 31, 2019 or the date hereof. Our estimates of automotive new business awards are forward-looking statements and may not actually be achieved. See the risk factor "We may not realize sales represented by awarded business" in Item 1A "Risk Factors" of Part I of this report.

Recent Trends and Economic Conditions

Our sales are driven by the number of vehicles produced by the automotive manufacturers, which is ultimately dependent on consumer demand for automotive vehicles, and our content per vehicle. New vehicle demand is driven by macro-economic and other factors, such as interest rates, manufacturer and dealer sales incentives, fuel prices, consumer confidence, employment levels, income growth trends and government and tax incentives. According to the forecasting firm IHS Markit, global light vehicle production was 88.9 million units in 2019, down from 94.2 million units in 2018, a decline of 5.6%. Actual light vehicle production volumes in North America for 2019 were 16.3 million units compared to 17.0 million units in 2018, a decrease of 4.0%, and light vehicle production volumes in Europe were 21.1 million units for 2019 compared to 22.0 million units in 2018, a decrease of 4.2%. Actual light vehicle production volumes in Japan/Korea remained relatively stable with 13.1 million units in 2019 compared to 13.2 million units in 2018, a decrease of 0.8%. The largest light vehicle production volume decline was in China, with 24.7 million units in 2019 compared to 26.9 million units in 2018, a decrease of 8.2%.

IHS Markit forecasted light vehicle production volumes for 2020 is 87.2 million units, a decline of 1.9% from 2019 primarily related to the recent coronavirus outbreak originating from China, and the significant impact to manufacturing and consumption in the broader China market, as well as Japan and South Korea. The coronavirus outbreak has resulted in extended shutdown of certain businesses in the region and disruptions in the supply chain, which could result in further social, economic and labor instability.

Economic volatility or weakness in North America, Europe or Asia, could result in a significant reduction in automotive sales and production by our customers, which would have an adverse effect on our business, results of operations and financial condition. There is also potential that geopolitical factors could adversely impact the U.S. and other economies, and specifically the automotive sector. While our diversified automotive OEM customer base and geographic revenue base, along with our flexible cost structure, have well positioned us to withstand the impact of industry downturns and benefit from industry upturns, shifts in the mix of global automotive production to higher cost regions or to vehicles with less content could adversely impact our profitability.

Volatility, weakness or slow growth in markets for hybrid electric vehicles could result in less growth in automotive sales and production by our customers than planned, which would have an adverse effect on our business, results of operations and financial condition.

Fit-for-Growth

On June 25, 2018, Gentherm announced a strategic plan intended to improve business performance and position the Company to deliver above market growth and improved profitability to its shareholders. An important element of the strategy was the Fit-for-Growth initiative that focused on purchasing excellence, rationalization of research and development activities, reducing selling, general and administrative expense, minimization or elimination of investments in non-core areas and developing a manufacturing footprint commensurate with the new plan.

During 2018, the Company initiated this strategy through the sale of its battery management systems division located in Irvine, California and the site consolidation of its advanced research and development operations which resulted in vacating two leased facilities in Azusa, California. Further, the Company exited, several product categories including furniture, aviation, battery management electronics, industrial battery packs, automotive thermoelectric generators and other non-core electronics. Additionally, the Company undertook restructuring actions to reduce global overhead costs to improve selling, general and administrative expense.

During 2019, the Company completed its plan to eliminate non-core areas of investment through the divestitures of its environmental test equipment business, Cincinnati Sub-Zero industrial chamber business ("CSZ-IC") and its remote power generation systems business, Gentherm Global Power Technologies ("GPT"). In addition, we launched a plan to optimize our manufacturing footprint and took additional actions to reduce costs through purchasing excellence and additional restructuring activities focused on reductions of selling, general and administrative expense.

The Company continues to execute the Fit-for-Growth strategy in an effort deliver market growth and improve profitability to its shareholders.

Divestitures

Divestiture of CSZ-IC

On February 1, 2019, the Company completed the divestiture of CSZ-IC and the former Cincinnati Sub-Zero headquarters facility to Weiss Technik North America, Inc. for total cash proceeds of \$47.5 million, including \$2.5 million of cash proceeds placed into an escrow account for a period of up to one year as partial security for the Company's obligations under the sale agreement. In connection with the sale, Gentherm entered into an operating lease agreement for a portion of the office and manufacturing building space purchased by Weiss Technik North America, Inc. For the year ended December 31, 2019, the Company recognized a \$4.3 million gain on sale, which is classified as Asset impairments and net loss on divestitures within the consolidated statements of income.

Divestiture of GPT

On October 1, 2019, the Company completed the divestiture of GPT for a nominal amount. For the year ended December 31, 2019, the Company recognized asset impairments and loss on sale totaling \$27.1 million, consisting of \$16.8 million of impairment on assets held for sale, \$4.5 million related to impairment of an equity investment that met held for sale criteria during 2019 and \$5.8 million of loss on sale, which includes \$4.0 million related to the release of previously deferred foreign currency translation losses recorded in accumulated other comprehensive loss and \$1.5 million related to a loan to the buyer that was considered uncollectible. These impairment charges and loss on sale are classified as Asset impairments and net loss on divestitures within the consolidated statements of income.

Acquisitions

Acquisition of Stihler Electronic GmbH ("Stihler")

On April 1, 2019, Gentherm acquired Stihler, a leading developer and manufacturer of patient and blood temperature management systems, for a purchase price of \$15.5 million, net of cash acquired and including \$0.7 million of contingent consideration to be paid upon achievement of a milestone that must be completed by September 2020. In addition, the purchase agreement includes a contingent payment of \$0.7 million to be paid if the selling shareholder remains employed by Stihler through

December 2020, which will be recorded as a component of selling, general and administrative expenses ratably over the service period. The results of operations of Stihler are reported within the Company's Industrial segment from the date of acquisition.

Acquisition of Etratech

On November 1, 2017, the Company acquired substantially all of the assets and assumed substantially all of the operating liabilities of Etratech Inc., an Ontario corporation and all of the outstanding shares of Etratech Hong Kong, an entity organized under the laws of Hong Kong, in an all-cash transaction for a purchase price of \$65.0 million, net of cash acquired of \$0.7 million. Etratech manufactures advanced electronic controls and control systems for the automotive, RV and marine, security, medical and other industries. The results of operations of Etratech are reported within the Company's Automotive segment from the date of acquisition.

Manufacturing Footprint Rationalization

On September 23, 2019, the Company committed to a restructuring plan to improve the Company's manufacturing productivity and rationalize its footprint. Under this plan, the Company will relocate and consolidate certain existing automotive manufacturing and, as a result, certain other activities, overall reducing the number of plants by two. During the year ended December 31, 2019, the Company recognized expense of \$4.9 million for employee separation costs that will be paid pursuant to the terms of statutory requirements of the affected locations. Additionally, the Company recognized \$2.1 million of accelerated depreciation and fixed asset impairment.

The Company expects to incur total costs of between \$20.0 million and \$24.0 million, of which between \$17.0 million and \$21.0 million are expected to be cash expenditures. The total expected costs include employee separation costs of between \$9.0 million and \$11.0 million, capital expenditures of between \$4.5 million and \$5.5 million and non-cash expenses for accelerated depreciation and impairment of fixed assets of \$3.0 million. The Company also expects to incur other transition costs including recruiting, relocation, and machinery and equipment move and set up costs of between \$3.5 million and \$4.5 million. The actions under this plan are expected to be substantially completed by the end of 2021. The actual timing, costs and savings of the Plan may differ materially from the Company's current expectations and estimates.

See Note 5 to our consolidated financial statements for information about our restructuring activities.

Stock Repurchase Program

In December 2016, the Board of Directors authorized a three-year, \$100.0 million stock repurchase program. In June 2018, our Board of Directors authorized an increase in the stock repurchase plan to \$300.0 million and extended the stock repurchase plan until December 2020. In 2019, we repurchased approximately \$63.3 million of shares and have a remaining repurchase authorization of approximately \$83.3 million.

For further information related to our stock repurchase program, see Item 5, "Market for the Company's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities," and Note 16, "Equity" to the consolidated financial statements included in this Report.

Reportable Segments

The Company has two reportable segments for financial reporting purposes: Automotive and Industrial. See Note 7 to the consolidated financial statements for a description of our reportable segments as well as their proportional contribution to the Company's reported product revenues and operating income. The financial information used by our chief operating decision maker to assess operating performance and allocate resources is based on these reportable segments.

Results of Operations Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

This section discusses our consolidated results of operations for the years ended December 31, 2019 versus 2018. A detailed discussion of our consolidated results of operations for the years ended December 31, 2018 compared to the year ended December 31, 2017 can be found under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation" in Part II of our Annual Report on Form 10-K for the year ended December 31, 2018, which was filed with the SEC on February 26, 2019.

The results of operations for the years ended December 31, 2019 and 2018, in thousands, were as follows:

	Year Ended December 31,		Favorable / (Unfavorable)
	2019	2018	
Product revenues	\$ 971,684	\$ 1,048,505	\$ (76,821)
Cost of sales	683,349	743,647	60,298
Gross margin	288,335	304,858	(16,523)
Operating expenses:			
Research and development expenses	91,033	98,663	7,630
Reimbursed research and development expenses	(18,557)	(18,763)	(206)
Net research and development expenses	72,476	79,900	7,424
Selling, general and administrative expenses	118,680	137,398	18,718
Restructuring expenses	12,919	14,772	1,853
Total operating expenses	204,075	232,070	27,995
Operating income	84,260	72,788	11,472
Interest expense	(4,763)	(4,942)	179
Foreign currency gain	2,326	622	1,704
Asset impairments and net loss on divestitures	(22,793)	(11,476)	(11,317)
Other income	121	1,127	(1,006)
Earnings before income tax	59,151	58,119	1,032
Income tax expense	21,645	16,220	(5,425)
Net income	\$ 37,506	\$ 41,899	\$ (4,393)

Product revenues by product category, in thousands, for the years ended December 31, 2019 and 2018 were as follows:

	Year Ended December 31,		% Change
	2019	2018	
Climate Control Seat (CCS)	\$ 359,355	\$ 373,945	(3.9)%
Seat Heaters	284,174	305,337	(6.9)%
Automotive Cables	88,031	98,931	(11.0)%
Steering Wheel Heaters	65,426	69,845	(6.3)%
Electronics	47,542	56,783	(16.3)%
Battery Thermal Management (BTM)	41,498	28,472	45.8%
Other Automotive	34,199	24,511	39.5%
Subtotal Automotive	\$ 920,225	\$ 957,824	(3.9)%
Medical	36,860	30,108	22.4%
GPT	11,181	19,520	(42.7)%
CSZ-IC	3,418	41,053	(91.7)%
Subtotal Industrial	\$ 51,459	\$ 90,681	(43.3)%
Total Company	\$ 971,684	\$ 1,048,505	(7.3)%

Product Revenues

Below is a summary of our product revenues, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,			Variance Due To:			
	2019	2018	Favorable / (Unfavorable)	Volume	FX	Pricing/Other	Total
Product revenues	\$ 971,684	\$ 1,048,505	\$ (76,821)	\$ (3,171)	\$ (19,495)	\$ (54,155)	\$ (76,821)

Product revenues for the year ended December 31, 2019 decreased 7.3% as compared to the year ended December 31, 2018. The decrease in product revenues is due to unfavorable volumes in our Automotive segment, including adverse impacts of \$12.4 million resulting from the General Motors labor strike. Product revenues were also negatively impacted by unfavorable foreign currency impacts, primarily related to the Euro, Korean Won and Chinese Renminbi. The decrease in product revenues included in Variance Due To Pricing/Other above is primarily attributable to the divestitures of CSZ-IC on February 1, 2019 and GPT on October 1, 2019, the acquisition of Stihler on April 1, 2019, as well as decreases in customer pricing.

Cost of Sales

Below is a summary of our cost of sales and gross margin, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,			Variance Due To:				
	2019	2018	Favorable / (Unfavorable)	Volume	Operational Performance	FX	Other	Total
Cost of sales	\$ 683,349	\$ 743,647	\$ 60,298	\$ 1,918	\$ 28,073	\$ 10,755	\$ 19,552	\$ 60,298
Gross margin	288,335	304,858	(16,523)	(1,253)	13,755	(8,740)	(20,285)	(16,523)
Gross margin - Percentage of product revenues	29.7%	29.1%						

Cost of sales for the year ended December 31, 2019 decreased 8.1% as compared to the year ended December 31, 2018. The decrease in cost of sales is due to volumes decreases in our Automotive segment, operational performance improvements, and favorable foreign currency impacts, primarily attributable to the Euro, Chinese Renminbi and Mexican Peso. The operational performance improvements are primarily attributable to decreases in headcount, overtime, expedited freight and material costs. The decrease in cost of sales is also due to the following items included in Variance Due To Other above:

- \$33.8 million of decrease attributable to divested businesses (CSZ-IC and GPT);
- \$6.7 million of increase due to higher labor costs in Mexico, Macedonia and China; and
- \$5.1 million of increase attributable to Medical, including impact of the acquisition of Stihler on April 1, 2019.

Net Research and Development Expenses

Below is a summary of our net research and development expenses, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Research and development expenses	\$ 91,033	\$ 98,663	\$ 7,630
Reimbursed research and development expenses	(18,557)	(18,763)	(206)
Net research and development expenses	72,476	79,900	7,424
Percentage of product revenues	7.5%	7.6%	

Net research and development expenses for the year ended December 31, 2019 decreased 9.3% as compared to the year ended December 31, 2018. The decrease in net research and development expenses is primarily related to the Company's cost reduction initiatives that were launched in the second half of 2018. These initiatives were focused on the minimization or elimination of investments in non-core areas.

Selling, General and Administrative Expenses

Below is a summary of our selling, general and administrative expenses, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Selling, general and administrative expenses	\$ 118,680	\$ 137,398	\$ 18,718
Percentage of product revenues	12.2%	13.1%	

Selling, general and administrative expenses for the year ended December 31, 2019 decreased 13.6% as compared to the year ended December 31, 2018. The decrease in selling, general and administrative expenses is primarily related to the impacts of divested businesses (CSZ-IC and GPT) and the Company's cost reduction initiatives that were launched in the second half of 2018.

Restructuring Expenses

Below is a summary of our restructuring expenses, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Restructuring expenses	\$ 12,919	\$ 14,772	\$ 1,853

Restructuring expenses in 2019 primarily relate to the Manufacturing Footprint Rationalization restructuring program and other discrete restructuring activities focused on the rotation of our manufacturing footprint to lower cost locations and the reduction of global overhead expenses. During the year ended December 31, 2019, the Company recognized expenses of \$8.1 million for employee separation costs, \$2.5 million of accelerated depreciation and asset impairment charges and \$2.4 million of other related costs.

Restructuring expenses in 2018 primarily relate to restructuring activities focused on reduction of global overhead costs and the minimization or elimination of investments in non-core areas of our business. During the year ended December 31, 2018, the Company recognized expenses of \$8.4 million for employee separation costs, \$2.5 million of accelerated depreciation and asset impairment charges and \$3.8 million of other related costs.

See Note 5, "Restructuring" of the consolidated financial statements included in this Report for additional information.

Interest Expense

Below is a summary of our interest expense, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Interest expense, net	\$ (4,763)	\$ (4,942)	\$ 179

See Note 13, "Debt" of the consolidated financial statements included in this Report for additional information.

Foreign Currency Gain

Below is a summary of our foreign currency gain, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Foreign currency gain	\$ 2,326	\$ 622	\$ 1,704

Foreign currency gain for the year ended December 31, 2019, included net realized foreign currency gain of \$56 thousand and unrealized net foreign currency gain of \$2.3 million.

Foreign currency gain for the year ended December 31, 2018, included net realized foreign currency gain of \$1.2 million and unrealized net foreign currency loss of \$0.6 million.

Asset Impairments and Net Loss on Divestitures

Below is a summary of our asset impairment and net loss on divestitures, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Asset impairments and net loss on divestitures	\$ (22,793)	\$ (11,476)	\$ (11,317)

Asset impairments and net loss on divestitures for the year ended December 31, 2019 includes the following:

- \$4.3 million of gain on sale of CSZ-IC;
- \$16.7 million of impairment loss on assets held for sale (GPT);
- \$4.5 million of impairment loss for an equity investment that was sold in connection with the GPT sale; and
- \$5.9 million of loss on sale of GPT, which includes \$4.0 million related to the release of previously deferred foreign currency translation losses recorded in accumulated other comprehensive loss.

Asset impairments and net loss on divestitures for the year ended December 31, 2018 includes the following:

- \$6.2 million of impairment of goodwill (GPT);
- \$3.1 million of impairment of intangible assets (GPT); and
- \$2.2 million of impairment loss on assets held for sale (GPT).

Other Income

Below is a summary of our other income, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Other income	\$ 121	\$ 1,127	\$ (1,006)

The decrease in other income is primarily due to a reduction of lower miscellaneous income.

Income Tax Expense

Below is a summary of our income tax expense, in thousands, for the years ended December 31, 2019 and 2018:

	Year Ended December 31,		
	2019	2018	Favorable / (Unfavorable)
Income tax expense	\$ 21,645	\$ 16,220	\$ (5,425)

Income tax expense was \$21.6 million for the year ended December 31, 2019, on earnings before income tax of \$59.2 million, representing an effective tax rate of 36.6%. The pre-tax earnings amount included the non-deductible impairment loss of \$27.1 million. Adjusted for the impairment loss, the effective tax rate was 25.1% for 2019. The effective tax rate differed from the U.S. Federal statutory rate of 21% primarily due to the international provisions of the U.S. tax reform, such as global intangible low-tax income (“GILTI”), enacted in December 2017, partly offset by certain intercompany transactions which disproportionately benefited lower tax rate jurisdictions.

Income tax expense was \$16.2 million for the year ended December 31, 2018, on earnings before income tax of \$58.1 million, representing an effective tax rate of 27.9%. The pre-tax earnings amount included the non-deductible impairment loss of \$11.5 million. Adjusted for the impairment loss, the effective tax rate was 23.3% for 2018. The effective tax rate differed from the U.S. Federal statutory rate of 21% primarily due to the international provisions of the U.S. tax reform, such as global intangible low-tax income (“GILTI”), enacted in December 2017, partly offset by certain intercompany transactions which disproportionately benefited lower tax rate jurisdictions.

Cash and Cash Flows

The Company has funded its financial needs primarily through cash flows from operating activities and equity and debt financings. Our ongoing strategic plan sets forth a capital allocation strategy that includes a targeted debt-to-earnings leverage ratio and allows for some of our cash flow to be paid back to investors through Common Stock repurchases. On June 25, 2018, our Board of Directors increased the Company's stock repurchase authorization to \$300.0 million, of which \$83.3 million of availability remained as of December 31, 2019. This authorization expires on December 16, 2020. Based on its current operating plan, management believes cash and cash equivalents at December 31, 2019, together with cash flows from operating activities, and borrowing available under our Amended Credit Agreement, are sufficient to meet operating and capital expenditure needs, and to service debt, for at least the next 12 months. However, if cash flows from operations decline, we may need to obtain alternative sources of capital and reduce or delay capital expenditures, acquisitions and investments, all of which could impede the implementation of our business strategy and adversely affect our results of operations and financial condition. In addition, it is likely that we will need to complete one or more equity or debt financings if we consummate any significant acquisition or several smaller acquisitions. There can be no assurance that such capital will be available at all or on reasonable terms, which could adversely affect our future operations and business strategy.

The following table represents our cash and cash equivalents and short-term investments, in thousands:

	December 31,	
	2019	2018
Cash and cash equivalents at beginning of period	\$ 39,620	\$ 103,172
Cash provided by operating activities	118,803	118,434
Cash provided by (used in) investing activities	5,840	(40,757)
Cash used in financing activities	(108,593)	(139,266)
Foreign currency effect on cash and cash equivalents	(2,722)	(1,963)
Cash and cash equivalents at end of period	<u>\$ 52,948</u>	<u>\$ 39,620</u>

Cash Flows From Operating Activities

We manage our cash, cash equivalents and short-term investments to fund operating requirements and preserve liquidity to take advantage of future business opportunities. The following table compares the cash flows from operating activities earned during 2019 with those earned in 2018, in thousands:

	Year Ended December 31,		
	2019	2018	Change
Operating Activities:			
Net income	\$ 37,506	\$ 41,899	\$ (4,393)
Non-cash adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	44,246	50,638	(6,392)
Deferred income taxes	3,617	6,699	(3,082)
Stock compensation	6,253	9,047	(2,794)
Defined benefit pension plan (expense)/income	(570)	82	(652)
Provision for doubtful accounts	353	(1)	354
Loss on sale of property and equipment	462	2,602	(2,140)
Operating lease expense	6,173	—	6,173
Asset impairments and net loss on divestitures	22,793	11,476	11,317
Other	1,612	—	1,612
Net income before non-cash adjustments	<u>122,445</u>	<u>122,442</u>	<u>3</u>
Changes in operating assets and liabilities:			
Accounts receivable	6,801	3,024	3,777
Inventory	(3,859)	(7,689)	3,830
Other current assets	7,996	(4,428)	12,424
Accounts payable	(10,253)	12,380	(22,633)
Accrued liabilities	(4,327)	(7,295)	2,968
Net cash provided by operating activities	<u>\$ 118,803</u>	<u>\$ 118,434</u>	<u>\$ 369</u>

The following table highlights significant differences between the operating cash flows for the periods ending December 31, 2019 and 2018, respectively:

Net cash provided by operating activities during 2018	\$	118,434
Higher net income before changes in operating assets and liabilities		2
Changes in working capital, net		7,230
Changes in other assets and liabilities		(6,863)
Net cash provided by operating activities during 2019	\$	<u>118,803</u>

Net cash provided by operating activities before changes in operating assets and liabilities decreased during 2019 due to lower revenues partially offset by higher cash based operating expenses and impairment losses. Additionally, working capital, net provided favorable cash flows related to accounts receivable, prepaid expenses and other assets and accrued liabilities, and unfavorable amounts related to inventory and accounts payable.

Working Capital

The following table illustrates changes in working capital during 2019, in thousands:

Working capital at December 31, 2018	\$	267,679
Increase in cash and cash equivalents		10,525
Decrease in accounts receivable		(6,662)
Increase in inventory		4,721
Decrease in tax receivables, net		(8,609)
Increase in other current assets		135
Decrease in payables		9,725
Increase in accrued expenses and other liabilities		(6,589)
Additional impairment on held for sale assets		(14,701)
Decrease in working capital from sale of business		(42,603)
Increase in working capital from acquisition of new company		5,203
Foreign currency effect on working capital		(1,665)
Working capital at December 31, 2019	\$	<u>217,159</u>

The following table highlights significant transactions that contributed to the increase in cash experienced during the year ended December 31, 2019, in thousands:

Net cash provided by operating activities	\$	118,803
Purchases of property and equipment		(23,729)
Repayment of debt		(96,999)
Borrowings from U.S. Revolving Note		37,812
Stock repurchases		(63,283)
Proceeds from the exercise of Common Stock options		16,557
Proceeds from divestitures of businesses, net		44,173
Acquisition of business, net of cash acquired		(14,823)
Other items		(5,183)
Increase in cash, cash equivalents and restricted cash	\$	<u>13,328</u>

The changes in current assets and liabilities reflects the classification of GPT and CSZ-IC (disposal group) as held for sale during 2018. All assets and liabilities of the disposal group were classified as held for sale within current assets and current liabilities, respectively, on the Company's consolidated balance sheet for the year ended December 31, 2018. See Note 4 to our consolidated financial statement for additional information about the assets and liabilities classified as held for sale.

Cash Flows From Investing Activities

Cash provided by investing activities was \$5.8 million during 2019, reflecting cash proceeds of \$47.5 million related to the sale of CSZ-IC, partially offset by the acquisition of Stihler for \$14.8 million and purchases of property and equipment related to the expansion of production capacity totaling \$23.7 million.

Cash Flows From Financing Activities

Cash used in financing activities was \$108.6 million during 2019, reflecting payments of principal on the U.S. Revolving Note, the DEG China Loan and the DEG Vietnam Loan totaling \$97.0 million in aggregate, partially offset by additional borrowings on the U.S. Revolving Note totaling \$37.8 million. Undrawn borrowing capacity under the U.S. Revolving Note was \$403.4 million as of December 31, 2019. Cash was also paid during 2019 to repurchase Common Stock totaling \$63.3 million, and for cancellations of restricted stock awards totaling \$1.4 million.

Debt

Amended Credit Agreement

As of December 31, 2018, the Company, together with certain direct and indirect subsidiaries, had a credit agreement (the “Credit Agreement”) which included a revolving credit note (“U.S. Revolving Note”) with a maximum borrowing capacity of \$350.0 million.

On June 27, 2019, the Company entered into an Amended and Restated Credit Agreement (the “Amended Credit Agreement”) with a consortium of lenders and Bank of America, N.A. as administrative agent. The Amended Credit Agreement amended and restated in its entirety the Credit Agreement. The outstanding principal and interest of the U.S. Revolving Note under the Credit Agreement continued and constitute obligations under the Amended Credit Agreement.

The Amended Credit Agreement increased the U.S. Revolving Note from \$350.0 million to \$475.0 million and extended the maturity from March 17, 2021 to June 27, 2024. Subject to specified conditions, the Company can increase the U.S. Revolving Note or incur secured term loans in an aggregate amount of \$175.0 million. The Amended Credit Agreement also provides \$15.0 million availability for the issuance of letters of credit and a maximum of \$40.0 million for swing line borrowing. Any amount of the facility utilized for letters of credit or swing line loans outstanding will reduce the amount available under the Amended Credit Agreement. The Company had \$0 and \$0.5 million of outstanding letters of credit issued under the Amended Credit Agreement as of December 31, 2019 and 2018, respectively.

The U.S. borrowers and guarantors participating in the Amended Credit Agreement have entered into a related amended and restated pledge and security agreement. The amended and restated pledge and security agreement grants a security interest to the lenders in substantially all of the personal property of the Company and its U.S. subsidiaries designated as borrowers to secure their respective obligations under the Amended Credit Agreement, including the stock and membership interests of specified subsidiaries (limited to 66% of the stock in the case of certain non-U.S. subsidiaries). In addition to the security obligations, all obligations under the Amended Credit Agreement are unconditionally guaranteed by certain of the Company’s subsidiaries. The Amended Credit Agreement restricts, among other things, the amount of dividend payments the Company can make to shareholders.

The Amended Credit Agreement contains customary affirmative and negative covenants that will prohibit or limit the ability of the Borrowers and any material subsidiary to, among other things, incur additional indebtedness, create liens, pay dividends, make certain types of investments (including acquisitions), enter into certain types of transactions with affiliates, prepay other indebtedness, sell assets, merge with other companies or enter into certain other transactions outside the ordinary course of business requires the Company and its subsidiaries to comply with customary affirmative and negative covenants, and contain customary events of default. These restrictions on the Company’s material subsidiaries have not had and are not expected to have a material impact on the Company’s ability to meet its cash obligations. The Amended Credit Agreement also requires the Company to maintain a minimum Consolidated Interest Coverage Ratio and Consolidated Leverage Ratio, as defined in the agreement.

Under the Amended Credit Agreement, U.S. Dollar denominated loans bear interest at either a base rate (“Base Rate Loans”) or Eurocurrency rate (“Eurocurrency Rate Loans”), plus a margin (“Applicable Rate”). The rate for Base Rate Loans is equal to the highest of the Federal Funds Rate (1.55% at December 31, 2019) plus 0.50%, Bank of America’s prime rate (4.75% at December 31, 2019), or the Eurocurrency rate plus 1.00%. The rate for Eurocurrency Rate Loans denominated in U.S. Dollars is equal to the London Interbank Offered Rate (1.76% at December 31, 2019). All loans denominated in a currency other than the U.S. Dollar must be Eurocurrency Rate Loans. Interest is payable at least quarterly.

The Applicable Rate varies based on the Consolidated Leverage Ratio reported by the Company. As long as the Company is not in default of the terms and conditions of the Amended Credit Agreement, the lowest and highest possible Applicable Rate is 1.25% and 2.25%, respectively, for Eurocurrency Rate Loans and 0.25% and 1.25%, respectively, for Base Rate Loans.

DEG Vietnam Loan

The Company also has a fixed interest rate loan with the German Investment Corporation (“DEG”), a subsidiary of KfW Banking Group, a Germany government-owned development bank. The fixed interest rate senior loan agreement with DEG was used to finance the construction and set up of the Vietnam production facility (“DEG Vietnam Loan”). The DEG Vietnam Loan is subject to semi-annual principal payments that began November 2017 and will end May 2023. Under the terms of the DEG Vietnam Loan, the Company must maintain a minimum Equity Ratio and Enhanced Equity Ratio, as defined by the DEG Vietnam Loan agreement, based on the financial statements of Gentherm’s wholly owned subsidiary, Gentherm Vietnam Co. Ltd.

DEG China Loan

The Company had a second DEG loan, which was used to fund capital investments in China (the “DEG China Loan”). The DEG China Loan was subject to semi-annual principal payments that began March 2015 and ended in September 2019. During the third quarter of 2019, the DEG China Loan was paid in full.

The following table summarizes the Company’s debt at December 31, 2019 (dollars in thousands).

	December 31, 2019	
	Interest Rate	Principal Balance
Amended Credit Agreement:		
U.S. Revolving Note (U.S. Dollar Denominations)	3.05%	\$ 50,000
U.S. Revolving Note (Euro Denominations)	1.25%	21,874
DEG Vietnam Loan	5.21%	8,750
DEG China Loan	—	—
Total debt		80,624
Current maturities		(2,500)
Long-term debt, less current maturities		<u>\$ 78,124</u>

As of December 31, 2019, we were in compliance with all terms as outlined in the Amended Credit Agreement and DEG Vietnam Loan. Undrawn borrowing capacity under the U.S. Revolving Note was \$403.4 million as of December 31, 2019.

Critical Accounting Policies

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amount of assets and liabilities, revenues and expenses, and related disclosures at the date of our financial statements. Actual results may differ from these estimates under different assumptions or conditions. These estimates and assumptions include, but are not limited to:

- Product revenues;
- Impairments of goodwill and other intangible assets;
- Accrued warranty costs;
- Litigation reserves;
- Allowances for doubtful accounts;
- Inventory reserves;
- Income taxes;
- Stock compensation; and
- Pension plans

Revenue Recognition

Revenue is recognized from agreements containing enforceable rights and obligations, when promised goods are delivered or services are completed. Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer, are excluded from revenue. Shipping and handling fees billed to customers are included in net sales, while costs of shipping and handling are included in cost of sale.

Automotive Revenues

The Company provides production parts to its customers under long-term supply agreements (“LTAs”). The duration of an LTA is generally consistent with the life cycle of a vehicle, however, an LTA does not reach the level of a performance obligation until Gentherm receives either a purchase order and/or a materials release from the customer for a specific number of parts at a specified price, at which point an enforceable contract exists. Revenue is recognized when control of the parts has transferred to the customer

according to the terms of the contract, which typically occurs when the parts are shipped or delivered to the customer's premises. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring parts.

Certain LTAs provide for annual price reductions over the production life of the vehicle. Agreements that are determined to provide customers with purchase option discounts that would not be received without entering into the contract are considered to contain a material right (for example, a discount given to a customer that is incremental to the range of discounts typically given to that class of customer). The material right represents a purchase option that provides the customer with the ability to purchase additional production parts at a set price in the future and is accounted for as a separate performance obligation. Under these circumstances, each transfer of production parts under the LTA requires allocation of the purchase price to the production part and the purchase option. As a practical alternative to estimating the standalone selling price of an option, the Company allocates transaction price to the purchase option by reference to the production part volumes expected to be ordered and the consideration expected to be received over the life of the vehicle program.

The production part's relative standalone selling price observed under the LTA is subtracted from the total amount of consideration expected to be received in exchange for transferring of parts under the current contract and the difference is allocated to the purchase option. Revenue from options containing a material right is recognized when the amounts billed by the customer for production parts transferred, under the LTA, is less than the standalone selling price of those production parts.

Medical Revenues

Revenues from our patient temperature management business unit are generated from the sale of products and equipment. Our medical products and equipment focus on body and blood temperature management. The Company sells medical products and equipment primarily through distributor and group purchasing organization agreements. These agreements allow member participants to the distributor or group purchasing organization to make purchases at discounted prices negotiated by the distributor or group purchasing organization. A rebate is incurred at the point in time a member participant purchases product covered under these types of agreements. Rebates are accounted for as variable consideration, using an expected value, probability weighted approach, based on the level of sales to the distributor and the time lag between the initial sale and the rebate claim in determining the transaction price of a contract. Revenue is recognized at the point in time the medical products or equipment is transferred to the customer.

GPT and CSZ-IC Revenues

Revenues from our divested businesses, GPT and CSZ-IC, were generated from the sale of products and services. GPT and CSZ-IC customers commonly entered into multiple-element agreements for the purchase of products and services. Installation services, for example, were separate and distinct performance obligations that were often included in contracts to purchase customized environmental test chambers. Depending on the application, delivery of an environmental test chamber or remote power generation system to the customer's place of business could range from two weeks to nine months from commencement of the contract. Installation services, while reliant on the specifications and timing from the customer, rarely remained incomplete more than two months after delivery.

Revenues allocated to environmental test chambers or remote power systems were based on the stand-alone selling price of the products themselves. Judgement was used to determine the degree to which early pay discounts and other credits were utilized in the calculation of standalone selling price, and only included to the extent it was probable that a significant reversal of any incremental revenue would not occur. Revenues were recognized at the point in time the chamber or power system was shipped to the customer. For contracts that also included a promise for installation, the portion of total transaction price allocated to the installation was recognized as revenue at the point in time the installation is complete.

GPT and CSZ-IC often required milestone payments for contracts to provide environmental test chambers or remote power systems to customers. Milestone payments did not provide the Company with a right to payment for the work completed to date and did not represent the satisfaction of a performance obligation. Milestone payments were deferred and reported within unearned revenue until construction was complete and the unit had been delivered or was installed. If the environmental test chamber contract included a separate promise to provide installation services, any installation-related payments received from the customer were deferred until the point in time the installation was complete.

Impairments of Goodwill and Other Intangible Assets

Whenever events or changes in circumstances indicate that it is more likely than not that a reporting unit's fair value is less than its carrying amount, the Company then compares the fair value of the reporting unit to the related net book value. If the net book value of a reporting unit exceeds its fair value, an impairment loss is measured and recognized. The fair value of a reporting unit is estimated by analyzing internal inputs (level 3) to calculate forward values and discounting those values to the present value.

Accrued Warranty Costs

The Company accrues warranty obligations for products sold based on management estimates of future failure rates and current claim cost experience, with support from the sales, engineering, quality and legal functions. While we believe our warranty reserve is adequate and that the judgment applied is appropriate, such estimates could differ materially from what will actually transpire in the future. The warranty policy is reviewed by management annually. Using historical information available to the Company, including claims already filed by customers, the warranty accrual is adjusted quarterly to reflect management's best estimate of future claims.

Litigation Reserves

We record estimated future costs related to new or ongoing litigation based on input from legal counsel and our best estimate of probable loss. These estimates include costs associated with attorney fees and potential claims and assessments less any amounts we anticipate are recoverable under insurance policies. Final resolution of the litigation contingencies could result in amounts different from current accruals and, therefore, have an impact on our consolidated financial results in future reporting periods.

Accounts Receivable

Accounts receivable are stated at the invoiced amount, less allowance for doubtful accounts for estimated amounts not expected to be collected, and do not bear interest. We record an allowance for doubtful accounts once exposure to collection risk of an account receivable is specifically identified. We analyze the length of time an account receivable is outstanding, as well as a customer's payment history and ability to pay to determine the need to record an allowance for doubtful accounts. We write-off accounts receivable when they become uncollectible.

Inventory Reserves

We recognize a reserve for obsolete and slow-moving inventories based on estimates of future sales and an inventory item's capacity to be repurposed for a different use. We consider the number of months supply on hand based on current planned requirements, uncommitted future projections and historical usage in estimating the inventory reserve. Additional provisions are made for supplier claims for obsolete materials, prototype inventory, spare or customer service inventory and, for all periods other than at year-end, estimates for physical inventory adjustments.

Income Taxes

We record income tax expense using the liability method which specifies that deferred tax assets and liabilities be measured each year based on the difference between the financial statement and tax bases of assets and liabilities at the applicable enacted tax rates. A valuation allowance is provided for deferred tax assets when management considers it more likely than not that the asset will not be realized. If future annual taxable income were to be significantly less than current and projected levels, there is a risk that certain of our deferred tax assets not already provided for by the valuation allowance would expire prior to utilization.

We recognize the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more-likely-than-not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement with the relevant tax authority. We recognize interest and penalties related to income tax matters in income tax expense.

Stock Based Compensation

We account for grants of employee stock options, time-based restricted stock units and restricted stock as compensation expense based upon the fair value on the date of grant and such expense is recognized over the vesting condition, either based on a period of service or based on the performance of a specific achievement. For option awards measured at fair value, the fair value is determined

using the Black-Scholes option pricing model. The Black-Scholes option pricing model incorporates certain assumptions, such as expected volatility, expected life of options, risk-free interest rate and expected dividend yield, in order to arrive at a fair value estimate. Expected volatilities are based on the average of the historical volatility of the Company's Common Stock and that of an index of companies in our industry group. To evaluate our assumptions for the expected lives of options, we consider the average holding period of previously exercised options and the remaining terms of outstanding options. The risk-free interest rate is based upon quoted market yields for United States Treasury debt securities. The expected dividend yield is based upon the Company's history of having never issued a dividend, the limitations to issue a dividend under the Amended Credit Agreement and management's current expectation regarding future dividends. We believe that the assumptions selected by management are reasonable; however, significant changes could materially impact the results of the calculation of fair value.

We also have granted restricted stock units measured based on either a target return on invested capital ratio ("ROIC"), as defined in the award agreement, for a specified fiscal year, or the Company's common stock market price returning a target total shareholder return ("TSR"), as defined, during a specific three-year measurement period. Upon achievement of the performance measurement, performance-based restricted stock units ("PSUs") vest over a three-year period. Under FASB ASC Topic 718, the provisions of the PSUs that vest upon the achievement of relative TSR are considered a market condition, and therefore the effect of that market condition is reflected in the grant date fair value for this portion award. A third party was engaged to complete a "Monte Carlo simulation" to account for the market condition. That simulation takes into account the beginning stock price of our common stock, the expected volatilities for the TSR comparator group, the expected volatilities for the Company's stock price, correlation coefficients, the expected risk-free rate of return and the expected dividend yield of the Company and the comparator group. The single grant-date fair value computed by this valuation method is recognized by the Company in accounting for the awards regardless of the actual future outcome of the relative TSR feature. The grant date fair value of the other PSUs and RSUs are calculated as the closing price of our common stock as quoted on Nasdaq on the grant date multiplied by the number of shares subject to the award. ROIC is considered a performance condition and the grant-date fair value for ROIC PSUs corresponds with management's expectation of the probable outcome of the performance condition as of the grant date.

Stock appreciation rights ("SARs") are also an award type granted under our management incentive program and they are accounted for using the liability method since they are settled in cash, which requires mark-to-market adjustments based on the current trading price of Gentherm Common Stock to be recognized in statements of income.

Pension Plans

The Company's obligations and expenses for its pension plans are substantially dependent on the Company's selection of discount rate and, for the Gentherm GmbH Plan, expected long-term rate of return on plan assets assumptions used by actuaries to calculate these amounts. Actual results that differ from assumptions used are accumulated and amortized over future periods and generally affect recognized expense in future periods. As such, assumptions used to calculate benefit obligations as of the annual measurement date directly impact the expense to be recognized in future periods.

Recent Accounting Pronouncements

For a complete description of recent accounting standards which we have not yet been required to implement which may be applicable to our operations, as well as significant accounting standards that have been adopted during the year ended December 31, 2019, see Note 3, "New Accounting Pronouncements" to the consolidated financial statements included in this Report.

Off-Balance Sheet Arrangements

At December 31, 2019, we do not have any off-balance sheet arrangements that have, or are, in the opinion of management, reasonably likely to have, a current or future material effect on our financial condition or results of operations.

Effects of Inflation

The automotive component supply industry is subject to inflationary pressures with respect to raw materials and labor, which have historically placed operational and financial burdens on the entire supply chain. Accordingly, the Company continues to take actions with its customers and suppliers to mitigate the impact of these inflationary pressures in the future. Actions to mitigate inflationary pressures with customers include collaboration on alternative product designs and material specifications, contractual price escalation clauses and negotiated customer recoveries. Actions to mitigate inflationary pressures with suppliers include aggregation of purchase requirements to achieve optimal volume benefits, negotiation of cost-reductions and identification of more cost competitive suppliers. While these actions are designed to offset the impact of inflationary pressures, the Company cannot provide assurance that it will be successful in fully offsetting increased costs resulting from inflationary pressure.

Contractual Obligations and Commitments

The following table summarizes our expected cash outflows resulting from financial contracts and commitments as of December 31, 2019. We have not included information on our recurring purchases of materials for use in our manufacturing operations. These amounts are generally consistent from year to year, closely reflect our levels of production and are not long-term in nature.

Contractual Obligations (in thousands)	Payments Due by Period				
	Total	2020	2021 & 2022	2023 & 2024	Thereafter
Long-term debt obligations (1)	\$ 80,624	\$ 2,500	\$ 5,000	\$ 73,124	—
Purchase commitments	7,406	6,974	432	—	—
Total	<u>\$ 88,030</u>	<u>\$ 9,474</u>	<u>\$ 5,432</u>	<u>\$ 73,124</u>	<u>\$ —</u>

(1) Long-Term Debt Obligations do not include an amount payable for interest.

The Company does not have any outstanding capital lease agreements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk for changes in interest rates relates primarily to our debt obligations and foreign currency contracts. We have in the past, and may in the future, place our investments in bank certificates of deposits, debt instruments of the U. S. government, and in high-quality corporate issuers.

We are exposed to market risk from changes in foreign currency exchange rates, short-term interest rates and price fluctuations of certain material commodities. Market risks for changes in interest rates relate primarily to our debt obligations under our Amended Credit Agreement. Foreign currency exchange risks are attributable to sales to foreign customers and purchases from foreign suppliers not denominated in a location's functional currency, foreign plant operations, intercompany indebtedness, intercompany investments and include exposures to the Euro, Mexican Peso, Canadian Dollar, Hungarian Forint, Macedonian Denar, Ukrainian Hryvnia, Japanese Yen, Chinese Renminbi, Korean Won and Vietnamese Dong.

The Company regularly enters into derivative contracts with the objective of managing its financial and operational exposure arising from these risks by offsetting gains and losses on the underlying exposures with gains and losses on the financial instruments used to hedge them. The maximum length of time over which we hedge our exposure to foreign currency exchange risks is one year. We had foreign currency derivative contracts with a notional value of \$14.4 million and \$33.3 million outstanding at December 31, 2019 and 2018, respectively.

We do not enter into derivative financial instruments for speculative or trading purposes. Our hedging relationships are formally documented at the inception of the hedge, and hedges must be highly effective in offsetting changes to future cash flows on hedged transactions both at the inception of a hedge and on an ongoing basis to be designated for hedge accounting treatment. For derivative contracts which can be classified as a cash flow hedge, the effective portion of the change in the fair value of the derivative is recorded to accumulated other comprehensive loss in the consolidated balance sheet. When the underlying hedge transaction is realized, the gain or loss included in accumulated other comprehensive loss is recorded in earnings in the consolidated statements of income on the same line as the gain or loss on the hedged item attributable to the hedged risk. We record the ineffective portion of foreign currency hedging instruments, if any, to foreign currency gain (loss) in the consolidated statements of income. Though we continuously monitor the hedging program, derivative positions and hedging strategies, foreign currency forward exchange agreements have not always been designated as hedging instruments for accounting purposes.

The Company uses an income approach to value derivative instruments, analyzing quoted market prices to calculate the forward values and then discounts such forward values to the present value using benchmark rates at commonly quoted intervals for the instrument's full term.

Information related to the fair values of derivative instruments in our consolidated balance sheet as of December 31, 2019 is as follows (in thousands):

	Hedge Designation	Fair Value Hierarchy	Asset Derivatives		Liability Derivatives		Net Asset/ (Liabilities)
			Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	
Foreign currency derivatives	Cash flow hedge	Level 2	Current assets	\$ 1,242	Current liabilities	\$ —	\$ 1,242

Information related to the fair values of derivative instruments in our consolidated balance sheet as of December 31, 2018 is as follows (in thousands):

	Hedge Designation	Fair Value Hierarchy	Asset Derivatives		Liability Derivatives		Net Asset/ (Liabilities)
			Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	
Foreign currency derivatives	Cash flow hedge	Level 2	Current assets	\$ 92	Current liabilities	\$ —	\$ 92

Information related to the effect of derivative instruments on our consolidated statements of income and statements of comprehensive income is as follows (in thousands):

	Location	Year Ended December 31,	
		2019	2018
Foreign currency derivatives	Cost of sales	\$ 1,976	\$ (444)
	Selling, general and administrative	—	75
	Other comprehensive income	1,151	1,096
	Foreign currency gain (loss)	(46)	50
Total foreign currency derivatives		<u>3,081</u>	<u>777</u>
Commodity derivatives	Cost of sales	—	145
	Other comprehensive income	—	(218)
Total commodity derivatives		<u>\$ —</u>	<u>\$ (73)</u>

Interest Rate Sensitivity

The table presents principal cash flows and related weighted average interest rates by expected maturity dates for each of the Company's debt obligations. The information is presented in U.S. dollar equivalents, which is the Company's reporting currency. The instruments actual cash flows are denominated in U.S. dollars (\$USD) or European Euros (€EUR), as indicated in parentheses.

	Expected Maturity Date						Total	Fair Value
	2020	2021	2022	2023	2024	2025		
(In thousands, except rate information)								
Liabilities								
Long Term Debt:								
Variable Rate (€EUR)	\$ —	\$ —	\$ —	\$ —	\$ 21,874	\$ —	\$ 21,874	\$ 21,874
Variable Interest Rate as of December 31, 2019					1.25%		1.25%	
Variable Rate (\$USD)	\$ —	\$ —	\$ —	\$ —	\$ 50,000	\$ —	\$ 50,000	\$ 50,000
Variable Interest Rate as of December 31, 2019					3.05%		3.05%	
Fixed Rate (\$USD)	\$ 2,500	\$ 2,500	\$ 2,500	\$ 1,250	\$ —	\$ —	\$ 8,750	\$ 8,785
Fixed Interest Rate	5.21%	5.21%	5.21%	5.21%			5.21%	

Exchange Rate Sensitivity

The table below provides information about the Company's foreign currency forward exchange rate agreements that are sensitive to changes in foreign currency exchange rates. The table presents the notional amounts and weighted average exchange rates by expected (contractual) maturity dates for each type of foreign currency forward exchange agreement. These notional amounts generally are used to calculate the contractual payments to be exchanged under the contract.

Anticipated Transactions And Related Derivatives	Expected Maturity or Transaction Date		Fair Value
	2020	Total	
(In thousands, except rate information)			
\$U.S. functional currency			
Forward Exchange Agreements:			
(Receive MXN/Pay USD\$)			
Total Contract Amount	\$ 14,449	\$ 14,449	\$ 1,242
Average Contract Rate	20.76	20.76	

Unaudited Quarterly Financial Data
For the Years Ended December 31, 2019 and 2018
(In thousands, except per share data)

	Three Months Ended,			
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
Product revenues	\$ 257,921	\$ 243,326	\$ 240,056	\$ 230,381
Gross margin	75,307	72,714	74,692	65,622
Operating income	21,845	20,057	20,329	22,029
Net income	8,414	2,751	15,887	10,454
Basic earnings per share	\$ 0.25	\$ 0.08	\$ 0.48	\$ 0.32
Diluted earnings per share	\$ 0.25	\$ 0.08	\$ 0.48	\$ 0.32

	Three Months Ended,			
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
Product revenues (a)	\$ 264,586	\$ 266,400	\$ 261,504	\$ 256,015
Gross margin	81,242	77,092	75,704	\$ 70,820
Operating income	20,649	15,593	15,713	20,833
Net income (loss)	12,966	16,659	(355)	12,629
Basic earnings (loss) per share	\$ 0.35	\$ 0.46	\$ (0.01)	\$ 0.37
Diluted earnings (loss) per share	\$ 0.35	\$ 0.45	\$ (0.01)	\$ 0.36

a) Product revenues for 2018 have been adjusted to conform with the current year presentation, related to a reclassification of customer relationship amortization from product revenues to selling, general and administrative expenses. See Note 2, "Significant Accounting Policies" to the consolidated financial statements included in this Report for further details regarding these adjustments.

The sum of the quarterly amounts shown above may not be the same as the annual totals shown in our consolidated financial statements or elsewhere in this report due to rounding. The audited consolidated financial statements and related financial information required to be filed hereunder are indexed on page F-1 of this report and are incorporated herein by reference.

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

Management of the Company, under the supervision and with the participation of the Chief Executive Officer and the Chief Financial Officer, carried out an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of December 31, 2019. As defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (as amended, the "Exchange Act"), disclosure controls and procedures are controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported on a timely basis, and that such information is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Based upon this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures were effective as of December 31, 2019.

Management's Report on Internal Control Over Financial Reporting

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 the Company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Under the supervision and with the participation of the Chief Executive Officer and Chief Financial Officer, management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019 based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control-Integrated Framework (2013)." Based on that evaluation, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2019.

In April 2019, the Company completed the acquisition of Stihler Electronic GmbH. ("Stihler") and is currently integrating Stihler into its operations, compliance programs and internal control processes. Stihler constituted approximately 2% of the Company's total assets as of December 31, 2019, including the goodwill and other intangible assets recorded as part of the purchase price allocation, and less than 1% of the Company's product revenues for the year ended December 31, 2019. SEC rules and regulations allow companies to exclude acquisitions from their assessment of internal control over financial reporting during the first year following an acquisition. The Company has excluded the acquired operations of Stihler from its assessment of the Company's internal control over financial reporting.

The attestation report of the Company's independent registered public accounting firm, regarding the effectiveness of the Company's internal control over financial reporting, is set forth in Item 15, "Exhibits and Financial Statement Schedules," included under the caption "Report of Independent Registered Public Accounting Firm".

Changes in Internal Control Over Financial Reporting

There were no changes in the Company's internal control over financial reporting, that occurred during the quarter ended December 31, 2019, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including the Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well-designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected.

ITEM 9B. OTHER INFORMATION

None.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item is set forth under the following captions in our proxy statement to be filed with respect to the 2020 annual meeting of shareholders (the "Proxy Statement"), all of which is incorporated herein by reference: "Proposal No. 1 – Election of Directors", "Board Matters – The Board of Directors", "Board Matters – Committees of the Board", "Board Matters – Corporate Governance", "Executive Officers", "Additional Information – Delinquent Section 16(a) Reports" and "Additional Information – Requirements for Submission of Shareholder Proposals and Nominations for 2021 Annual Meeting."

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this item set forth under the following captions in our Proxy Statement, all of which is incorporated herein by reference: "Compensation Discussion and Analysis", "Named Executive Officer Compensation Tables", "Board Matters – Director Compensation" and "Compensation Committee Report."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required by this item is set forth under the following captions in our Proxy Statement, all of which is incorporated herein by reference: "Additional Information – Equity Compensation Plans" and "Security Ownership of Certain Beneficial Owners and Management."

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information required by this item is set forth under the following captions in our Proxy Statement, all of which is incorporated herein by reference: "Related Person Transactions" and "Proposal No. 1 – Election of Directors – Director Independence."

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The information required by this item is set forth under the following captions in our Proxy Statement, all of which is incorporated herein by reference: "Audit Committee Matters."

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The following documents are filed as part of this Report:

1. Financial Statements.

The following financial statements of the Company and reports of independent accountants are included in Item 15 of this Annual Report:

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Reports of Independent Registered Public Accounting Firm.	F-2
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2. Financial Statement Schedule.

The following Schedule to Financial Statements is included herein:

Schedule II — Valuation and Qualifying Accounts.

The exhibits to this Report are as follows:

Exhibit Number	Exhibit Description	Filed/Furnished Herewith	Incorporated by Reference			
			Form	Period Ending	Exhibit / Appendix Number	Filing Date
2**	Share and Asset Purchase Agreement, dated as of November 1, 2017, by and among Gentherm Incorporated, certain of its subsidiaries, Etratech Inc., Etratech Enterprises Inc., and certain subsidiaries and all of the shareholders of Etratech Enterprises Inc.		8-K		2.1	11/1/17
3.1	Second Amended and Restated Articles of Incorporation of Gentherm Incorporated		8-K		3.2	3/5/18
3.2	Amended and Restated Bylaws of Gentherm Incorporated		8-K		3.1	5/26/16
4	Description of Securities	X				
10.1*	Summary of Non-Employee Director Compensation		10-K	12/31/18	10.1	2/26/19
10.2*	Amended and Restated Gentherm Incorporated 2019 Senior Level Performance Bonus Plan		10-K	12/31/18	10.2	2/26/19
10.3.1*	2006 Equity Incentive Plan		Schedule 14A		A	4/24/06
10.3.2*	First Amendment to 2006 Equity Incentive Plan		10-K	12/31/06	10.3.2	2/20/07
10.3.3*	Second Amendment to 2006 Equity Incentive Plan		8-K		10.1	3/20/07
10.3.4*	Third Amendment to 2006 Equity Incentive Plan		Schedule 14A		B	4/20/09
10.3.5*	Fourth Amendment to 2006 Equity Incentive Plan		8-K		10.8	3/31/11
10.3.6*	Fifth Amendment to 2006 Equity Incentive Plan		10-K	12/31/11	10.3.6	3/15/12
10.3.7*	Sixth Amendment to 2006 Equity Incentive Plan		8-K		10.2	5/20/13
10.4.1*	2011 Equity Incentive Plan		Schedule 14A		A	5/20/11
10.4.2*	First Amendment to 2011 Equity Incentive Plan		10-K	12/31/11	10.3.8	3/15/12
10.4.3*	Second Amendment to 2011 Equity Incentive Plan		8-K		10.3	5/11/12
10.4.4*	Third Amendment to 2011 Equity Incentive Plan		8-K		10.3	5/20/13
10.5.1*	2013 Equity Incentive Plan		Schedule 14A		A	4/22/13
10.5.2*	Amendment to the Gentherm Incorporated 2013 Equity Incentive Plan		8-K		10.2	5/19/17
10.5.3*	Form of Stock Option Award Agreement under the 2013 Equity Incentive Plan		8-K		10.1	6/27/13
10.5.4*	Form of Stock Appreciation Right Award Agreement under the 2013 Equity Incentive Plan		8-K		10.2	6/27/13
10.5.5*	Form of Restricted Stock Award Agreement under the 2013 Equity Incentive Plan		8-K		10.3	6/27/13
10.5.6*	Form of Restricted Stock Award Agreement (Retention Award) under the 2013 Equity Incentive Plan		8-K		10.1	10/4/17
10.5.7*	Form of Restricted Stock Unit Award Agreement (Performance-Based) under the 2013 Equity Incentive Plan		8-K		10.1	6/13/18
10.5.8*	Form of Restricted Stock Unit Award Agreement (Time-Based) under the 2013 Equity Incentive Plan		8-K		10.2	6/13/18
10.5.9*	Form of Restricted Stock Unit Award Agreement (Performance-Based) under the 2013 Equity Incentive Plan – Anversa		8-K		10.2	12/12/18

Exhibit Number	Exhibit Description	Filed/Furnished Herewith	Incorporated by Reference			
			Form	Period Ending	Exhibit / Appendix Number	Filing Date
10.5.10*	Form of Restricted Stock Unit Award Agreement (Time-Based) under the 2013 Equity Incentive Plan – Anversa		8-K		10.3	12/12/18
10.6.1	Amended and Restated Credit Agreement, dated as of June 27, 2019, by and among Gentherm Incorporated, Gentherm (Texas), Inc., Gentherm Licensing, Limited Partnership, Gentherm Medical, LLC, Gentherm GmbH, Gentherm Enterprises GmbH, Gentherm Licensing GmbH, Gentherm Global Power Technologies Inc. and Gentherm Canada ULC, the lenders party thereto, and Bank of America, N.A., as administrative agent, swing line lender and L/C issuer.		8-K		10.1	6/28/19
10.6.2	Amended and Restated Pledge and Security Agreement, dated as of June 27, 2019, by and among Gentherm Incorporated, Gentherm Licensing, Limited Partnership, Gentherm (Texas), Inc., Gentherm Medical, LLC, Gentherm Properties I, LLC, Gentherm Properties II, LLC and Bank of America, N.A.		8-K		10.2	6/28/19
10.6.3	First Amendment to Amended and Restated Credit Agreement, dated as of October 7, 2019 and effective as of October 1, 2019, by and among Gentherm Incorporated, Gentherm Licensing, Limited Partnership, Gentherm (Texas), Inc., Gentherm Medical, LLC, Gentherm Properties I, LLC, Gentherm Properties II, LLC and Bank of America, N.A.	X				
10.7.1*	Separation Agreement and Release between Gentherm Incorporated and Frithjof Oldorff, dated May 6, 2019		8-K		10.1	5/7/19
10.8.1*	Employment Contract between Gentherm Incorporated and Phillip Eyler, dated as of September 18, 2017		8-K		10.1	10/3/17
10.8.2*	Amendment to Employment Terms between Gentherm Incorporated and Phillip Eyler, dated as of December 7, 2018		8-K		10.1	12/7/18
10.9*	Offer Letter between Gentherm Incorporated and Matteo Anversa, dated as of October 22, 2018		8-K		10.1	12/12/18
10.10*	Employment Contract between Gentherm GmbH and Thomas Stocker, effective September 1, 2019		10-Q	9/30/19	10.1	12/12/18
10.11*	Offer Letter between Gentherm Incorporated and Hui (Helen) Xu, effective November 4, 2019	X				
10.12*	Offer Letter between Gentherm Incorporated and Yijing Brentano, effective February 23, 2018	X				
10.13.1*	Amended and Restated Gentherm Incorporated Deferred Compensation Plan, dated May 20, 2019 (and effective January 1, 2019)		10-Q	6/30/19	10.4	7/26/19
10.13.2*	Deferred Compensation Agreement, between Gentherm Incorporated and Phillip Eyler, dated as of December 31, 2018.		8-K		10.2	1/4/19
16	Letter from Grant Thornton LLP		8-K		16	1/31/20
21	List of Subsidiaries (Direct and Indirect) of the Company.	X				
23	Consent of Grant Thornton LLP	X				
24	Power of Attorney.	X				
31.1	Section 302 Certification - CEO	X				
31.2	Section 302 Certification – CFO	X				
32.1	Section 906 Certification – CEO	X				
32.2	Section 906 Certification - CFO	X				

Exhibit Number	Exhibit Description	Filed/Furnished Herewith	Incorporated by Reference		
			Form	Period Ending	Exhibit / Appendix Number
101.INS	Inline XBRL Instance Document – The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	X			
101.SCH	Inline XBRL Taxonomy Extension Schema Document.	X			
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.	X			
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.	X			
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.	X			
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.	X			
104	Cover Page Interactive Date File – the cover page XBRL tags are embedded within the Inline XBRL document	X			

* Indicates management contract or compensatory plan or arrangement.

** Gentherm Incorporated agrees to furnish any omitted schedules or exhibits upon the request of the Securities and Exchange Commission.

ITEM 16. Form 10-K Summary

None.

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Board of Directors and Shareholders
Gentherm Incorporated

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of Gentherm Incorporated (a Michigan corporation) and subsidiaries (the “Company”) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, changes in shareholders’ equity, and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and financial statement schedule included under Item 15 (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in the 2013 Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated February 20, 2020 expressed an unqualified opinion.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the 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 financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 supporting the amounts and disclosures in the 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matters

The critical audit matters communicated below 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. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Goodwill Impairment Assessment – Medical

As described further in Note 2 to the financial statements, goodwill is tested for impairment at least annually at the reporting unit level. The determination of the fair value of the reporting units requires management to make significant estimates and assumptions related to the forecast of future revenues, operating margins and discount rates. These assumptions could have a significant impact on either the fair value of the reporting units, the amount of any goodwill impairment charge or both. We identified the annual goodwill impairment assessment of a reporting unit of the Industrial reporting segment as a critical audit matter (hereafter referred to as the “reporting unit”).

The principal consideration for our determination that the annual goodwill impairment assessment of the reporting unit is a critical audit matter is the high degree of auditor judgement necessary in evaluating certain inputs and assumptions made by management in the discounted cash flow analysis. Those assumptions include forecasted revenue of a number of new products the Company plans to introduce to the market beginning in 2020 and after, which contributes significantly to the fair value of the

reporting unit. In addition to forecasted revenues, other inputs and assumptions requiring a high degree of subjectivity include operating margin and the applied discount rate (hereafter referred to collectively as “key inputs and assumptions”).

Our audit procedures related to the goodwill impairment assessment of the reporting unit included the following, among others.

- We tested the design and operating effectiveness of controls relating to management’s goodwill impairment tests, including controls over the determination of the fair value of the reporting unit and management review controls over the reasonableness of key inputs and assumptions.
- We evaluated the reasonableness of management’s forecasts of future revenue and operating margin by comparing these forecasts to historical operating results for the Company’s past performance and performed sensitivity analyses around the forecasted figures.
- We utilized a valuation specialist to assess the appropriateness of the impairment methodology used and to test the key inputs and assumptions in the discounted cash flow model.
- We compared the key inputs and assumptions to past performance and third-party market data, where relevant. We also evaluated whether such inputs and assumptions were consistent with evidence obtained in other areas of the audit.

Income Taxes

As described in Notes 2 and 9 to the financial statements, the Company is subject to income taxes in the United States and numerous foreign jurisdictions, and the assessment of tax positions involves dealing with uncertainties in the application of complex tax laws and regulations, which are subject to legal and factual interpretation, judgment and uncertainty. The Company recorded a provision for income taxes of \$21.6 million for the year ended December 31, 2019 and net deferred tax assets of \$56.3 million, including a valuation allowance of \$28.8 million and unrecognized tax benefits of \$3.8 million as of December 31, 2019. Determining the provision for income taxes and other tax positions require significant management judgments, including the application of complex tax laws and regulations, tax incentives, transfer pricing, tax credits and the realizability of deferred tax assets. We identified income taxes as a critical audit matter.

The principal consideration for our determination that income taxes is a critical audit matter is that the matter involved subjective and complex auditor judgment related to the evaluation of management’s conclusions related to tax laws and regulations, transfer pricing and tax credits as they relate to management’s determination of the provision for income taxes and other tax positions. In addition, this matter required significant audit effort in performing our procedures over income taxes, including the use of professionals with specialized skill and knowledge.

Our audit procedures related to income taxes included the following, among others.

- We tested the design and operating effectiveness of controls relating to the provision of income taxes and other tax positions, including controls over the calculation of the global tax provision, realizability of deferred tax assets, and assessment of uncertain tax positions.
- We tested the provision for income taxes, including the effective tax rate reconciliation and permanent and temporary differences by evaluating communications with tax advisors and regulators, and testing the underlying data for completeness and accuracy.
- We evaluated the significant assumptions used by management in establishing and measuring tax-related assets and liabilities, including the application of recent regulations and forecasted taxable income supporting the realizability of deferred tax assets.
- We utilized professionals with specialized skill and knowledge to assist in evaluating the application of relevant tax laws, the provision for income taxes, transfer pricing and the reasonableness of management’s assessments of whether certain tax positions are more-likely-than-not of being sustained.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2007.

Southfield, Michigan
February 20, 2020

Board of Directors and Shareholders
Gentherm Incorporated

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of Gentherm Incorporated (a Michigan corporation) and subsidiaries (the “Company”) as of December 31, 2019, based on criteria established in the 2013 Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in the 2013 Internal Control—Integrated Framework issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended December 31, 2019, and our report dated February 20, 2020 expressed an unqualified opinion on those financial statements.

Basis for opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting (“Management’s Report”). Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Our audit of, and opinion on, the Company’s internal control over financial reporting does not include the internal control over financial reporting of Stihler Electronic GmbH, a wholly owned subsidiary, whose financial statements reflect approximately 2% of total assets and less than 1% of revenues of the related consolidated financial statement amounts as of and for the year ended December 31, 2019. As indicated in Management’s Report, Stihler Electronic GmbH was acquired during 2019. Management’s assertion on the effectiveness of the Company’s internal control over financial reporting excluded internal control over financial reporting of Stihler Electronic GmbH.

Definition and limitations of internal control over financial reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with 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 (3) 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. Also, projections of any evaluation of effectiveness to future periods are 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.

/s/ GRANT THORNTON LLP

Southfield, Michigan
February 20, 2020

GENTHERM INCORPORATED
CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

	<u>2019</u>	<u>2018</u>
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 50,443	\$ 39,620
Restricted cash	2,505	—
Accounts receivable, less allowance of \$1,193 and \$851, respectively	159,710	166,858
Inventory, net	118,479	112,535
Assets held for sale	—	69,699
Other current assets	42,726	54,363
Total current assets	<u>373,863</u>	<u>443,075</u>
Property and equipment, net of accumulated depreciation of \$129,458 and \$98,705, respectively	160,605	171,380
Goodwill	64,572	55,311
Other intangible assets, net of accumulated amortization of \$89,112 and \$81,198, respectively	49,783	56,385
Operating lease right-of-use assets	11,587	—
Deferred income tax assets	57,650	64,024
Other non-current assets	9,326	12,872
Total assets	<u>\$ 727,386</u>	<u>\$ 803,047</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	\$ 83,035	\$ 93,113
Current lease liabilities	4,586	—
Current maturities of long-term debt	2,500	3,413
Liabilities held for sale	—	13,062
Other current liabilities	66,583	65,808
Total current liabilities	<u>156,704</u>	<u>175,396</u>
Long-term debt, less current maturities	78,124	136,477
Pension benefit obligation	8,057	7,211
Non-current lease liabilities	6,751	—
Deferred income tax liabilities	1,357	1,177
Other non-current liabilities	3,743	3,087
Total liabilities	<u>\$ 254,736</u>	<u>\$ 323,348</u>
Shareholders' equity:		
Common Stock:		
No par value; 55,000,000 shares authorized, 32,674,354 and 33,856,629 issued and outstanding at December 31, 2019 and December 31, 2018, respectively	102,507	140,300
Paid-in capital	10,852	14,934
Accumulated other comprehensive loss	(42,441)	(39,500)
Accumulated earnings	401,732	363,965
Total shareholders' equity	<u>472,650</u>	<u>479,699</u>
Total liabilities and shareholders' equity	<u>\$ 727,386</u>	<u>\$ 803,047</u>

The accompanying notes are an integral part of these consolidated financial statements

GENTHERM INCORPORATED
CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share data)

	Year Ended December 31,		
	2019	2018	2017
Product revenues	\$ 971,684	\$ 1,048,505	\$ 993,991
Cost of sales	683,349	743,647	674,796
Gross margin	288,335	304,858	319,195
Operating expenses:			
Research and development expenses	91,033	98,663	94,515
Reimbursed research and development expenses	(18,557)	(18,763)	(12,037)
Net research and development expenses	72,476	79,900	82,478
Selling, general and administrative expenses	118,680	137,398	139,619
Restructuring expenses	12,919	14,772	—
Total operating expenses	204,075	232,070	222,097
Operating income	84,260	72,788	97,098
Interest expense, net	(4,763)	(4,942)	(4,885)
Foreign currency gain (loss)	2,326	622	(23,108)
Asset impairments and net loss on divestitures	(22,793)	(11,476)	—
Other income	121	1,127	150
Earnings before income tax	59,151	58,119	69,255
Income tax expense	21,645	16,220	34,028
Net income	\$ 37,506	\$ 41,899	\$ 35,227
Basic earnings per share	\$ 1.13	\$ 1.17	\$ 0.96
Diluted earnings per share	\$ 1.13	\$ 1.16	\$ 0.96
Weighted average number of shares – basic	33,120	35,921	36,721
Weighted average number of shares – diluted	33,298	36,177	36,814

The accompanying notes are an integral part of these consolidated financial statements

GENTHERM INCORPORATED
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	Year Ended December 31,		
	2019	2018	2017
Net income	\$ 37,506	\$ 41,899	\$ 35,227
Other comprehensive income (loss), gross of tax:			
Net (loss) gain on pension benefit obligations	(1,264)	91	244
Foreign currency translation adjustments (loss) gain	(2,415)	(19,212)	48,059
Unrealized gain on foreign currency derivative securities	1,151	1,096	301
Unrealized (loss) gain on commodity derivative securities	—	(218)	55
Other comprehensive (loss) gain, gross of tax	<u>\$ (2,528)</u>	<u>\$ (18,243)</u>	<u>\$ 48,659</u>
Other comprehensive income (loss), related tax effect:			
Cumulative effect of accounting change due to ASU 2018-02	—	(40)	—
Net gain (loss) on pension benefit obligations	232	(15)	(60)
Foreign currency translation adjustments (loss) gain	(393)	(390)	148
Unrealized loss on foreign currency derivative securities	(252)	(300)	(81)
Unrealized loss on commodity derivative securities	—	(68)	(19)
Other comprehensive loss, related tax effect	<u>\$ (413)</u>	<u>\$ (813)</u>	<u>\$ (12)</u>
Other comprehensive loss, net of tax	<u>\$ (2,941)</u>	<u>\$ (19,056)</u>	<u>\$ 48,647</u>
Comprehensive income	<u>\$ 34,565</u>	<u>\$ 22,843</u>	<u>\$ 83,874</u>

The accompanying notes are an integral part of these consolidated financial statements

GENTHERM INCORPORATED
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(In thousands)

	Common Stock		Paid-in Capital	Accumulated Other Comprehensive	Accumulated	Total
	Shares	Amount		Income (Loss)	Earnings	
Balance at December 31, 2016	36,534	\$ 262,251	\$ 10,323	\$ (69,091)	\$ 256,922	\$ 460,405
Exercise of Common Stock options for cash	202	3,662	(907)	—	—	2,755
Cumulative effect of accounting change due to adoption of ASU 2016-09	—	—	—	—	1,496	1,496
Common Stock issued to Board of Directors and employees	242	6,298	—	—	—	6,298
Stock repurchase	(164)	(5,326)	—	—	—	(5,326)
Stock option compensation	—	—	6,209	—	—	6,209
Cancellation of restricted stock	(53)	(1,837)	—	—	—	(1,837)
Net gain on pension benefit obligation, net	—	—	—	184	—	184
Currency translation, net	—	—	—	48,207	—	48,207
Foreign currency hedge, net	—	—	—	220	—	220
Commodity hedge, net	—	—	—	36	—	36
Net income	—	—	—	—	35,227	35,227
Balance at December 31, 2017	36,761	265,048	15,625	(20,444)	293,645	553,874
Cumulative effect of accounting change due to adoption of ASU 2014-09	—	—	—	—	(3,264)	(3,264)
Cumulative effect of accounting change due to adoption of ASU 2016-16	—	—	—	—	31,645	31,645
Cumulative effect of accounting change due to adoption of ASU 2018-02	—	—	—	(40)	40	—
Stock repurchase	(3,470)	(148,074)	—	—	—	(148,074)
Exercise of Common Stock options for cash	615	18,755	(3,979)	—	—	14,776
Cancellation of restricted stock	(71)	(1,188)	—	—	—	(1,188)
Stock option compensation	—	—	3,288	—	—	3,288
Common stock issued to Board of Directors and employees	22	5,759	—	—	—	5,759
Currency translation, net	—	—	—	(19,602)	—	(19,602)
Foreign currency hedge, net	—	—	—	796	—	796
Commodity hedge, net	—	—	—	(286)	—	(286)
Net gain on pension benefit obligation, net	—	—	—	76	—	76
Net income	—	—	—	—	41,899	41,899
Balance at December 31, 2018	33,857	140,300	14,934	(39,500)	363,965	479,699
Cumulative effect of accounting change due to adoption of ASU 2016-02	—	—	—	—	261	261
Stock repurchase	(1,595)	(63,283)	—	—	—	(63,283)
Exercise of Common Stock options for cash	431	21,524	(4,967)	—	—	16,557
Cancellation of restricted stock	(62)	(1,402)	—	—	—	(1,402)
Stock option compensation	—	—	885	—	—	885
Common stock issued to Board of Directors and employees	43	5,368	—	—	—	5,368
Currency translation, net	—	—	—	(2,808)	—	(2,808)
Foreign currency hedge, net	—	—	—	899	—	899
Net loss on pension benefit obligation	—	—	—	(1,032)	—	(1,032)
Net income	—	—	—	—	37,506	37,506
Balance at December 31, 2019	32,674	\$ 102,507	\$ 10,852	\$ (42,441)	\$ 401,732	\$ 472,650

The accompanying notes are an integral part of these consolidated financial statements

GENTHERM INCORPORATED
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2019	2018	2017
Operating Activities:			
Net income	\$ 37,506	\$ 41,899	\$ 35,227
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	44,246	50,638	44,972
Deferred income taxes	3,617	6,699	5,135
Stock based compensation	6,253	9,047	12,507
Defined benefit plan (income) expense	(570)	82	(23)
Provision of doubtful accounts	353	(1)	(469)
Loss on sale of property and equipment	462	2,602	1,042
Operating lease expense	6,173	—	—
Asset impairments and net loss on divestitures	22,793	11,476	—
Other	1,612	—	—
Changes in assets and liabilities:			
Accounts receivable	6,801	3,024	6,033
Inventory	(3,859)	(7,689)	(4,348)
Other current assets	7,996	(4,428)	(12,334)
Accounts payable	(10,253)	12,380	(7,691)
Other current liabilities	(4,327)	(7,295)	(30,171)
Net cash provided by operating activities	<u>118,803</u>	<u>118,434</u>	<u>49,880</u>
Investing Activities:			
Acquisition of business, net of cash acquired	(14,823)	(15)	(66,994)
Proceeds from the sale of property and equipment	219	799	91
Proceeds from divestitures of businesses, net	44,173	—	—
Purchases of property and equipment	(23,729)	(41,541)	(50,785)
Net cash provided by (used in) investing activities	<u>5,840</u>	<u>(40,757)</u>	<u>(117,688)</u>
Financing Activities:			
Borrowing of debt	37,812	94,679	—
Repayments of debt	(96,999)	(99,460)	(27,156)
Cash paid for financing costs	(1,278)	—	—
Cash paid for the cancellation of restricted stock	(1,402)	(1,188)	(1,837)
Proceeds from the exercise of Common Stock options	16,557	14,777	2,755
Cash paid for the repurchase of Common Stock	(63,283)	(148,074)	(5,326)
Net cash used in financing activities	<u>(108,593)</u>	<u>(139,266)</u>	<u>(31,564)</u>
Foreign currency effect	(2,722)	(1,963)	25,357
Net increase (decrease) in cash, cash equivalents and restricted cash	13,328	(63,552)	(74,015)
Cash, cash equivalents and restricted cash at beginning of period	39,620	103,172	177,187
Cash, cash equivalents and restricted cash at end of period	<u>\$ 52,948</u>	<u>\$ 39,620</u>	<u>\$ 103,172</u>
Supplemental disclosure of cash flow information:			
Cash paid for taxes	<u>\$ 11,008</u>	<u>\$ 23,159</u>	<u>\$ 76,741</u>
Cash paid for interest	<u>\$ 4,462</u>	<u>\$ 5,027</u>	<u>\$ 4,540</u>

The accompanying notes are an integral part of these consolidated financial statements

GENTHERM INCORPORATED
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except share and per share data)

Note 1 — Overview

Gentherm Incorporated is a global developer and marketer of innovative thermal management technologies for a broad range of heating and cooling and temperature control applications. Unless the context otherwise requires, the terms “Gentherm”, “Company”, “we”, “us” and “our” used herein refer to Gentherm Incorporated and its consolidated subsidiaries. Our products provide solutions for automotive passenger climate comfort and convenience, battery thermal management and cell connecting systems, as well as patient temperature management within the health care industry. Our automotive products can be found on the vehicles of nearly all major automotive manufacturers operating in North America, Europe and Asia. We operate in locations aligned with our major customers’ product strategies to provide locally enhanced design, integration and production capabilities. The Company is also developing a number of new technologies and products that will help enable improvements to existing products and to create new product applications for existing and new markets.

On February 1, 2019, the Company completed the divestiture of its environmental test equipment business, Cincinnati Sub Zero industrial chamber business (“CSZ-IC”) and on October 1, 2019, the Company completed the divestiture of its remote power generation systems business, Gentherm Global Power Technologies (“GPT”). The Company’s consolidated financial statements herein include the results of CSZ-IC and GPT through their respective dates of divestiture. CSZ-IC and GPT are not subject to discontinued operations classification.

Note 2 — Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”). Certain prior period amounts have been reclassified to conform to current period presentation. Notably, \$10,246 and \$8,308 in customer relationship amortization was reclassified from product revenues to selling, general and administrative expenses for the fiscal years ended December 31, 2018 and 2017, respectively, and the results from asset disposals during 2017 were reclassified from other income to cost of sales for the year ended December 31, 2017.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company, its wholly owned subsidiaries and those entities in which it has a controlling financial interest. Investments in affiliates in which Gentherm does not have control but does have the ability to exercise significant influence over operating and financial policies are accounted for under the equity method. When Gentherm does not have the ability to exercise significant influence (generally when ownership interest is less than 20%), investments in affiliates are measured at cost, less impairments, adjusted for observable price changes in orderly transactions for identical or similar investments of the same issuer.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires the use of estimates and assumptions that affect amounts reported therein. Considerable judgment is involved in making these determinations and the use of different estimates or assumptions could result in significantly different results. Management believes its assumptions and estimates are reasonable and appropriate. However, actual results could differ from those reported herein.

Segment Reporting

The Company has two reportable segments: *Automotive*, which includes automotive climate comfort systems, specialized automotive cable systems, battery thermal management, and automotive electronic systems; and *Industrial*. The Industrial segment represents the combined results from our patient temperature management systems business (“Medical”), GPT (through October 1, 2019), CSZ-IC (through February 1, 2019) and Gentherm’s advanced research and development division. The operating results from

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

these businesses and division are presented together as one reporting segment because of their historical joint concentration on identifying new markets and product applications based on thermal management technologies.

Revenue Recognition

Revenue is recognized from agreements containing enforceable rights and obligations, when promised goods are delivered or services are completed. Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer, are excluded from product revenues. Shipping and handling fees billed to customers are included in product revenues, while costs of shipping and handling are included in cost of sales.

Automotive Revenues

The Company provides production parts to its customers under long-term supply agreements ("LTAs"). The duration of an LTA is generally consistent with the life cycle of a vehicle; however, an LTA does not reach the level of a performance obligation until Gentherm receives either a purchase order and/or a materials release from the customer for a specific number of production parts at a specified price, at which point an enforceable contract exists. Revenue is recognized when control of the production parts has transferred to the customer according to the terms of the contract, which typically occurs when the parts are shipped or delivered to the customer's premises. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring production parts.

Certain LTAs provide for annual price reductions over the production life of the vehicle. Agreements that are determined to provide customers with purchase option discounts that would not be received without entering into the contract are considered to contain a material right (for example, a discount given to a customer that is incremental to the range of discounts typically given to that class of customer). The material right represents a purchase option that provides the customer with the ability to purchase additional production parts at a set price in the future and is accounted for as a separate performance obligation. Under these circumstances, each transfer of production parts under the LTA requires allocation of the purchase price to the production part and the purchase option. As a practical alternative to estimating the standalone selling price of an option, the Company allocates transaction price to the purchase option by reference to the production part volumes expected to be ordered and the consideration expected to be received over the life of the vehicle program.

The production part's relative standalone selling price observed under the LTA is subtracted from the total amount of consideration expected to be received in exchange for transferring of parts under the current contract and the difference is allocated to the purchase option. Revenue from options containing a material right is recognized when the amounts billed by the customer for production parts transferred, under the LTA, is less than the standalone selling price of those production parts.

Medical Revenues

Revenues from our patient temperature management business unit are generated from the sale of products and equipment. Our medical products and equipment focus on body and blood temperature management. The Company sells medical products and equipment primarily through distributor and group purchasing organization agreements. These agreements allow member participants to the distributor or group purchasing organization to make purchases at discounted prices negotiated by the distributor or group purchasing organization. A rebate is incurred at the point in time a member participant purchases product covered under these types of agreements. Rebates are accounted for as variable consideration, using an expected value, probability weighted approach, based on the level of sales to the distributor and the time lag between the initial sale and the rebate claim in determining the transaction price of a contract. Revenue is recognized at the point in time the medical products or equipment is transferred to the customer.

GPT and CSZ-IC Revenues

Revenues from our divested businesses, GPT and CSZ-IC, were generated from the sale of products and services. GPT and CSZ-IC customers commonly entered into multiple-element agreements for the purchase of products and services. Installation

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

services, for example, were separate and distinct performance obligations that were often included in contracts to purchase customized environmental test chambers. Depending on the application, delivery of an environmental test chamber or remote power generation system to the customer's place of business could range from two weeks to nine months from commencement of the contract. Installation services, while reliant on the specifications and timing from the customer, rarely remained incomplete more than two months after delivery.

Revenues allocated to environmental test chambers or remote power systems were based on the stand-alone selling price of the products themselves. Judgement was used to determine the degree to which early pay discounts and other credits were utilized in the calculation of standalone selling price, and only included to the extent it was probable that a significant reversal of any incremental revenue would not occur. Revenues were recognized at the point in time the chamber or power system was shipped to the customer. For contracts that also included a promise for installation, the portion of total transaction price allocated to the installation was recognized as revenue at the point in time the installation was complete.

GPT and CSZ-IC often required milestone payments for contracts to provide environmental test chambers or remote power systems to customers. Milestone payments did not provide the Company with a right to payment for the work completed to date and did not represent the satisfaction of a performance obligation. Milestone payments were deferred and reported within unearned revenue until construction was complete and the unit had been delivered or was installed. If the environmental test chamber contract included a separate promise to provide installation services, any installation-related payments received from the customer were deferred until the point in time the installation was complete.

The total amount of unearned revenue associated with environmental chamber and remote power system contracts, including environmental chamber contracts that included a separate obligation to provide installation, that existed as of December 31, 2018 was \$5,296 and is classified within Liabilities held for sale on the consolidated balance sheet at December 31, 2018. See Note 4 to our consolidated financial statements for information about the assets and liabilities that was classified as held for sale.

Assets Recognized from the Costs to Obtain a Contract with a Customer

We recognize an asset for the incremental costs of obtaining a contract with a customer if the benefits of those costs are expected to be realized for a period greater than one year. Total capitalized costs to obtain a contract were \$1,893 and \$374 as of December 31, 2019 and 2018, respectively. These amounts are recorded in other current assets and are being amortized into product revenues over the expected production life of the program. During the year ended December 31, 2019, \$1,006 was amortized into product revenues. During the year ended December 31, 2018, amounts amortized into product revenues was immaterial.

Cash and Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments purchased with original maturities of less than 90 days to be cash equivalents. Cash balances in individual banks may exceed the federally insured limit by the Federal Deposit Insurance Corporation. The Company had cash and cash equivalents of \$35,735 and \$31,976 held in foreign jurisdictions as of December 31, 2019 and 2018, respectively. Restricted cash includes cash that is legally restricted as to use or withdrawal.

Disclosures About Fair Value of Financial Instruments

The carrying amounts of financial instruments comprising cash and cash equivalents, short-term investments and accounts receivable approximate fair value because of the short maturities of these instruments. The carrying amount of the Company's U.S. Revolving Note approximates its fair value because interest charged on the loan balance is variable. See Note 15 for information about the techniques used to assess the fair value of financial assets and liabilities, including our fixed rate debt instruments.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Concentration of Credit Risk

Financial assets, which subject the Company to concentration of credit risk, consist primarily of cash equivalents, short-term investments and accounts receivable. Cash equivalents consist primarily of money market funds managed by major financial services companies. The credit risk for these cash equivalents is considered low. The Company does not require collateral from its customers. As of December 31, 2019, Lear, Adient and Magna comprised 21%, 21% and 7% respectively, of the Company's accounts receivable balance. As of December 31, 2018, Lear, Adient, and Faurecia comprised 21%, 18% and 9% respectively, of the Company's accounts receivable balance. These accounts are currently in good standing.

Accounts Receivable

Accounts receivable are stated at the invoiced amount, less allowance for doubtful accounts for estimated amounts not expected to be collected, and do not bear interest. We record an allowance for doubtful accounts once exposure to collection risk of an account receivable is specifically identified. We analyze the length of time an account receivable is outstanding, as well as a customer's payment history and ability to pay to determine the need to record an allowance for doubtful accounts. We write-off accounts receivable when they become uncollectible.

Inventory

The Company's inventory is measured at the lower of cost or net realizable value, with cost being determined using the first-in first-out basis. Raw materials, consumables and commodities are measured at cost of purchase and unfinished and finished goods are measured at cost of production, using the weighted average method. If the net realizable value expected on the reporting date is below cost, a write-down is recorded to adjust inventory to its net realizable value. We recognize a reserve for obsolete and slow-moving inventories based on estimates of future sales and an inventory item's capacity to be repurposed for a different use. We consider the number of months supply on hand based on current planned requirements, uncommitted future projections and historical usage in estimating the inventory reserve.

Property and Equipment

Property and equipment, including additions and improvements, are recorded at cost less accumulated depreciation. Expenditures for repairs and maintenance are charged to expense as incurred. When property or equipment is retired or otherwise disposed of, the related cost and accumulated depreciation are removed from the accounts. Gains or losses from retirements and disposals are recorded as operating income or expense.

Depreciation is computed using the straight-line method. The estimated useful lives of the Company's property and equipment are as follows:

Asset Category	Useful Life
Buildings and improvements	2 to 50 years
Plant and equipment	1 to 20 years
Production tooling	2 to 10 years
Leasehold improvements	Term of lease
Information technology	1 to 10 years

The Company recognized depreciation expense of \$33,639, \$36,270 and \$32,224 for the years ended December 31, 2019, 2018 and 2017, respectively.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Goodwill and Other Intangible Assets

Goodwill and other intangible assets recorded in conjunction with business combinations are based on the Company's estimate of fair value, as of the date of acquisition.

Amortization is computed using the straight-line method. The fair value and corresponding useful lives for acquired intangible assets are listed below as follows:

Asset Category	Useful Life
Customer relationships	6-15 years
Technology	4-8 years
Product development costs	1-15 years
Tradenames	Indefinite

Our business strategy largely centers on designing products based upon internally developed and purchased technology. When possible and having value to the business strategy, we protect these technologies with patents. Our policy is to expense all costs associated with the development and issuance of new patents as incurred. Such costs are classified as research and development expenses in our consolidation statements of income.

Patents purchased as part of a business combination are capitalized based on their fair values. Periodically, we review the recoverability and remaining lives of our capitalized patents, and if necessary, make adjustments to reported amounts, based upon unfavorable impacts from market conditions, the emergence of competitive technologies and changes in our projected business plans.

Impairments of Long-Lived Assets, Other Intangible Assets and Goodwill

Whenever events or changes in circumstances indicate that it is more likely than not that a long-lived asset's fair value, other intangible asset's fair value or a reporting unit's fair value is less than its carrying amount, the Company then compares the fair value of the long-lived asset, other intangible asset or reporting unit to the related net book value. If the net book value of a long-lived asset, other intangible asset or reporting unit exceeds its fair value, an impairment loss is recognized for the amount by which the carrying amount of the asset exceeds its fair value. The fair value of a long-lived asset, other intangible asset or reporting unit is estimated by analyzing internal inputs (level 3) to calculate forward values and discounting those values to the present value. Goodwill is not amortized but is tested for impairment on at least an annual basis.

Accrued Warranty Costs

The Company accrues warranty obligations for products sold based on management estimates of future failure rates and current claim cost experience, with support from the sales, engineering, quality and legal functions. Using historical information available to the Company, including claims already filed by customers, the warranty accrual is adjusted quarterly to reflect management's best estimate of future claims.

Tooling

The Company incurs costs related to tooling used in the manufacture of products sold to its customers. In some cases, the Company enters into contracts with its customers whereby the Company incurs the costs to design, develop and purchase tooling and is then reimbursed by the customer under a reimbursement contract. Tooling costs that will be reimbursed by customers are included in other current assets at the lower of accumulated cost or the customer reimbursable amount. As of December 31, 2019 and 2018, respectively, \$5,347 and \$6,628 of reimbursable tooling was capitalized within other current assets. Company-owned tooling is included in property and equipment and depreciated over its expected useful life, generally two to ten years. Management periodically

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(In thousands, except share and per share data)

evaluates the recoverability of tooling costs, based on estimated future cash flows, and makes provisions, where appropriate, for tooling costs that will not be recovered.

Research and Development Expenses

Research and development activities are expensed as incurred. The Company groups development and prototype costs and related reimbursements in research and development. The Company recognizes amounts due as reimbursements for expenses as these expenses are incurred.

Leases

The Company has operating leases for office, manufacturing and research and development facilities, as well as land leases for certain manufacturing facilities that are accounted for as operating leases. We also have operating leases for office equipment and automobiles. Excluding land leases, our leases have remaining lease terms ranging from less than 1 year to 7 years and may include options to extend the lease for an additional term equal to the original term of the lease. Land leases have remaining lease terms that range from 41 to 43 years and some which specify that the end of the lease term is at the discretion of the lessee. We do not have lease arrangements with related parties.

The Company determines whether a contractual arrangement is or contains a lease at inception. Leases that are operating in nature are recognized in operating lease right-of-use assets, current lease liabilities and non-current lease liabilities on our consolidated balance sheets. While Gentherm is not currently party to any leases that qualify as financing leases, right-of-use assets and liabilities recognized from financing leases would be presented separately from the right-of-use assets and liabilities recognized from operating leases on our consolidated balance sheet.

Lease liabilities are measured initially at the present value of the sum of the future minimum rental payments at the commencement date of the lease. Lease payments that will vary in the future due to changes in facts and circumstances are excluded from the calculation of rental payments, unless those variable payments are based on an index or rate. Rental payments are discounted using an incremental borrowing rate based on the Company's credit rating, determined on a fully collateralized loan basis from information available at commencement date, and the duration of the lease term (the "reference rate"). Judgement is used to assess the importance of risk factor inputs during the computation of the Company's credit rating. For significant leases at foreign subsidiaries denominated in U.S. Dollars, a risk premium associated with the borrower subsidiary's country is added to the reference rate. For significant leases at foreign subsidiaries denominated in a foreign currency, the U.S. Dollar risk free rate with a duration similar to that of the lease term is subtracted from the reference rate and a corresponding foreign currency risk free rate with a duration similar to that of the lease term is added to the reference rate. Judgement is used to determine whether foreign subsidiary leases are significant.

Operating lease right-of-use assets are measured at the amount of the lease liability, adjusted for prepaid or accrued lease payments, lease incentive received, and initial direct costs incurred, as applicable. Periods covered by an option to extend the lease are initially included in the measurement of an operating lease right-of-use asset and lease liability only when it is reasonably certain we will exercise the option. Gentherm's lease agreements do not contain residual value guarantees or impose restrictions or covenants on the Company.

For all classes of underlying assets, the Company accounts for leases that contain separate lease and non-lease components as containing a single lease component. The Company does not recognize lease right-of-use assets and lease liabilities from leases with an original lease term of 12 months or less and, instead, recognizes rent payments on a straight-line basis over the lease term in the Company's consolidated statements of income.

Income Taxes

The Company records income tax expense using the liability method which specifies that deferred tax assets and liabilities be measured each year based on the difference between the financial statement and tax base of assets and liabilities at the applicable enacted tax rates. A valuation allowance is provided for deferred tax assets when management considers it more likely than not that

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

the asset will not be realized. At December 31, 2019 and 2018, a valuation allowance has been provided for certain deferred tax assets which the Company has concluded are more likely than not to be realized. If future annual taxable income were to be significantly less than current and projected levels, there is a risk that certain of our deferred tax assets not already provided for by the valuation allowance would expire prior to utilization.

The Company recognizes the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more-likely-than-not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement with the relevant tax authority. The Company recognizes interest and penalties related to income tax matters in income tax expense.

Derivative Financial Instruments – Hedge Accounting

The Company accounts for some of its derivative financial instruments as cash flow hedges as defined in Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 815. For derivative contracts which can be classified as a cash flow hedge, the effective portion of the change in the fair value of the derivative is recorded to accumulated other comprehensive income in the consolidated balance sheets. When the underlying hedge transaction is realized, the gain or loss included in accumulated other comprehensive income is recorded in earnings in the consolidated statements of income on the same line as the gain or loss on the hedged item attributable to the hedged risk. Any ineffective portion of the gain or loss is recognized in the consolidated statements of income under foreign currency gain (loss) or revaluation of derivatives gain (loss). These hedging transactions and the respective correlations meet the requirements for hedge accounting.

Earnings per Share

Basic earnings per share is computed by dividing net income by the weighted average number of shares of Common Stock outstanding during the respective period. The Company’s diluted earnings per common share give effect to all potential shares of Common Stock outstanding during a period that are not anti-dilutive. In computing the number of diluted shares outstanding, the treasury stock method is used in order to arrive at a net number of shares created upon the conversion of Common Stock equivalents.

Stock Based Compensation

Share based payments that involve the issuance of Common Stock to employees, including grants of employee stock options, restricted stock, and time-based and performance-based restricted stock units, are recognized in the financial statements as compensation expense based upon the fair value on the date of grant. Performance-based restricted stock unit awards are measured based on either a target return on invested capital ratio (“ROIC”), as defined in the award agreement, for a specified fiscal year, or the Company’s common stock market price returning a target total shareholder return (“TSR”), as defined, during a specific three-year measurement period. Upon achievement of the performance measurement, performance-based restricted stock units vest over a three-year period.

Share based payments that are satisfied only by the payment of cash, such as stock appreciation rights, are accounted for as liabilities. The liability is reported at market value of the vested portion of the underlying units. During each period, the change in the liability is recorded as compensation expense during periods when the liability increases or income during periods in which the liability decreases.

Pension Plans

The Company’s obligations and expenses for its pension plans are dependent on the Company’s selection of discount rate, expected long-term rate of return on plan assets and other assumptions used by actuaries to calculate these amounts.

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Assets and Liabilities Held for Sale

The Company classifies assets and liabilities (disposal groups) to be sold as held for sale in the period in which all of the following criteria are met: management, having the authority to approve the action, commits to a plan to sell the disposal group; the disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such disposal groups; an active program to locate a buyer and other actions required to complete the plan to sell the disposal group have been initiated; the sale of the disposal group is probable, and transfer of the disposal group is expected to qualify as a completed sale within one year, except if events or circumstances beyond the Company's control extend the period of time required to sell the disposal group beyond one year; the disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value; and actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

The Company initially measures a disposal group that is classified as held for sale at the lower of its carrying value or fair value less any costs to sell. Any loss resulting from this measurement is recognized in the period in which the held for sale criteria are met. Gains are not recognized on the sale of a disposal group until the date of sale. The Company assesses the fair value of a disposal group, less any costs to sell, each reporting period it remains classified as held for sale and reports any subsequent losses as an adjustment to the carrying value of the disposal group.

The Company reports assets and liabilities of the disposal group in the line items assets held for sale and liabilities held for sale in the Consolidated Balance Sheet in the period the disposal group meets the criteria to be classified as held for sale. See Note 4 to our consolidated financial statements for information about the assets and liabilities classified as held for sale.

Note 3 — New Accounting Pronouncements**Recently Adopted Accounting Pronouncements***Leases*

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)" (as amended, "ASU 2016-02"). ASU 2016-02 requires lessees to recognize a lease liability and a right-of-use asset on the balance sheet for all leases, except for short-term leases with terms of twelve months or less. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and is measured as the present value of the lease payments. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and is measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the lessee's initial direct costs. Leases are to be classified as finance or operating leases, with classification affecting the pattern and classification of expense recognition in the statements of income (loss).

The Company adopted ASU 2016-02 on January 1, 2019, by applying the modified retrospective method and recognized a cumulative-effect adjustment to the opening balance in retained earnings. Financial information has not been updated and disclosures under the new standard have not been provided to dates and periods before January 1, 2019, and the Company's reporting for the comparative periods in the consolidated financial statements will continue to be in accordance with Accounting Standards Codification Topic 840, Leases ("ASC 840").

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(In thousands, except share and per share data)

ASU 2016-02 did not have a presentation impact on the Company's consolidated statements of income or cash flows for the year ended December 31, 2019 but did have an impact on the consolidated balance sheet as of December 31, 2019. The cumulative effects of the changes made to the Company's consolidated balance sheet as of January 1, 2019 for the adoption of ASU 2016-02 were as follows:

	Balance as of December 31, 2018	Adjustments due to adoption of ASU 2016-02	Balance as of January 1, 2019
Other current assets	\$ 54,363	\$ (74)	\$ 54,289
Assets held for sale	69,699	4,127	73,826
Operating lease right-of-use assets	—	13,019	13,019
Liabilities held for sale	13,062	4,136	17,198
Deferred income tax liabilities	1,177	114	1,291
Non-current lease liabilities	—	12,561	12,561
Accumulated earnings	363,965	261	364,226

The Company elected the package of practical expedients provided in ASU 2016-02, which permits a lessee to not reassess under the new standard its prior conclusions about lease identification, lease classification and initial direct costs. Gentherm elected the use-of-hindsight to determine whether lease terms included periods covered by the lessee's option to extend or terminate a lease, whether to purchase the underlying asset at the end of the lease agreement, and in assessing impairment of operating lease right-of-use assets. Finally, Gentherm elected to not assess whether existing or expired land easements that were not previously accounted for as leases are or contain a lease. Land easements previously accounted for as leases were not eligible for this practical expedient.

Recently Issued Accounting Pronouncements Not Yet Adopted*Expected Credit Losses*

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." ASU 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. ASU 2016-13 is effective for annual and interim periods beginning after December 15, 2019. Early adoption of the amendments in this update is permitted. The Company is currently in the process of determining the impact the implementation of ASU 2016-13 will have on the consolidated financial statements and note disclosures. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

Cloud Computing Arrangements That Are Service Contracts

In August 2018, the FASB issued ASU 2018-15, "Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." ASU 2018-15 requires implementation costs incurred by customers in cloud computing arrangements to be deferred and recognized over the term of the arrangement if those costs would be capitalized by the customer in a software licensing arrangement under the internal-use software guidance. ASU 2018-15 is effective for annual and interim periods beginning after December 15, 2019. Early adoption of the amendments in this update is permitted. We are currently in the process of determining the impact the implementation of ASU 2018-15 will have on the Company's financial statements and note disclosures. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

Retirement Benefits

In August 2018, the FASB issued ASU 2018-14, "Compensation – Retirement Benefits – Defined Benefit Plans – General (Subtopic 715-20): Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans." ASU 2018-14 removes certain disclosure requirements, including (i) the amounts in accumulated other comprehensive income expected to be

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

recognized as components of net periodic benefit cost over the next fiscal year, and (ii) the amount and timing of plan assets expected to be returned to the employer. ASU 2018-14 also adds new disclosure requirements, including (i) the weighted-average interest crediting rates for cash balance plans and other plans with promised interest crediting rates and (ii) an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period. ASU 2018-14 is effective for annual periods ending after December 15, 2020. Early adoption of the amendments in this update is permitted. We are currently in the process of determining the impact the implementation of ASU 2018-14 will have on the Company's financial statement note disclosures. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

Fair Value Measurement

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement." ASU 2018-13 removes certain disclosure requirements, including (i) the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, (ii) the policy for timing of transfer between levels, and (iii) the valuation processes for Level 3 fair value measurements. ASU 2018-13 also adds new disclosure requirements, including (i) the changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and (ii) the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. ASU 2018-13 is effective for annual and interim periods beginning after December 15, 2019. Early adoption of disclosures that are removed is permitted, but adoption is delayed for the new additional disclosures until their effective date. We are currently in the process of determining the impact the implementation of ASU 2018-13 will have on the Company's financial statement note disclosures. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

Note 4 – Acquisitions and Divestitures

In June 2018, Gentherm announced a new strategic plan. An important element of the strategy was the elimination of investments in non-core areas, including GPT and CSZ-IC. The strategy also identified several product categories the Company exited in 2018, including furniture, aviation, battery management electronics, industrial battery packs, automotive thermoelectric generators and other non-core electronics.

During the year ended December 31, 2018, Gentherm determined that GPT and CSZ-IC met the held for sale criteria and recognized \$11,476 of asset impairment charges, consisting of \$6,151 of goodwill impairment charges, \$3,135 of other intangible asset impairment charges and \$2,190 of impairment on assets held for sale. These impairment charges are reported within Industrial segment and are classified as Asset impairments and net loss on divestitures within the consolidated statements of income.

Divestiture of CSZ-IC

On February 1, 2019, the Company completed the sale of CSZ-IC and former Cincinnati Sub-Zero headquarters facility to Weiss Technik North America, Inc. for total cash proceeds of \$47,500, including \$2,500 of cash proceeds placed into an escrow account for a period of up to one year as partial security for the Company's obligations under the sale agreement. In connection with the sale, Gentherm entered into an operating lease agreement for a portion of the office and manufacturing building space purchased by Weiss Technik North America, Inc. The Company recognized a \$4,298 pre-tax gain on the sale of CSZ-IC for the year ended December 31, 2019 which is classified as Asset impairments and net loss on divestitures within the consolidated statements of income. Subsequent to December 31, 2019, claims were made against the cash proceeds held in the escrow account. The Company is not able to estimate the possible loss, if any, of amounts held in escrow in connection with this matter.

Divestiture of GPT

During 2019, the Company continued to assess the fair value of the GPT disposal group, less costs to sell, at each reporting period. As a result of these fair value measurements, the Company recognized additional impairment losses of \$21,206 consisting of

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

\$4,486 of impairment of an equity investment that met the held for sale criteria during 2019 and \$16,720 of impairment on assets held for sale. These impairment charges are classified as Asset impairments and net loss on divestitures within the consolidated statements of income.

On October 1, 2019, the Company completed the sale of GPT for a nominal amount and recognized a \$5,885 loss on sale for the year ended December 31, 2019, which included \$3,995 related to the release of previously deferred foreign currency translation losses recorded in accumulated other comprehensive loss and \$1,500 related to a loan to the buyer that was considered uncollectible.

Assets and Liabilities Held for Sale as of December 31, 2018 – CSZ-IC and GPT

The assets and liabilities of the disposal group classified as held for sale as of December 31, 2018 were as follows:

Accounts receivable, less allowance of \$96	\$	10,868
Inventory, net		13,925
Prepaid expenses and other assets		263
Property and equipment, net		29,459
Goodwill		6,844
Other intangible assets, net		6,326
Deferred income tax assets		4,204
Other non-current assets		—
Impairment loss		(2,190)
Total assets for sale		<u>69,699</u>
Accounts payable		2,614
Accrued liabilities		10,448
Total liabilities for sale	\$	<u>13,062</u>

Acquisition of Stihler Electronic GmbH

On April 1, 2019, Gentherm acquired Stihler Electronic GmbH (“Stihler”), a leading developer and manufacturer of patient and blood temperature management systems, for a purchase price of \$15,476, net of cash acquired and including \$653 of contingent consideration to be paid upon achievement of a milestone that must be completed by September 2020. In addition, the purchase agreement includes a contingent payment of \$653 to be paid if the selling shareholder remains employed by Stihler through December 2020. This amount is being recognized as a component of selling, general and administrative expenses ratably over the service period. The results of operations of Stihler are reported within the Company’s Industrial segment from the date of acquisition. During the year ended December 31, 2019, the Company incurred acquisition-related costs of approximately \$324. These amounts were recorded as incurred, within the Company’s consolidated statements of income.

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(In thousands, except share and per share data)

The acquisition was accounted for as a business combination. The purchase price and related allocation to the acquired net assets of Stihler, based on their estimated fair values as of the acquisition date, are shown below:

Purchase price, cash consideration, net of cash acquired	\$	14,823
Purchase price, fair value of contingent consideration		653
Total purchase price, net of cash acquired		<u>15,476</u>
Accounts receivable		883
Inventory		1,698
Prepaid expenses and other assets		241
Operating lease right-of-use assets		263
Property and equipment		260
Other intangible assets		4,380
Goodwill		9,816
Assumed liabilities		<u>(2,065)</u>
Net assets acquired	\$	<u>15,476</u>

Other intangible assets primarily include amounts recognized for the fair value of customer-related intangible assets, which will be amortized over their estimated useful lives of approximately 9 years. The estimated fair value of these assets was based on third-party valuations and management's estimates, generally utilizing an income approach. Goodwill recognized in this transaction is primarily attributable to intangible assets that do not qualify for separate recognition. It is estimated that \$2,524 of the goodwill recognized will be deductible for income tax purposes.

The pro forma effect of the Stihler acquisition does not materially impact the Company's reported results for any period presented, and as a result no pro forma financial statements are presented.

Acquisition of Etratech

On November 1, 2017, the Company acquired substantially all of the assets and assumed substantially all of the operating liabilities of Etratech Inc., an Ontario corporation and all of the outstanding shares of Etratech Hong Kong, an entity organized under the laws of Hong Kong, in an all-cash transaction for a purchase price of \$65,009, net of cash acquired of \$670. Etratech manufactures advanced electronic controls and control systems for the automotive, RV and marine, security, medical and other industries. Results of operations for Etratech are reported within the Company's Automotive segment from the date of acquisition. Etratech contributed \$8,398 in product revenues and a net loss of \$510 for the year ended December 31, 2017.

Supplemental Pro Forma Information

The unaudited pro forma combined historical results including the amounts of Etratech revenue and earnings that would have been included in the Company's consolidated statements of income had the acquisition date been January 1, 2017 is as follows:

		Year Ended December 31, 2017
Product revenues	\$	1,032,273
Net income	\$	35,911
Basic earnings per share	\$	0.98
Diluted earnings per share	\$	0.98

This pro forma information is not indicative of future operating results.

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Note 5 — Restructuring

Manufacturing Footprint Rationalization

On September 23, 2019, the Company committed to a restructuring plan to improve the Company's manufacturing productivity and rationalize its footprint. Under this plan, the Company will relocate and consolidate certain existing automotive manufacturing and, as a result, certain other activities, overall reducing the number of plants by two. During the year ended December 31, 2019, the Company recognized expense of \$4,863 for employee separation costs that will be paid pursuant to the terms of statutory requirements of the affected locations. Additionally, the Company recognized \$2,087 of accelerated depreciation and fixed asset impairment.

The Company expects to incur total costs of between \$20,000 and \$24,000, of which between \$17,000 and \$21,000 are expected to be cash expenditures. The total expected costs include employee separation costs of between \$9,000 and \$11,000, capital expenditures of between \$4,500 and \$5,500 and non-cash expenses for accelerated depreciation and impairment of fixed assets of \$3,000. The Company also expects to incur other transition costs including recruiting, relocation, and machinery and equipment move and set up costs of between \$3,500 and \$4,500. The actions under this plan are expected to be substantially completed by the end of 2021. The actual timing, costs and savings of the Plan may differ materially from the Company's current expectations and estimates.

Other Restructuring Activities

As part of the Company's continued efforts to optimize its cost structure, the Company has undertaken several discrete restructuring actions. During the years ended December 31, 2019 and 2018, the Company recognized \$2,942 and \$6,598 of employee separation costs, respectively, and \$1,360 and \$2,869 of other related costs, respectively. These restructuring expenses were primarily associated with restructuring actions focused on the rotation of our manufacturing footprint to lower cost locations and the reduction of global overhead costs. These discrete restructuring actions are expected to approximate the total cumulative costs for those actions. The Company will continue to explore opportunities to improve its future profitability and competitiveness. These actions may result in the recognition of additional restructuring charges that could be material.

Advanced Research and Development Rationalization and Site Consolidation

In June 2018, Gentherm completed the sale of its battery management systems division located in Irvine, California. A loss on the sale of \$1,107 was recognized in restructuring expenses during the year ended December 31, 2018. An additional asset impairment loss of \$425 was recognized during the year ended December 31, 2019.

During the year ended December 31, 2018, Gentherm recognized employee separation costs of \$1,094, and \$643 of other related costs associated with the closure of two leased facilities located in Azusa, California. The Company also recognized \$1,400 in restructuring expenses for the year ended December 31, 2018 for the disposal of long-lived assets controlled and used in Azusa, California.

The Company has recorded approximately \$4,669 of restructuring expenses since inception of this program and it is considered complete.

GPT and CSZ-IC

During 2018, Gentherm launched a program to actively market GPT and CSZ-IC. Costs associated with the divestiture process were classified as restructuring. During the year ended December 31, 2019 and 2018, the Company recognized \$251 and \$757 of employee separation costs, respectively, and \$991 and \$304 of other related costs, respectively.

The Company has recorded approximately \$2,303 of restructuring expenses since inception of this program and it is considered substantially complete.

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Restructuring Expenses By Reporting Segment

Restructuring expense by reporting segment for the years ended December 31, 2019, 2018 and 2017 was as follows:

	Year Ended December 31,		
	2019	2018	2017
Automotive	\$ 9,353	\$ 5,548	\$ —
Industrial	1,838	5,607	—
Reconciling items	1,728	3,617	—
Total	<u>\$ 12,919</u>	<u>\$ 14,772</u>	<u>\$ —</u>

Restructuring Liability

The following table summarizes restructuring activity for all restructuring initiatives for the years ended December 31, 2019 and 2018:

	Employee Separation Costs	Accelerated Depreciation and Asset Impairment Charges	Other Related Costs	Total
	\$	\$	\$	\$
Balance at December 31, 2017	—	—	—	—
Additions, charged to restructuring expenses	8,449	2,507	3,816	14,772
Cash payments	(6,346)	—	(3,348)	(9,694)
Non-cash utilization	—	(2,507)	—	(2,507)
Reclassification to lease liability	—	—	—	—
Currency translation	(24)	—	—	(24)
Balance at December 31, 2018	<u>2,079</u>	<u>—</u>	<u>468</u>	<u>2,547</u>
Additions, charged to restructuring expenses	8,056	2,512	2,351	12,919
Cash payments	(4,118)	—	(2,636)	(6,754)
Non-cash utilization	—	(2,512)	—	(2,512)
Reclassification to lease liability	—	—	(112)	(112)
Currency translation	(23)	—	—	(23)
Balance at December 31, 2019	<u>\$ 5,994</u>	<u>\$ —</u>	<u>\$ 71</u>	<u>\$ 6,065</u>

Note 6 — Earnings Per Share

The Company's diluted earnings per share give effect to all potential common shares outstanding during a period that do not have an anti-dilutive impact to the calculation. The following summarizes the shares included in the dilutive shares as disclosed in the consolidated statements of income:

	Year Ended December 31,		
	2019	2018	2017
Weighted average number of shares for calculation of basic EPS – Common Stock	33,120,076	35,920,782	36,720,749
Stock options, restricted stock awards and restricted stock units under equity incentive plans	177,513	256,362	92,970
Weighted average number of shares for calculation of diluted EPS – Common Stock	<u>33,297,589</u>	<u>36,177,144</u>	<u>36,813,719</u>

The accompanying table represents Common Stock issuable upon the exercise of certain stock options and that have been excluded from the diluted earnings calculation because the effect of their inclusion would be anti-dilutive.

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(In thousands, except share and per share data)

	Year Ended December 31,		
	2019	2018	2017
Stock options outstanding for equity incentive plans	214,000	898,250	2,055,784

See Note 18 for information about the Company's different equity incentive plans.

Note 7 — Segment Reporting

Segment information is used by management for making operating decisions for the Company. Management evaluates the performance of the Company's segments based primarily on operating income or loss.

The Company's reportable segments are as follows:

- *Automotive* — this segment represents the design, development, manufacturing and sales of automotive climate comfort systems, specialized automotive cable systems, battery thermal management, and automotive electronic systems.
- *Industrial* — this segment represents the combined results from our Medical business, GPT (through October 1, 2019), CSZ-IC (through February 1, 2019) and Gentherm's advanced research and development division. The operating results from these businesses and division are presented together as one reporting segment because of their historical joint concentration on identifying new markets and product applications based on thermal management technologies.
- *Reconciling Items* — include corporate selling, general and administrative costs and acquisition transaction costs.

The tables below present segment information about the reported product revenues and operating income of the Company for years ended December 31, 2019, 2018 and 2017. With the exception of goodwill, asset information by segment is not reported since the Company does not manage assets at a segment level.

	Automotive	Industrial	Reconciling Items	Consolidated Total
2019:				
Product revenues	\$ 920,225	\$ 51,459	\$ —	\$ 971,684
Depreciation and amortization	40,765	1,779	1,702	44,246
Operating income (loss)	149,514	(14,043)	(51,211)	84,260
2018:				
Product revenues	\$ 957,824	\$ 90,681	\$ —	\$ 1,048,505
Depreciation and amortization	43,621	4,384	2,633	50,638
Operating income (loss)	152,051	(22,530)	(56,733)	72,788
2017:				
Product revenues	\$ 886,600	\$ 107,391	\$ —	\$ 993,991
Depreciation and amortization	36,801	5,399	2,772	44,972
Operating income (loss)	166,378	(14,751)	(54,529)	97,098

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Automotive and Industrial segment product revenues by product category for each of the years ended December 31, 2019, 2018 and 2017 are as follows:

	2019	2018	2017
Climate Control Seat (CCS)	\$ 359,355	\$ 373,945	\$ 387,961
Seat Heaters	284,174	305,337	307,308
Automotive Cables	88,031	98,931	92,092
Steering Wheel Heaters	65,426	69,845	62,125
Electronics	47,542	56,783	8,816
Battery Thermal Management (BTM)	41,498	28,472	10,046
Other Automotive	34,199	24,511	18,252
Subtotal Automotive	920,225	957,824	886,600
Medical	36,860	30,108	30,375
GPT	11,181	19,520	32,282
CSZ-IC	3,418	41,053	44,734
Subtotal Industrial	51,459	90,681	107,391
Total Company	\$ 971,684	\$ 1,048,505	\$ 993,991

Revenue (based on shipment destination) by geographic area for each of the years ended December 31, 2019, 2018 and 2017 is as follows:

	2019	2018	2017
United States	\$ 440,316	\$ 488,926	\$ 454,669
Germany	81,315	88,366	71,768
Japan	76,197	62,633	57,467
China	71,461	93,628	93,645
South Korea	63,339	58,717	64,715
Czech Republic	38,888	42,665	38,828
Canada	37,804	44,500	46,368
United Kingdom	31,357	37,533	36,033
Romania	26,213	22,435	18,050
Other	104,794	109,102	112,448
Total Non-U.S.	531,368	559,579	539,322
Total Company	\$ 971,684	\$ 1,048,505	\$ 993,991

The table below lists the percentage of total product revenues generated from sales to customers which contributed 10% or more to the Company's total consolidated product revenue:

	2019	2018	2017
Lear	16%	17%	20%
Adient	15%	16%	18%

GENTHERM INCORPORATED
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except share and per share data)

Property and equipment, net, for each of the geographic areas in which the Company operates is as follows:

	December 31,	
	2019	2018
Property and equipment, net		
Macedonia	\$ 38,989	\$ 39,664
China	23,721	26,108
Vietnam	21,452	20,768
United States	21,280	24,122
Mexico	19,982	26,119
Ukraine	11,727	10,670
Germany	10,515	9,874
Hungary	6,803	7,546
Other	6,136	6,509
Total	<u>\$ 160,605</u>	<u>\$ 171,380</u>

Note 8 –Revenue Recognition

The principal activity from which the Company generates its revenue is the manufacturing of production parts for automotive OEMs and automotive suppliers, as well as the sale of medical products and equipment primarily through distributor and group purchasing organization agreements.

Contract Balances

We record a receivable when revenue is recognized at the time of invoicing and unearned revenue when revenue is recognized subsequent to invoicing. For contracts where control of the goods or service is transferred to the customer over time, or whose terms required the customer to make milestone payments throughout the fulfillment period, the timing of revenue recognition is likely to differ from the timing of invoicing to customers.

Most of Gentherm's unearned revenue pertains to LTAs containing a material right. In the early periods of an LTA containing a material right, when payments collected from the customer are greater than the standalone selling price of the production parts, revenue associated with the material right is deferred. In future periods, when amounts collected from customers as payment is less than the standalone selling price of the production parts delivered, the deferred revenue is reversed into revenue. For LTAs containing a material right and, thus, the timing of revenue recognition is likely to differ from the timing of invoicing to customer, the aggregate amount of transaction price allocated to material rights that remained unsatisfied under LTAs as of December 31, 2019 was \$579. We expect to recognize into revenue, 69% of this balance in 2020, and the remaining 11%, 11% and 9% in 2021, 2022 and 2023, respectively.

Unearned revenue by segment was as follows:

	December 31, 2019	December 31, 2018
Automotive	\$ 579	\$ 1,597
Industrial	—	—
Total	<u>\$ 579</u>	<u>\$ 1,597</u>

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(In thousands, except share and per share data)

Changes in unearned revenue for the year ended December 31, 2019 were as follows:

Balance, beginning of period	\$	1,597
Additions to unearned revenue		234
Reclassified to revenue		(1,238)
Currency impacts		(14)
Balance, end of period	\$	<u>579</u>

Revenue allocated to remaining performance obligations represent contracted revenue that has not yet been recognized, which includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods.

Note 9 — Income Taxes**U.S. Tax Reform**

The Tax Cuts and Jobs Act (“Tax Act”) was enacted on December 22, 2017. The Tax Act reduced the U.S. federal corporate income tax rate from 35% to 21% beginning in 2018, required companies to pay a one-time transition tax on all offshore earnings that were previously tax deferred and created new taxes on certain foreign sourced earnings. In March 2018, the FASB issued ASU 2018-05, “Income Taxes – Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118”. The guidance provided for a provisional one-year measurement period for entities to finalize their accounting for certain tax effects related to the Tax Act. As of December 31, 2017, the Company made a provisional estimate of \$20,153 for the effects on our existing deferred tax balances, the one-time transition tax and our indefinite reinvestment assertion regarding foreign subsidiary earnings in accordance with the guidance.

As of December 31, 2018, the Company evaluated the provisional amounts initially recorded for the year ended December 31, 2017 and recorded adjustments based on updates to the Company’s assumptions and the application of additional interpretative guidance as issued during 2018. The adjustments are primarily a result of refining the net deferred tax asset position with the completion of our 2017 U.S. income tax return and changing tax accounting methods that affected the timing of certain US tax deductions. These adjustments resulted in (i) a decrease in our existing deferred tax asset balances which resulted in an income tax expense of \$4,950 and (ii) a net increase to the one-time transition tax which resulted in an income tax expense of \$24,625. No adjustment was required to the \$9,578 tax benefit included in the provision for income taxes as of December 31, 2017 to offset the one-time transition tax related to the previous deferred tax liability that existed for the undistributed foreign earnings that were not permanently reinvested. As of December 31, 2018, the total income tax expense was \$19,997 for the year ended December 31, 2017, as compared to the provisional estimate of \$20,153. The Company also analyzed the impact of several new provisions of the Tax Act that became effective as of January 1, 2018, such as global intangible low-taxed income (“GILTI”) provision, foreign-derived intangible income (“FDII”) deduction, a new minimum tax related to payment to foreign subsidiaries and affiliates known as base erosion anti-abuse tax (“BEAT”), interest expense limitations under Internal Revenue Code (“IRC”) section 163(j), executive compensation limitations under IRC section 162(m) and various other provisions.

The GILTI provision imposes a tax on certain earnings of foreign subsidiaries. U.S. GAAP allows companies to make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred. We have elected to account for GILTI in the year the tax is incurred.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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The deferred tax assets and deferred tax liabilities and related valuation allowance were comprised of the following:

	December 31,	
	2019	2018
Deferred tax assets:		
Net operating losses	\$ 17,881	\$ 7,666
Intangible assets	33,609	42,853
Research and development credits	9,752	8,211
Depreciation	7,223	6,321
Valuation reserves and accrued liabilities	7,196	4,849
Foreign tax credit	262	376
Stock compensation	3,485	4,128
Inventory	1,284	1,069
Patents	134	150
Defined benefit obligation	2,027	1,796
Other credits	11,491	3,701
Other	\$ 114	89
Total deferred tax asset	94,458	81,209
Valuation allowance	(28,763)	(9,977)
Deferred tax liabilities:		
Unrealized foreign currency exchange gains	(674)	(554)
Undistributed profits of subsidiary	(4,629)	(4,352)
Property and equipment	(3,366)	(2,896)
Other	(733)	(583)
Total deferred tax liability	(9,402)	(8,385)
Net deferred tax asset	\$ 56,293	\$ 62,847

Reconciliations between the statutory Federal income tax rate and the effective rate of income tax expense for each of the three years in the period ended December 31, 2019 are as follows:

	Year Ended December 31,		
	2019	2018	2017
Statutory Federal income tax rate	21.0%	21.0%	34.0%
Increase (decrease) resulting from:			
Change in Valuation Allowance	30.7%	(6.6)%	10.6%
Effect of different tax rates of foreign jurisdictions	(24.8)%	(6.6)%	(20.8)%
US Tax Reform Items	4.3%	10.8%	29.1%
Research and Development Credits	(2.3)%	(2.5)%	(4.6)%
Non-deductible expenses	2.1%	3.4%	2.4%
Foreign, state and local tax, net of Federal benefit	1.7%	1.8%	0.8%
Tax effects of intercompany transfers	1.5%	0.8%	(5.0)%
Undistributed profit of subsidiaries	1.2%	1.2%	5.8%
Other	1.2%	4.6%	(1.0)%
Stock Compensation Expense	0.0%	0.0%	(2.2)%
Effective Rate	36.6%	27.9%	49.1%

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

The Company has Net Operating Loss (“NOL”) carryforwards as follows:

Jurisdiction		Amount as of December 31, 2019	Years of Expiration
U.S. Federal and state income tax	\$	85,828	2020-2039
Foreign	\$	13,153	2020-2024
Foreign	\$	109,665	Never

A portion of the U.S. Federal NOLs was incurred prior to the June 8, 1999 Preferred Financing, which qualified as a change in ownership under Section 382 of the Internal Revenue Code (“IRC”). Due to this change in ownership, the NOL accumulated prior to the change in control can only be utilized against current earnings up to a maximum annual limitation of approximately \$591. As a result of the annual limitation, approximately \$19,349 in NOLs generated prior to the change in control have already expired without being utilized. No further NOL is available to be utilized in future periods.

We have incurred NOLs in various states associated with the benefits of the state dividends received reduction along with the foreign royalty exclusion. The state net operating loss carryforwards expire at various dates from 2020 to 2039. Management has concluded that it is more likely than not that a majority of these NOLs will not be utilized, and thus has not recognized the benefit of these NOLs.

At December 31, 2019, certain non-U.S. subsidiaries have net operating loss carryforwards totaling \$122,818. This amount includes \$13,153 in NOLs that expire at various dates from 2020 through 2024 and the remaining \$109,665 have no expiration date. The Company has a valuation allowance recorded against \$110,012 of the total non-U.S. subsidiaries’ net operating loss carryforwards as of December 31, 2019.

The earnings before income taxes and our tax provision are comprised of the following:

	Year Ended December 31,		
	2019	2018	2017
Income (loss) before income taxes:			
Domestic	\$ 74,531	\$ 10,092	\$ 1,258
Foreign	(15,380)	48,027	67,997
Total income before income taxes	\$ 59,151	\$ 58,119	\$ 69,255
	Year Ended December 31,		
	2019	2018	2017
Current income tax expense (benefit):			
Federal	\$ 262	\$ 340	\$ 4,140
State and local	94	(71)	150
Foreign	17,672	9,224	24,672
Total current income tax expense	18,028	9,493	28,962
Deferred income tax expense (benefit):			
Federal	(2,490)	(1,422)	15,207
State and local	(1)	20	2,308
Foreign	6,108	8,129	(12,449)
Total deferred income tax expense	3,617	6,727	5,066
Total tax expense	\$ 21,645	\$ 16,220	\$ 34,028

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

As of December 31, 2019, deferred income taxes have not been provided on the undistributed earnings of the Company's foreign subsidiaries since these earnings will not be taxable upon repatriation to the United States. These earnings will be primarily treated as previously taxed income from either the one-time transition tax or GILTI, or they will be offset with a 100% dividend received deduction. However, the Company continues to provide a deferred tax liability for foreign withholding tax that will be incurred with respect to the undistributed foreign earnings that are not permanently reinvested.

The Company is subject to taxation in the United States and various state and foreign jurisdictions. As of December 31, 2019, the Company is no longer subject to U.S. Federal examinations by tax authorities for tax years before 2015 and is no longer subject to foreign examinations by tax authorities for tax years before 2012.

During 2015, to entice the Company to construct a new facility in Macedonia, the government of Macedonia granted the Company a tax holiday that released the Company from the obligation to pay corporate income taxes for a ten year period, subject to certain limitations. The amount of corporate income tax savings realized by the Company as a result of this tax holiday during 2019 and 2018, respectively, was zero as a result of operating losses generated during previous periods. The aggregate dollar effect and per share effect of the corporate income tax holiday during 2019 and 2018 was, therefore, immaterial.

At December 31, 2019, 2018 and 2017, the Company had total unrecognized tax benefits of \$3,795, \$2,819 and \$3,812, respectively, all of which, if recognized, would affect the effective income tax rates. The reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Year Ended December 31,					
	2019		2018		2017	
Balance at beginning of year	\$	2,819	\$	3,812	\$	3,877
Additions based on tax position related to current year		661		221		1,758
Additions based on tax position related to prior year		352		423		(105)
Reductions from settlements and statute of limitation expiration		—		(1,469)		(2,247)
Effect of foreign currency translation		(37)		(168)		529
Balance at end of year	\$	3,795	\$	2,819	\$	3,812

The Company classifies income tax-related penalties and net interest as income tax expense. In the years ended December 31, 2019, 2018 and 2017 income tax related interest and penalties were insignificant. It is reasonably possible that audit settlements, the conclusions of current examinations or the expiration of the statute of limitations in several jurisdictions could impact the Company's unrecognized tax benefits. If recognized, all of the Company's gross unrecognized tax benefits would affect the Company's effective tax rate.

Note 10 — Pension and Other Post Retirement Benefit Plans

The Company maintains a U.S. defined benefit pension plan covering its former Chief Executive Officer ("U.S. Plan") and a German defined benefit pension plan covering certain retired executive employees of the Company's wholly owned subsidiary, Gentherm GmbH ("German Plan").

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

The components of net periodic benefit cost for the Company's defined benefit plans for the years ended December 31, 2019, 2018 and 2017 were as follows:

	U.S. Plan			German Plan		
	Year Ended December 31,			Year Ended December 31,		
	2019	2018	2017	2019	2018	2017
Net periodic benefit cost:						
Service cost	\$ —	\$ —	\$ 101	\$ —	\$ —	\$ —
Interest cost	127	114	111	147	147	130
Expected return on plan assets	—	—	—	(126)	(130)	(121)
Amortization of prior service cost and actuarial loss	—	—	509	72	73	78
Net periodic benefit cost	\$ 127	\$ 114	\$ 721	\$ 93	\$ 90	\$ 87
Assumptions:						
Discount rate	3.65%	2.95%	3.25%	1.06%	2.04%	1.93%
Long-term return on assets	N/A	N/A	N/A	3.10%	3.40%	3.40%

A reconciliation of the change in benefit obligation and the change in plan assets for the years ended December 31, 2019 and 2018 is as follows:

	U.S. Plan		German Plan	
	As of December 31,		As of December 31,	
	2019	2018	2019	2018
Change in projected benefit obligation:				
Balance at beginning of year	\$ 3,832	\$ 4,218	\$ 7,529	\$ 7,927
Interest cost	127	114	147	147
Paid pension distributions	(342)	(342)	(285)	(292)
Actuarial (gains) losses	254	(158)	1,116	114
Exchange rate impact	—	—	(154)	(367)
Balance at end of year	\$ 3,871	\$ 3,832	\$ 8,353	\$ 7,529
Change in plan assets:				
Balance at beginning of year	\$ —	\$ —	3,808	3,891
Actual return on plan assets	—	—	126	130
Contributions	—	—	284	292
Paid pension distributions	—	—	(284)	(292)
Actuarial losses	—	—	(30)	(30)
Exchange rate impact	—	—	(79)	(183)
Balance at end of year	\$ —	\$ —	\$ 3,825	\$ 3,808
Funded Status (underfunded)/overfunded	\$ (3,871)	\$ (3,832)	\$ (4,528)	\$ (3,721)
Balance sheet classification:				
Other current liabilities	(342)	(342)	—	—
Pension benefit obligation	(3,529)	(3,490)	(4,528)	(3,721)
Accumulated other comprehensive loss (pre-tax):				
Actuarial losses	476	222	3,398	2,372
Assumptions:				
Discount rate	2.40%	3.65%	1.06%	2.04%

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Pre-tax amounts included in AOCI that are expected to be recognized in net periodic benefit cost during the year ended December 31, 2020 are as follows:

	U.S Plan	German Plan
Actuarial losses	\$ 7	\$ 122

The accumulated benefit obligations were as follows:

	U.S. Plan		German Plan	
	As of December 31,		As of December 31,	
	2019	2018	2019	2018
Accumulated benefit obligation	\$ 3,871	\$ 3,832	\$ 8,529	\$ 7,894

Interest costs are recognized in selling, general and administrative expenses in the Company's consolidated statements of income and actuarial gains and losses are included in the Company's consolidated balance sheet as part of accumulated other comprehensive loss within shareholders' equity. Actuarial gains or losses are amortized to selling, general and administrative expense in the Company's consolidated statements of income based on the average future life of the Plan using the corridor method. Prior service cost is included in selling, general and administrative expenses in the Company's consolidated statements of income.

Plan assets – German Plan

Plan assets are comprised of Gentherm GmbH's pension insurance policies and are pledged to the beneficiaries of the German Plan. A market valuation technique, based on observable underlying insurance charges, is used to determine the fair value of the pension plan assets (Level 2).

The expected return on plan assets assumption used to calculate Gentherm GmbH's pension benefit obligation was determined using actual returns realized on plan assets in the prior year.

Other assets

Although the U.S. Plan is not funded, the Company has established a separate trust having the sole purpose of paying benefits under the U.S. Plan. The only asset of the trust is a corporate-owned life insurance policy ("COLI"). The COLI is valued at fair value using quoted prices listed in active markets (Level 1). The policy value of the COLI was \$2,592 and \$2,148 as of December 31, 2019 and 2018, respectively, and is included in other non-current assets in the Company's consolidated balance sheets.

Contributions

We do not expect contributions to be paid to the U.S. Plan or the German Plan during the next fiscal year.

The schedule of future expected pension payments is as follows:

	Projected Pension Benefit Payments			
	U.S Plan	U.S Plan	German Plan	German Plan
2020	\$	342	\$	289
2021		342		287
2022		342		283
2023		342		293
2024		342		287
2025-2029		1,710		2,839
Total	\$	3,420	\$	4,278

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Defined contribution plans

The Company also sponsors defined contribution plans for eligible employees. On a discretionary basis, the Company matches a portion of the employee contributions and or makes additional discretionary contributions. Gentherm recognized costs of \$1,384, \$1,471 and \$1,396 related to contributions to its defined contribution plans during the years ended December 31, 2019, 2018 and 2017, respectively.

Note 11 — Goodwill and Other Intangibles

Goodwill

Changes in the carrying amount of goodwill, by reportable segment, for the years ended December 31, 2019 and 2018 were as follows:

	Automotive	Industrial	Total
December 31, 2017	\$ 38,912	\$ 30,773	\$ 69,685
Reclassifications to assets held for sale	—	(6,844)	(6,844)
Impairment of goodwill (a)	—	(6,151)	(6,151)
Exchange rate impact	(1,379)	—	(1,379)
December 31, 2018	\$ 37,533	\$ 17,778	\$ 55,311
Stihler acquisition	—	9,816	9,816
Exchange rate impact	(595)	40	(555)
December 31, 2019	<u>\$ 36,938</u>	<u>\$ 27,634</u>	<u>\$ 64,572</u>

a) See Note 4, "Acquisitions and Divestitures" for a description of the impairment of goodwill.

Other Intangible Assets

Other intangible assets and accumulated amortization balances as of December 31, 2019 and 2018 were as follows:

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Definite-lived:			
Customer relationships	\$ 89,208	\$ (50,687)	\$ 38,521
Technology	25,106	(19,866)	5,240
Product development costs	19,911	(18,559)	1,352
Indefinite-lived:			
Tradenames	4,670	—	4,670
Balance as of December 31, 2019	<u>\$ 138,895</u>	<u>\$ (89,112)</u>	<u>\$ 49,783</u>
Definite-lived:			
Customer relationships	\$ 87,316	\$ (44,269)	\$ 43,047
Technology	25,110	(18,616)	6,494
Product development costs	20,487	(18,313)	2,174
Indefinite-lived:			
Tradenames	4,670	—	4,670
Balance as of December 31, 2018	<u>\$ 137,583</u>	<u>\$ (81,198)</u>	<u>\$ 56,385</u>

In connection with the acquisition of Stihler, the Company recorded intangible assets including customer relationships and technology of \$3,420 and \$538, respectively. These definite-lived assets are being amortized using the straight-line method over their estimated useful lives of approximately 9 years and 7 years, respectively.

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A total of \$10,068, \$14,043 and \$12,425 in other intangible assets, including capitalized patent costs, were amortized in 2019, 2018 and 2017, respectively.

An estimate of other intangible asset amortization by year, is as follows:

2020	\$	8,644
2021		7,700
2022		7,225
2023		4,082
2024		3,033

Impairment Charges

During 2018, Gentherm determined GPT and CSZ-IC met the held for sale criteria, described above, and recorded an impairment loss on assets held for sale, goodwill and other intangible assets of \$2,190, \$6,151 and \$3,135, respectively.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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Note 12 — Details of Certain Financial Statement Components

	December 31,	
	2019	2018
Inventory:		
Raw materials, net of reserve	\$ 61,323	\$ 61,679
Work in process, net of reserve	7,444	5,939
Finished goods, net of reserve	49,712	44,917
Total inventory, net	<u>\$ 118,479</u>	<u>\$ 112,535</u>
Other current assets:		
Income tax and other tax receivables	\$ 17,057	\$ 28,887
Notes receivable	9,963	9,837
Prepaid expenses	7,022	6,962
Billable tooling	5,194	6,475
Short-term derivative financial instruments	1,242	92
Other	2,248	2,110
Total other current assets	<u>\$ 42,726</u>	<u>\$ 54,363</u>
Property and equipment:		
Buildings and improvements	\$ 90,675	\$ 88,950
Plant and equipment	137,813	125,487
Information technology	27,697	26,381
Production tooling	19,906	15,526
Leasehold improvements	11,116	10,320
Construction in progress	\$ 2,856	\$ 3,421
Total property and equipment	290,063	270,085
Less: Accumulated depreciation	(129,458)	(98,705)
Total property and equipment, net	<u>\$ 160,605</u>	<u>\$ 171,380</u>
Other current liabilities:		
Accrued employee liabilities	\$ 26,019	\$ 25,449
Liabilities from discounts and rebates	16,593	16,907
Income and other taxes payable	3,693	6,468
Restructuring	6,065	2,547
Accrued warranty	4,596	4,514
Other	9,617	9,923
Total other current liabilities	<u>\$ 66,583</u>	<u>\$ 65,808</u>

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(In thousands, except share and per share data)

Note 13 — Debt*Amended Credit Agreement*

As of December 31, 2018, the Company, together with certain direct and indirect subsidiaries, had a credit agreement (the “Credit Agreement”) which included a revolving credit note (“U.S. Revolving Note”) with a maximum borrowing capacity of \$350,000.

On June 27, 2019, the Company entered into an Amended and Restated Credit Agreement (the “Amended Credit Agreement”) with a consortium of lenders and Bank of America, N.A. as administrative agent. The Amended Credit Agreement amended and restated in its entirety the Credit Agreement. The outstanding principal and interest of the U.S. Revolving Note under the Credit Agreement continued and constitute obligations under the Amended Credit Agreement.

The Amended Credit Agreement increased the U.S. Revolving Note from \$350,000 to \$475,000 and extended the maturity from March 17, 2021 to June 27, 2024. Subject to specified conditions, the Company can increase the U.S. Revolving Note or incur secured term loans in an aggregate amount of \$175,000. The Amended Credit Agreement also provides \$15,000 availability for the issuance of letters of credit and a maximum of \$40,000 for swing line borrowing. Any amount of the facility utilized for letters of credit or swing line loans outstanding will reduce the amount available under the Amended Credit Agreement. The Company had \$0 and \$455 of outstanding letters of credit issued under the Amended Credit Agreement as of December 31, 2019 and 2018, respectively.

The U.S. borrowers and guarantors participating in the Amended Credit Agreement have entered into a related amended and restated pledge and security agreement. The amended and restated pledge and security agreement grants a security interest to the lenders in substantially all of the personal property of the Company and its U.S. subsidiaries designated as borrowers to secure their respective obligations under the Amended Credit Agreement, including the stock and membership interests of specified subsidiaries (limited to 66% of the stock in the case of certain non-U.S. subsidiaries). In addition to the security obligations, all obligations under the Amended Credit Agreement are unconditionally guaranteed by certain of the Company’s subsidiaries. The Amended Credit Agreement restricts, among other things, the amount of dividend payments the Company can make to shareholders.

The Amended Credit Agreement contains customary affirmative and negative covenants that will prohibit or limit the ability of the Borrowers and any material subsidiary to, among other things, incur additional indebtedness, create liens, pay dividends, make certain types of investments (including acquisitions), enter into certain types of transactions with affiliates, prepay other indebtedness, sell assets, merge with other companies or enter into certain other transactions outside the ordinary course of business requires the Company and its subsidiaries to comply with customary affirmative and negative covenants, and contain customary events of default. These restrictions on the Company’s material subsidiaries have not had and are not expected to have a material impact on the Company’s ability to meet its cash obligations. The Amended Credit Agreement also requires the Company to maintain a minimum Consolidated Interest Coverage Ratio and Consolidated Leverage Ratio, as defined in the agreement.

Under the Amended Credit Agreement, U.S. Dollar denominated loans bear interest at either a base rate (“Base Rate Loans”) or Eurocurrency rate (“Eurocurrency Rate Loans”), plus a margin (“Applicable Rate”). The rate for Base Rate Loans is equal to the highest of the Federal Funds Rate (1.55% at December 31, 2019) plus 0.50%, Bank of America’s prime rate (4.75% at December 31, 2019), or the Eurocurrency rate plus 1.00%. The rate for Eurocurrency Rate Loans denominated in U.S. Dollars is equal to the London Interbank Offered Rate (1.76% at December 31, 2019). All loans denominated in a currency other than the U.S. Dollar must be Eurocurrency Rate Loans. Interest is payable at least quarterly.

The Applicable Rate varies based on the Consolidated Leverage Ratio reported by the Company. As long as the Company is not in default of the terms and conditions of the Amended Credit Agreement, the lowest and highest possible Applicable Rate is 1.25% and 2.25%, respectively, for Eurocurrency Rate Loans and 0.25% and 1.25%, respectively, for Base Rate Loans.

In connection with the Amended Credit Agreement, the Company incurred debt issuance costs of \$1,278 which have been capitalized and will be amortized into interest expense over the term of the credit facility.

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(In thousands, except share and per share data)

DEG Vietnam Loan

The Company also has a fixed interest rate loan with the German Investment Corporation (“DEG”), a subsidiary of KfW Banking Group, a Germany government-owned development bank. The fixed interest rate senior loan agreement with DEG was used to finance the construction and set up of the Vietnam production facility (“DEG Vietnam Loan”). The DEG Vietnam Loan is subject to semi-annual principal payments that began November, 2017 and will end May, 2023. Under the terms of the DEG Vietnam Loan, the Company must maintain a minimum Equity Ratio and Enhanced Equity Ratio, as defined by the DEG Vietnam Loan agreement, based on the financial statements of Gentherm’s wholly owned subsidiary, Gentherm Vietnam Co. Ltd.

DEG China Loan

The Company had a second DEG loan, which was used to fund capital investments in China (the “DEG China Loan”). The DEG China Loan was subject to semi-annual principal payments that began March 2015 and ended in September 2019. During the third quarter of 2019, the DEG China Loan was paid in full.

As of December 31, 2019, we were in compliance, in all material respects, with all terms as outlined in the Amended Credit Agreement and DEG Vietnam Loan. Undrawn borrowing capacity under the U.S. Revolving Note was \$403,378 as of December 31, 2019. The following table summarizes the Company’s debt as of December 31, 2019 and 2018.

	December 31,			
	2019		2018	
	Interest Rate	Principal Balance	Interest Rate	Principal Balance
Amended Credit Agreement:				
U.S. Revolving Note (U.S. Dollar Denominations)	3.05%	\$ 50,000	4.02%	\$ 122,000
U.S. Revolving Note (Euro Denominations)	1.25%	21,874	1.50%	5,727
DEG Vietnam Loan	5.21%	8,750	5.21%	11,250
DEG China Loan	—	—	4.25%	913
Total debt		80,624		139,890
Current maturities		(2,500)		(3,413)
Long-term debt, less current maturities		<u>\$ 78,124</u>		<u>\$ 136,477</u>

The scheduled principal maturities of our debt as of December 31, 2019 is as follows:

Year	U.S. Revolving Note	DEG Vietnam Note	Total
2020	\$ —	\$ 2,500	\$ 2,500
2021	—	2,500	2,500
2022	—	2,500	2,500
2023	—	1,250	1,250
2024	71,874	—	71,874
Total	<u>\$ 71,874</u>	<u>\$ 8,750</u>	<u>\$ 80,624</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Note 14 —Financial Instruments*Cash, cash equivalents and restricted cash*

The Company has cash that is legally restricted as to use or withdrawal. A reconciliation of cash and cash equivalents on the consolidated balance sheets to cash, cash equivalents and restricted cash presented on the consolidated statements of cash flows is as follows:

	As of December 31,	
	2019	2018
Cash and cash equivalents presented in the consolidated balance sheets	\$ 50,443	\$ 39,620
Restricted cash	\$ 2,505	\$ —
Cash, cash equivalents and restricted cash presented in the consolidated statements of cash flows	\$ 52,948	\$ 39,620

Derivative Financial Instruments

The Company is exposed to various market risks including, but not limited to, changes in foreign currency exchange rates, changes in interest rates and commodity price fluctuations. Market risks for changes in interest rates relate primarily to its debt obligations under the Amended Credit Agreement. Foreign currency exchange risks are attributable to sales to foreign customers and purchases from foreign suppliers not denominated in a location's functional currency, foreign plant operations, intercompany indebtedness, intercompany investments and include exposures to the Euro, Mexican Peso, Canadian Dollar, Hungarian Forint, Macedonian Denar, Ukrainian Hryvnia, Japanese Yen, Chinese Renminbi, Korean Won and Vietnamese Dong.

The Company regularly enters into derivative contracts with the objective of managing its financial and operational exposure arising from these risks by offsetting gains and losses on the underlying exposures with gains and losses on the financial instruments used to hedge them. The maximum length of time over which the Company hedges its exposure to foreign currency exchange risks is one year. The Company had foreign currency derivative contracts with a notional value of \$14,449 and \$33,250 outstanding at December 31, 2019 and 2018, respectively. The principal currency hedged by the Company was the Mexican Peso.

The Company does not enter into derivative financial instruments for speculative or trading purposes. The Company's hedging relationships are formally documented at the inception of the hedge, and hedges must be highly effective in offsetting changes to future cash flows on hedged transactions both at the inception of a hedge and on an ongoing basis to be designated for hedge accounting treatment. For derivative contracts which can be classified as a cash flow hedge, the effective portion of the change in the fair value of the derivative is recorded to accumulated other comprehensive loss in the consolidated balance sheets. When the underlying hedge transaction is realized, the gain or loss included in accumulated other comprehensive loss is recorded in earnings in the consolidated statements of income on the same line as the gain or loss on the hedged item attributable to the hedged risk. The Company records the ineffective portion of foreign currency hedging instruments, if any, to foreign currency gain (loss) in the consolidated statements of income.

The Company uses an income approach to value derivative instruments, analyzing quoted market prices to calculate the forward values and then discounts such forward values to the present value using benchmark rates at commonly quoted intervals for the instrument's full term.

Information related to the recurring fair value measurement of derivative financial instruments in the consolidated balance sheet as of December 31, 2019 is as follows:

	Hedge Designation	Fair Value Hierarchy	Asset Derivatives		Liability Derivatives		Net Asset/ (Liabilities)
			Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	
Foreign currency derivatives	Cash flow hedge	Level 2	Other current assets	\$ 1,242	Other current liabilities	\$ —	\$ 1,242

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Information related to the recurring fair value measurement of derivative financial instruments in the consolidated balance sheet as of December 31, 2018 is as follows:

	Hedge Designation	Fair Value Hierarchy	Asset Derivatives		Liability Derivatives		Net Asset/ (Liabilities)
			Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	
Foreign currency derivatives	Cash flow hedge	Level 2	Other current assets	\$ 92	Other current liabilities	\$ —	\$ 92

Information related to the effect of derivative instrument`s on the consolidated statements of income is as follows:

	Location	Year Ended December 31,	
		2019	2018
Foreign currency derivatives	Cost of sales	\$ 1,976	\$ (444)
	Selling, general and administrative	—	75
	Other comprehensive income	1,151	1,096
	Foreign currency gain (loss)	(46)	50
Total foreign currency derivatives		3,081	777
Commodity derivatives	Cost of sales	—	145
	Other comprehensive income	—	(218)
Total commodity derivatives		\$ —	\$ (73)

The Company did not incur any hedge ineffectiveness during the years ended December 31, 2019 and 2018.

Note 15 — Fair Value Measurement

Fair value is defined as the exchange price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Fair value measurements are based on one or more of the following three valuation techniques:

Market: This approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Income: This approach uses valuation techniques to convert future amounts to a single present value amount based on current market expectations.

Cost: This approach is based on the amount that would be required to replace the service capacity of an asset (replacement cost).

The Company uses the following fair value hierarchy to measure fair value into three broad levels, which are described below:

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Inputs, other than quoted market prices included in Level 1, that are observable either directly or indirectly for the asset or liability.

Level 3: Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Items Measured at Fair Value on a Recurring Basis

Except for derivative financial instruments (see Note 14), pension plan assets (see Note 10) and a corporate owned life insurance policy (see Note 10), the Company has no material financial assets and liabilities that are carried at fair value at December 31, 2019 and 2018. In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and also considers counterparty credit risk in its assessment of fair value.

Items Measured at Fair Value on a Nonrecurring Basis

The Company measures certain assets and liabilities at fair value on a non-recurring basis. As these nonrecurring fair value measurements are generally determined using unobservable inputs, these fair value measurements are classified within Level 3 of the fair value hierarchy. As further described in "Note 4, "Acquisitions and Divestitures", the Company utilized a third-party to assist in the Level 3 fair value estimates of \$4,380 related to other intangible assets. The estimated fair values of these assets were based on third-party valuations and management's estimates, generally utilizing the income approach.

As of December 31, 2019 and 2018, there were no additional significant assets or liabilities measured at fair value on a non-recurring basis.

Items Not Carried at Fair Value

The Company uses an income valuation technique to measure the fair values of its debt instruments by converting amounts of future cash flows to a single present value amount using rates based on current market expectations (Level 2 inputs). As of December 31, 2019 and 2018, the carrying values of the Company's Credit Agreement indebtedness were not materially different than their estimated fair values because the interest rates on variable rate debt approximated rates currently available to the Company (see Note 13). Discount rates used to measure the fair value of Gentherm's DEG Vietnam Loan and DEG China Loan are based on quoted swap rates. As of December 31, 2019, the carrying value of the DEG Vietnam Loan was \$8,750 as compared to an estimated fair value of \$8,785. As of December 31, 2018, the carrying values of the DEG Vietnam Loan and DEG China Loan were \$11,250 and \$913, respectively, as compared to an estimated fair value of \$11,100 and \$900, respectively.

Note 16 — Equity*Common Stock*

The Company is authorized to issue up to 59,991,000 shares, of which 55,000,000 shares shall be common stock, without par value, and 4,991,000 shall be Preferred Stock, without par value. As of December 31, 2019, an aggregate of 32,674,354 of its common stock were issued and outstanding. As of December 31, 2019, there are no preferred stock shares issued or outstanding. The Company's common stock is listed on the Nasdaq Global Select Market under the symbol, "THRM", and has the following rights and privileges:

- *Voting rights.* All shares of the Company's common stock have identical rights and privileges. With limited exceptions, holders of common stock are entitled to one vote for each outstanding share of common stock held of record by each shareholder on all matters properly submitted for the vote of the Company's shareholders.
- *Dividend rights.* Subject to applicable law, any contractual restrictions and the rights of the holders of outstanding preferred stock, if any, holders of common stock are entitled to receive ratably such dividends and other distributions that the Company's Board of Directors, in its discretion, declares from time to time.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

- *Liquidation rights.* Upon the dissolution, liquidation or winding up of the Company, subject to the rights of the holders of outstanding preferred stock, if any, holders of common stock are entitled to receive ratably the assets of the Company available for distribution to the Company's shareholders in proportion to the number of shares of common stock held by each shareholder.
- *Conversion, Redemption and Preemptive Rights.* Holders of common stock have no conversion, redemption, sinking fund, preemptive, subscription or similar rights.

Stock Repurchase Program

In December 2016, the Board of Directors of Gentherm Incorporated ("Board of Directors") authorized a three-year, \$100 million stock repurchase program ("Stock Repurchase Program"). In June 2018, the Board of Directors authorized an increase and extension in the Stock Repurchase Program to \$300 million, and extended the Stock Repurchase Program until December 2020. Repurchases under the Stock Repurchase Program may be made, from time to time, in amounts and at prices the Company deems appropriate, subject to market conditions, applicable legal requirements, debt covenants and other considerations. Any such repurchases may be executed using open market purchases, privately negotiated agreements or other transactions. Repurchases under the Stock Repurchase Program may be funded from cash on hand, available borrowings or proceeds from potential debt or other capital markets sources. During the year ended December 31, 2019, the Company repurchased approximately \$63 million of shares with an average price paid per share of \$39.67 and have a remaining repurchase authorization of approximately \$83 million.

Note 17 – Reclassifications Out of Accumulated Other Comprehensive Income (Loss)

Reclassification adjustments and other activities impacting accumulated other comprehensive income (loss) during the years ended December 31, 2019, December 31, 2018 and December 31, 2017 are as follows:

	Defined Benefit Pension Plans	Foreign Currency Translation Adjustments	Foreign Currency Hedge Derivatives	Total
Balance at December 31, 2018	\$ (2,339)	\$ (37,157)	\$ (4)	\$ (39,500)
Other comprehensive income (loss) before reclassifications	(1,264)	(2,415)	2,259	\$ (1,420)
Income tax effect of other comprehensive income (loss) before reclassifications	232	(393)	(493)	\$ (654)
Amounts reclassified from accumulated other comprehensive income (loss) into net income	—	—	(1,108) ^a	\$ (1,108)
Income taxes reclassified into net income	—	—	241	\$ 241
Net current period other comprehensive income (loss)	(1,032)	(2,808)	899	(2,941)
Balance at December 31, 2019	<u>\$ (3,371)</u>	<u>\$ (39,965)</u>	<u>\$ 895</u>	<u>\$ (42,441)</u>

(a) The amounts reclassified from accumulated other comprehensive income (loss) are included in cost of sales. See Note 14 for information related to the effect of commodity and foreign currency derivative instrument's on our consolidated statements of income.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

	Defined Benefit Pension Plans	Foreign Currency Translation Adjustments	Commodity Hedge Derivatives	Foreign Currency Hedge Derivatives	Total
Balance at December 31, 2017	\$ (2,366)	\$ (17,555)	\$ 277	\$ (800)	\$ (20,444)
Cumulative effect of accounting change due to adoption of ASU 2018-02	(49)	—	9	—	(40)
Other comprehensive income (loss) before reclassifications	18	(19,212)	—	1,342	(17,852)
Income tax effect of other comprehensive income (loss) before reclassifications	(15)	(390)	—	(337)	(742)
Amounts reclassified from accumulated other comprehensive income (loss) into net income	73	—	(218) ^a	(246) ^a	(391)
Income taxes reclassified into net income	—	—	(68)	37	(31)
Net current period other comprehensive income (loss)	27	(19,602)	(277)	796	(19,056)
Balance at December 31, 2018	<u>\$ (2,339)</u>	<u>\$ (37,157)</u>	<u>\$ —</u>	<u>\$ (4)</u>	<u>\$ (39,500)</u>

(a) The amounts reclassified from accumulated other comprehensive income (loss) are included in cost of sales. See Note 14 for information related to the effect of commodity and foreign currency derivative instrument's on our consolidated statements of income.

	Defined Benefit Pension Plans	Foreign Currency Translation Adjustments	Commodity Hedge Derivatives	Foreign Currency Hedge Derivatives	Total
Balance at December 31, 2016	\$ (2,550)	\$ (65,762)	\$ 241	\$ (1,020)	\$ (69,091)
Other comprehensive income (loss) before reclassifications	166	48,059	254	2,123	50,602
Income tax effect of other comprehensive income (loss) before reclassifications	(60)	148	(93)	(570)	(575)
Amounts reclassified from accumulated other comprehensive income (loss) into net income	78	—	(199) ^a	(1,822) ^a	(1,943)
Income taxes reclassified into net income	—	—	74	489	563
Net current period other comprehensive income (loss)	184	48,207	36	220	48,647
Balance at December 31, 2017	<u>\$ (2,366)</u>	<u>\$ (17,555)</u>	<u>\$ 277</u>	<u>\$ (800)</u>	<u>\$ (20,444)</u>

(a) The amounts reclassified from accumulated other comprehensive income (loss) are included in cost of sales. See Note 14 for information related to the effect of commodity and foreign currency derivative instrument's on our consolidated statements of income.

We expect all of the existing gains and losses related to foreign currency and commodity derivatives reported in accumulated other comprehensive income as of December 31, 2019 to be reclassified into earnings during the twelve-month period ending December 31, 2020.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Note 18 — Accounting for Stock Based Compensation

On May 16, 2013, the Compensation Committee of the Company's Board of Directors (the "Board") approved the Gentherm Incorporated 2013 Equity Incentive Plan (the "2013 Plan"), covering 3,500,000 shares of our Common Stock. On May 19, 2017, the 2013 Plan was amended, increasing the amount of available shares by 2,000,000. The 2013 Plan permits the granting of various awards including stock options (including both nonqualified options and incentive options), stock appreciation rights ("SARs"), restricted stock and restricted stock units, performance shares and certain other awards to employees, outside directors and consultants and advisors of the Company. All shares of our Common Stock that remained available for issuance under the Amended and Restated 2006 Stock Incentive Plan (the "2006 Plan") and the Gentherm Incorporated 2011 Equity Incentive Plan (the "2011 Plan"), were reduced to zero; however, some options under the 2006 Plan are still outstanding. As of December 31, 2019, the Company had an aggregate of 1,308,458 shares of Common Stock available to issue under the 2013 Plan.

All plans are administered by the Compensation Committee of the Board. The selection of participants, allotment of shares, determination of price and other conditions are determined by the Compensation Committee at its sole discretion, subject to the terms of the applicable plan, in order to attract and retain personnel instrumental to the success of the Company. Stock options, for example, granted under such plans have lives for a period of up to ten years from the date of grant at an exercise price which is not less than the fair market value of the Common Stock on the date of the grant.

During the three-year period ended December 31, 2019, the Company has outstanding stock options, stock appreciation rights ("SARs"), restricted stock awards and restricted stock units to employees, directors and consultants. These awards become available to the recipient upon the satisfaction of a vesting condition, either based on a period of service or based on the performance of a specific achievement. For equity-based awards with a service condition, the requisite service period typically ranges between three to five years for employees and consultants and one year for directors. As of December 31, 2019, there were 190,080 performance-based restricted stock units ("PSUs") outstanding. These awards vest over a three-year period after the Company's achievement of either a target return on invested capital ratio ("ROIC"), as defined in the award agreement, for a specified fiscal year, or the Company's common stock market price returning a target total shareholder return ("TSR"), as defined, during a specific three-year measurement period. Approximately one-half of the PSUs are earned based on the ROIC condition, while the other one-half are earned based on the TSR condition. In each case, awards will be earned at 50% of the target number of shares for achieving a minimum threshold or up to 200% of the target number of shares for exceeding the target, with a linear adjustment between threshold and target or between target and stretch performance goals. All other outstanding, unvested equity-based awards were service based. Equity-based award vesting may be accelerated at the discretion of the Board under conditions specified in the applicable plan.

Under FASB ASC Topic 718, the provisions of the PSUs that vest upon the achievement of relative TSR are considered a market condition, and therefore the effect of that market condition is reflected in the grant date fair value for this portion award. A third party was engaged to complete a "Monte Carlo simulation" to account for the market condition. That simulation takes into account the beginning stock price of our common stock, the expected volatilities for the TSR comparator group, the expected volatilities for the Company's stock price, correlation coefficients, the expected risk-free rate of return and the expected dividend yield of the Company and the comparator group. The single grant-date fair value computed by this valuation method is recognized by the Company in accounting for the awards regardless of the actual future outcome of the relative TSR feature. The grant date fair value of the other PSUs and RSUs are calculated as the closing price of our common stock as quoted on Nasdaq on the grant date multiplied by the number of shares subject to the award. ROIC is considered a performance condition and the grant-date fair value for ROIC PSUs corresponds with management's expectation of the probable outcome of the performance condition as of the grant date.

Total unrecognized compensation cost related to non-vested options, restricted stock and SARs outstanding under all of the Company's equity plans was \$13,168 and \$15,932 as of December 31, 2019 and 2018, respectively. That cost is expected to be recognized over a weighted average period of two years. Compensation expense for the years ended December 31, 2019, 2018 and 2017 was \$8,589, \$12,177 and \$12,727, respectively, and the related deferred tax benefit was \$1,573, 2,434 and \$4,339, respectively. No share-based payment arrangements expired during the three-year period ended December 31, 2019. If Gentherm were to realize expired share-based payment arrangements, they would be reported as a forfeit in the activity roll forward tables below.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Stock Options

The following table summarizes stock option activity during the three-year period ended December 31, 2019:

Options	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2016	2,103,470	\$ 32.72	4.86	\$ 12,265
Granted	808,500	37.23		
Exercised	(202,328)	13.62		
Forfeited	(57,500)	42.54		
Outstanding at December 31, 2017	2,652,142	\$ 35.34	4.76	\$ 6,964
Granted	—	—		
Exercised	(615,358)	24.01		
Forfeited	(383,784)	39.59		
Outstanding at December 31, 2018	1,653,000	\$ 38.53	4.28	\$ 3,610
Granted	—	—		
Exercised	(428,250)	38.66		
Forfeited	(355,750)	39.99		
Outstanding at December 31, 2019	869,000	\$ 37.87	3.51	\$ 5,172
Exercisable at December 31, 2017	984,374	\$ 29.84	3.44	\$ 6,534
Exercisable at December 31, 2018	788,125	\$ 38.15	3.71	\$ 2,200
Exercisable at December 31, 2019	665,000	\$ 38.10	3.23	\$ 3,725

The fair value of each option is estimated on the date of grant using the Black-Scholes option-pricing model in order to measure the compensation cost associated with the award. This model incorporates certain assumptions for inputs including a risk-free interest rate, expected dividend yield of the underlying Common Stock, expected option life and expected volatility in the market value of the underlying Common Stock. The following assumptions were used for options issued in the following periods:

	2019	2018	2017
Expected volatility	N/A	N/A	33%
Weighted-average expected volatility	N/A	N/A	33%
Expected lives	N/A	N/A	3 years
Risk-free interest rate	N/A	N/A	1.49–1.93%
Expected dividend yield	none	none	none

N/A – No new stock options were granted during 2019 and 2018.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

Expected volatilities are based on the historical volatility of the Company's Common Stock. The Company uses historical exercise data and several other factors in developing an assumption for the expected lives of stock options, including the average holding period of outstanding options and their remaining terms. The risk-free interest rate is based upon quoted market yields for United States Treasury debt securities. The expected dividend yield is based upon the Company's history of having never issued a dividend, the limitations to issue a dividend under terms of the Amended Credit Agreement and management's current expectation regarding future dividends. We do not expect any of the options granted to be forfeited for purposes of computing fair value.

The weighted-average grant-date fair value of options granted during the years ended December 31, 2017 was \$9.11. There were no stock options granted during the year ended December 31, 2019 and 2018. The total intrinsic value of options exercised during the years ended December 31, 2019, 2018 and 2017 was \$1,681, \$5,061 and \$4,715, respectively.

Restricted Stock

The following table summarizes restricted stock activity during the three-year period ended December 31, 2019:

Unvested Restricted Shares	Shares	Weighted-Average Grant Date Fair Value
Outstanding at December 31, 2016	210,481	\$ 39.02
Granted	237,542	37.30
Exercised	(165,923)	37.99
Forfeited	—	—
Outstanding at December 31, 2017	282,100	\$ 38.06
Granted	21,681	35.00
Exercised	(130,684)	38.62
Forfeited	(36,531)	37.60
Outstanding at December 31, 2018	136,566	\$ 37.16
Granted	19,920	40.16
Exercised	(91,566)	37.09
Forfeited	(30,000)	38.05
Outstanding at December 31, 2019	34,920	\$ 38.31

The compensation cost associated with restricted shares is estimated on the date of grant using quoted market prices (Level 1 input). The total fair value of restricted shares vested in 2019, 2018 and 2017 was \$3,697, \$4,599 and \$6,006, respectively.

Restricted Stock Units

The following table summarizes restricted stock unit activity during the two-year period ended December 31, 2019:

Unvested Restricted Stock Units	Time Vesting Shares	Performance-Based Awards		Total
		ROIC Target Shares	TSR Target Shares	
Outstanding at December 31, 2017	—	—	—	—
Granted	86,392	64,785	64,792	215,969
Vested	—	—	—	—
Forfeited	—	—	—	—
Outstanding at December 31, 2018	86,392	64,785	64,792	215,969
Granted	107,391	56,380	56,375	220,146
Vested	(23,956)	—	—	(23,956)
Forfeited	(28,086)	(26,124)	(26,128)	(80,338)
Outstanding at December 31, 2019	141,741	95,041	95,039	331,821

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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No restricted stock units were granted prior to 2018.

Stock Appreciation Rights

The following table summarizes SARs activity during the three-year period ended December 31, 2019:

Stock Appreciation Rights	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2016	1,244,600	\$ 36.11	4.80	\$ 3,511
Granted	235,000	38.05		
Exercised	(94,250)	22.21		
Forfeited	(193,000)	32.53		
Outstanding at December 31, 2017	1,192,350	\$ 38.17	4.36	\$ 2,278
Granted	—	—		
Exercised	(204,250)	26.35		
Forfeited	—	—		
Outstanding at December 31, 2018	988,100	\$ 40.61	3.57	\$ 2,064
Granted	—	—		
Exercised	(179,500)	32.84		
Forfeited	(254,350)	42.63		
Outstanding at December 31, 2019	554,250	\$ 39.41	2.84	\$ 2,981
Exercisable at December 31, 2017	613,808	\$ 37.68	3.72	1,904
Exercisable at December 31, 2018	683,600	\$ 41.21	3.09	1,728
Exercisable at December 31, 2019	401,438	\$ 39.62	2.46	2,135

The total intrinsic value of SARs converted during the years ended December 31, 2019, 2018 and 2017 was \$1,588, \$3,532 and \$1,495, respectively.

Note 19 — Leases

Components of lease expense for the year ended December 31, 2019 are as follows:

	Year Ended December 31, 2019
Lease cost:	
Operating lease cost	\$ 5,899
Short-term lease cost	3,444
Sublease income	(128)
Total lease cost	<u>\$ 9,215</u>

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(In thousands, except share and per share data)

Other information related to leases is as follows:

	Year Ended December 31, 2019
Supplemental cash flow information:	
Gain on sales and leaseback transactions, net	\$ 207
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	\$ 6,059
Right-of-use lease assets obtained in exchange for lease obligations:	
Operating leases	\$ 4,111
December 31, 2019	
Weighted-average remaining lease term:	
Operating leases	4.5 years
Weighted-average discount rate:	
Operating leases	5.46%

A summary of operating leases as of December 31, 2019, under all non-cancellable operating leases with terms exceeding one year is as follows:

2020	\$ 4,847
2021	2,949
2022	1,602
2023	796
2024	790
2025 or later	1,832
Total future minimum lease payments	12,816
Less: imputed interest	(1,479)
Total	\$ 11,337

As previously disclosed in our 2018 Annual Report on Form 10-K and under the previous lease accounting, maturities of lease liabilities were as follows as of December 31, 2018:

2019	\$ 7,530
2020	5,016
2021	2,468
2022	2,152
2023	1,532
2024 or later	4,021
Total	\$ 22,719

Note 20 — Commitments and Contingencies

The Company may be subject to various legal actions and claims in the ordinary course of its business, including those arising out of breach of contracts, product warranties, product liability, intellectual property rights, environmental matters, regulatory matters and employment-related matters. The Company establishes accruals for matters which it believes that losses are probable and can be reasonably estimated. Although it is not possible to predict with certainty the outcome of these matters, the Company is of the opinion

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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that the ultimate resolution of these matters will not have a material adverse effect on its consolidated results of operations or financial position. Product liability and warranty reserves are recorded separately from legal reserves, as described below.

Product Liability and Warranty Matters

The Company accrues warranty obligations for products sold based on management estimates of future failure rates and current claim cost experience, with support from the sales, engineering, quality and legal functions. Using historical information available to the Company, including claims already filed by customers, the warranty accrual is adjusted quarterly to reflect management's best estimate of future claims. The Company maintains liability insurance coverage at levels based on commercial norms and historical claims experience. The Company can provide no assurances that it will not experience material claims in the future or that it will not incur significant costs to defend such claims.

The following is a reconciliation of the changes in accrued warranty costs:

	Year Ended December 31,	
	2019	2018
Balance at beginning of year	\$ 4,514	\$ 5,382
Warranty claims paid	(584)	(905)
Warranty expense for products shipped during the current period	2,370	2,678
Adjustments to warranty estimates from prior periods	(1,660)	(608)
Acquisition of business	21	—
Reclassification to liabilities held for sale	—	(1,884)
Adjustments due to currency translation	(65)	(149)
Balance at end of year	\$ 4,596	\$ 4,514

Employees

Approximately 25% of the Company's workforce are members of industrial trade unions and are employed under the terms of various labor agreements. None of these agreements expire in 2020.

Note 21 — Selected Quarterly Information (Unaudited)

	Three Months Ended,			
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
Product revenues	\$ 257,921	\$ 243,326	\$ 240,056	\$ 230,381
Gross margin	75,307	72,714	74,692	65,622
Net income	8,414	2,751	15,887	10,454
Basic earnings per share	\$ 0.25	\$ 0.08	\$ 0.48	\$ 0.32
Diluted earnings per share	\$ 0.25	\$ 0.08	\$ 0.48	\$ 0.32

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except share and per share data)

	Three Months Ended,			
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
Product revenues (a)	\$ 264,586	\$ 266,400	\$ 261,504	\$ 256,015
Gross margin	81,242	77,092	75,704	70,820
Net income (loss)	12,966	16,659	(355)	12,629
Basic earnings (loss) per share	\$ 0.35	\$ 0.46	\$ (0.01)	\$ 0.37
Diluted earnings (loss) per share	\$ 0.35	\$ 0.45	\$ (0.01)	\$ 0.36

- a) Product revenues for 2018 have been adjusted to conform with the current year presentation, related to a reclassification of customer relationship amortization from product revenues to selling, general and administrative expenses. See Note 2, "Significant Accounting Policies" to the consolidated financial statements included in this Report for further details regarding these adjustments.

GENTHERM INCORPORATED
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS
For the Years Ended December 31, 2019, 2018 and 2017

(In thousands)

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts	Deductions from Reserves	Balance at End of Period
Allowance for Doubtful Accounts					
Year Ended December 31, 2017	1,391	1,239	51	(1,708)	973
Year Ended December 31, 2018	973	1,005	(121)	(1,006)	851
Year Ended December 31, 2019	851	969	(8)	(619)	1,193
Allowance for Deferred Income Tax Assets					
Year Ended December 31, 2017	19,304	6,700	1,574	—	27,578
Year Ended December 31, 2018	27,578	—	(14,009)	(3,592)	9,977
Year Ended December 31, 2019	9,977	19,277	(491)	—	28,763
Reserve for Inventory					
Year Ended December 31, 2017	4,790	3,521	302	(726)	7,887
Year Ended December 31, 2018	7,887	2,712	(1,047)	(3,282)	6,270
Year Ended December 31, 2019	6,270	1,679	(56)	(1,820)	6,073

**DESCRIPTION OF SECURITIES REGISTERED PURSUANT TO SECTION 12
OF THE SECURITIES EXCHANGE ACT OF 1934**

The common stock, without par value (the “*common stock*”), of Gentherm Incorporated (“*Gentherm*”, “*the Company*”, “*we*”, “*our*” and “*us*”) is the only class of securities of Gentherm registered under Section 12 of the Securities Exchange Act of 1934, as amended. The summary of the general terms and provisions of the common stock set forth below does not purport to be complete and is subject to and qualified in its entirety by reference to the Michigan Business Corporation Act (the “*MBCA*”), our Second Restated Articles of Incorporation (the “*Articles*”) and Amended and Restated Bylaws (the “*Bylaws*”). Our Articles and Bylaws are incorporated herein by reference and attached as exhibits to our Annual Report on Form 10-K of which this Exhibit 4 is a part.

Authorized Stock. The Articles authorize the issuance of up to 59,991,000 shares of our capital stock, including 55,000,000 shares of common stock and 4,991,000 shares of preferred stock.

Dividends. Subject to the preferential rights of any other class or series of our capital stock which may from time to time come into existence, holders of common stock are entitled to receive dividends on such shares out of our funds that we can legally use to pay dividends, when and if such dividends are declared by our board of directors. We have never paid any cash dividends on our common stock and do not anticipate paying dividends in the near future. Our bank credit facilities generally limit the payment of dividends on our common stock so long as such facilities are outstanding.

Voting Rights. Each outstanding share of common stock entitles the holder to one vote on all matters submitted to a vote of shareholders, including the election of our board of directors. Our common stock does not have cumulative voting rights. Whenever any action is to be taken by vote of the shareholders, other than the election of directors, it shall be authorized by a majority of the votes cast by holders of shares entitled to vote on the action, unless a vote of a greater number or voting by classes is required by the MBCA or the Articles. In the election of directors, the nominees receiving the highest number of votes, up to the number of directors to be elected, will be elected, subject to the majority voting policy contained in our Corporate Governance Guidelines, which requires any director nominee that receives a greater number of votes “withheld” than votes “for” his or her election to promptly tender his or her resignation, conditioned on acceptance by our board of directors.

Distribution on Liquidation or Dissolution. Upon any liquidation, dissolution or winding up of the Company, voluntary or otherwise, subject to liquidation preference granted to the holders of any outstanding shares of preferred stock and after the payment of all of our debts and other liabilities, the holders of our common stock will be entitled to share ratably in all assets legally available for distribution to our shareholders.

Other Rights and Restrictions. Each share of common stock has equal distribution, liquidation and other rights, and has no preference, conversion, exchange, sinking fund, redemption or preemptive rights.

Blank Check Preferred Stock. Our board of directors has the authority under the Articles to, without further action of the shareholders except as may be required by applicable laws or regulations including stock exchange rules, issue preferred stock and, for each such series of preferred stock, determine the preferences, rights (including voting and conversion rights), and other terms of any such series, which rights may be superior to the rights of the holders of our common stock.

The effects of the issuance of the preferred stock on the holders of our common stock could include:

- reduction of the amount otherwise available for payments of dividends on common stock if dividends are payable on the series of preferred stock;
 - restrictions on dividends on, or repurchases of, our common stock if dividends on the series of preferred stock are in arrears;
 - dilution of the voting power of our common stock if the series of preferred stock has voting rights, including a possible “veto” power;
-

- dilution of the equity interest of holders of our common stock if the series of preferred stock is convertible, and is converted, into our common stock; and
- restrictions on the rights of holders of our common stock to share in our assets upon liquidation until satisfaction of any liquidation preference granted to the holders of the series of preferred stock.

Anti-Takeover Matters. Our preferred stock could be deemed to have an anti-takeover effect in that, if a hostile takeover situation should arise, shares of preferred stock could be issued to purchasers sharing views with our management or others in such a way as to render more difficult or to discourage a merger, tender offer, proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management.

The Bylaws currently provide that the number of directors of the Company will not be less than seven nor more than eleven. The exact number of directors is to be specified by a resolution duly adopted by the board of directors or shareholders. The Bylaws provide that (i) subject to any further restrictions in the Articles, a change to the Bylaws specifying or changing a fixed number of directors or the maximum or minimum number of directors or changing from a fixed to a variable board or vice versa may only be adopted by approval of the outstanding shares; provided, however, that a Bylaw or amendment of the Articles reducing the fixed number or the minimum number of directors to a number less than five cannot be adopted if the votes cast against its adoption at a meeting, or the shares not consenting in the case of action by written consent, are equal to more than 16-2/3% of the outstanding shares entitled to vote, and (ii) no amendment may change the stated maximum number of authorized directors to a number greater than two times the stated minimum number of directors minus one. These provisions may restrict the ability of a third party to remove incumbent directors and simultaneously gain control of the board of directors by filling the vacancies created by removal with its own nominees.

The Bylaws set forth advance notice procedures with regard to the nomination of candidates for election as directors or the proposal of other business to be presented at meetings of shareholders. These procedures provide that notice of such shareholder proposals must be timely, reflect a proper matter for shareholder action and comply with various disclosure obligations. The advance notice requirements may have the effect of precluding the consideration of certain business at a meeting if the notice procedures are not properly followed.

The Company is subject to the provisions of Chapter 7A of the MBCA. In general, subject to certain exceptions, the MBCA prohibits a Michigan corporation from engaging in a “business combination” with an “interested shareholder” for a period of five years following the date that such shareholder becomes an interested shareholder, unless (i) prior to such date, the board of directors approves the business combination or (ii) on or subsequent to such date, the business combination is approved by at least 90% of the votes of each class of the corporation’s stock entitled to vote and by at least two-thirds of such voting stock not held by the interested shareholder or such shareholder’s affiliates. The MBCA defines a “business combination” to include certain mergers, consolidations, dispositions of assets or shares and recapitalizations. An “interested shareholder” is defined by the MBCA to include a beneficial owner, directly or indirectly, of 10% or more of the voting power of the outstanding voting shares of the corporation.

Transfer Agent. The transfer agent and registrar for our common stock is ComputerShare Trust Company, N.A.

Listing. Our common stock is listed on The Nasdaq Global Select Stock Market under the symbol “THRM.”

FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

THIS FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT (this "Agreement"), dated as of October 7, 2019 but effective as of October 1, 2019 (the "First Amendment Effective Date"), is entered into by and among Gentherm Incorporated, a Michigan corporation (the "Company"), Gentherm (Texas), Inc., a Texas corporation ("Gentherm Texas"), Gentherm Licensing, Limited Partnership, a Michigan limited partnership ("Gentherm Licensing US"), Gentherm Medical, LLC, an Ohio limited liability company ("Gentherm Medical"), Gentherm GmbH, a German limited liability company ("Gentherm Germany"), Gentherm Enterprises GmbH, a German limited liability company ("Gentherm Enterprises"), Gentherm Licensing GmbH, a German limited liability company ("Gentherm Licensing Germany"); Gentherm Licensing Germany, together with Gentherm Germany and Gentherm Enterprises, the "German Borrowers"; Gentherm Global Power Technologies Inc., an Alberta corporation ("Global"), Gentherm Canada ULC, an Alberta unlimited liability company ("Gentherm Canada"; Gentherm Canada, together with Global, the "Canadian Borrowers"; the Canadian Borrowers, together with the Company, Gentherm Texas, Gentherm Licensing US, Gentherm Medical, and the German Borrowers, the "Borrowers" and each, a "Borrower"), the Guarantors party hereto, the Lenders party hereto, and Bank of America, N.A., as Administrative Agent (the "Administrative Agent").

W I T N E S S E T H:

WHEREAS, the Borrowers, the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, are all parties to that certain Amended and Restated Credit Agreement, dated as of June 27, 2019 (as amended or otherwise modified prior to the First Amendment Effective Date, the "Credit Agreement");

WHEREAS, the Company has informed the Administrative Agent that it intends to dispose of (a) the Purchased Shares (as defined in the Global Disposition Agreement (as defined below) as in effect on the First Amendment Effective Date) (the "Global Purchased Shares Disposition"), and (b) the Purchased Assets (as defined in the Global Disposition Agreement as in effect on the First Amendment Effective Date) (the "Global Purchased Assets Disposition"; the Global Purchased Assets Disposition, together with the Global Purchased Shares Disposition, collectively the "Global Disposition"), in each case pursuant to that certain Share and Asset Purchase Agreement, dated as of the First Amendment Effective Date, by and between the Company, as seller, and Global Power Technologies Inc., an Alberta corporation, as buyer (the "Global Disposition Agreement");

WHEREAS, the Borrowers have requested that the Lenders and the Administrative Agent amend certain provisions of the Credit Agreement as set forth herein; and

WHEREAS, the Lenders party hereto and the Administrative Agent are willing to effect such amendments, subject to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

ARTICLE I.

DEFINITIONS

SECTION 1.1.
Credit Agreement.

Definitions. Capitalized terms used but not otherwise defined herein have the meanings assigned to them in the

ARTICLE II.

AMENDMENTS TO CREDIT AGREEMENT

SECTION 2.1. Cover Page of the Credit Agreement. The cover page of the Credit Agreement is hereby amended to delete the reference thereon to "GENTHERM GLOBAL POWER TECHNOLOGIES INC."

SECTION 2.2. Introductory Paragraph of the Credit Agreement. The introductory paragraph of the Credit Agreement is hereby amended to read as follows:

This AMENDED AND RESTATED CREDIT AGREEMENT (this "Agreement") is entered into as of June 27, 2019, among GENTHERM INCORPORATED, a Michigan corporation (the "Company"), GENTHERM (TEXAS), INC., a Texas corporation ("Gentherm Texas"), GENTHERM LICENSING, LIMITED PARTNERSHIP, a Michigan limited partnership ("Gentherm Licensing US"), GENTHERM MEDICAL, LLC, an Ohio limited liability company ("Gentherm Medical"), GENTHERM GMBH, a German limited liability company ("Gentherm Germany"), GENTHERM ENTERPRISES GMBH, a German limited liability company ("Gentherm Enterprises"), GENTHERM LICENSING GMBH, a German limited liability company ("Gentherm Licensing Germany"; Gentherm Licensing Germany, together with Gentherm Germany and Gentherm Enterprises, the "German Borrowers" and each a "German Borrower"), GENTHERM CANADA ULC, an Alberta unlimited liability company (the "Canadian Borrower"), certain Subsidiaries of the Company party hereto pursuant to Section 2.19 (the "Designated Borrowers" and each, a "Designated Borrower"; the Designated Borrowers, together with the Company, Gentherm Texas, Gentherm Licensing US, Gentherm Medical, the German Borrowers and the Canadian Borrower, the "Borrowers" and each, a "Borrower"), each lender from time to time party hereto (collectively, the "Lenders" and individually, a "Lender"), and BANK OF AMERICA, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer.

SECTION 2.3. Section 1.01 of the Credit Agreement.

SECTION 2.3.1. The definition of "Global" in Section 1.01 of the Credit Agreement is hereby amended to read as follows:

"Global" means Gentherm Global Power Technologies Inc., an Alberta corporation.

SECTION 2.3.2. The definition of "LIBOR Successor Rate Conforming Changes" in Section 1.01 of the Credit Agreement is hereby amended to read as follows:

"LIBOR Successor Rate Conforming Changes" means, with respect to any proposed LIBOR Successor Rate, any conforming changes to the definition of Base Rate, the definition of Interest Period, timing and frequency of determining rates and making payments of interest and other technical, administrative or operational matters as may be appropriate, in the discretion of the Administrative Agent, to reflect the adoption and implementation of such LIBOR Successor Rate and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent determines that adoption of any portion of such market practice

is not administratively feasible or that no market practice for the administration of such LIBOR Successor Rate exists, in such other manner of administration as the Administrative Agent determines in consultation with the Company).

SECTION 2.3.3. The following defined terms are hereby added to Section 1.01 of the Credit Agreement in the appropriate alphabetical order:

“Adjustment” has the meaning set forth in Section 3.07.

“First Amendment Effective Date” means October 1, 2019.

“Global Disposition” means, collectively, (a) the disposition by the Company of the Global Disposition Purchased Shares pursuant to the Global Disposition Agreement, and (b) the disposition by the Company of the Global Disposition Purchased Assets pursuant to the Global Disposition Agreement.

“Global Disposition Agreement” means that certain Share and Asset Purchase Agreement, dated as of the First Amendment Effective Date, by and between the Company, as seller, and Global Power Technologies Inc., an Alberta corporation, as buyer.

“Global Disposition Purchased Assets” means the Purchased Assets (as defined in the Global Disposition Agreement as in effect on the First Amendment Effective Date).

“Global Disposition Purchased Shares” means the Purchased Shares (as defined in the Global Disposition Agreement as in effect on the First Amendment Effective Date).

“Relevant Governmental Body” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York for the purpose of recommending a benchmark rate to replace LIBOR in loan agreements similar to this Agreement.

“SOFR” with respect to any day means the secured overnight financing rate published for such day by the Federal Reserve Bank of New York, as the administrator of the benchmark (or a successor administrator) on the Federal Reserve Bank of New York’s website (or any successor source) and, in each case, that has been selected or recommended by the Relevant Governmental Body.

“SOFR-Based Rate” means SOFR or Term SOFR.

“Term SOFR” means the forward-looking term rate for any period that is approximately (as determined by the Administrative Agent) as long as any of the Interest Period options set forth in the definition of “Interest Period” and that is based on SOFR and that has been selected or recommended by the Relevant Governmental Body, in each case as published on an information service as selected by the Administrative Agent from time to time in its reasonable discretion.

SECTION 2.3.4. The following defined term is hereby deleted from Section 1.01 of the Credit Agreement:
Gentherm Canada.

3.07 LIBOR Successor Rate.

Notwithstanding anything to the contrary in this Agreement or any other Loan Document, if the Administrative Agent determines (which determination shall be conclusive absent manifest error), or the Company or the Required Lenders notify the Administrative Agent (with, in the case of the Required Lenders, a copy to the Company) that the Company or the Required Lenders (as applicable) have determined, that: (a) adequate and reasonable means do not exist for ascertaining LIBOR for any requested Interest Period, including, because the LIBOR Screen Rate is not available or published on a current basis and such circumstances are unlikely to be temporary; or (b) the administrator of the LIBOR Screen Rate or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which LIBOR or the LIBOR Screen Rate shall no longer be made available, or used for determining the interest rate of loans; provided, that, at the time of such statement, there is no successor administrator that is satisfactory to the Administrative Agent that will continue to provide LIBOR after such specific date (such specific date, the "Scheduled Unavailability Date"); or (c) syndicated loans currently being executed, or that include language similar to that contained in this Section 3.07, are being executed or amended (as applicable) to incorporate or adopt a new benchmark interest rate to replace LIBOR; then, reasonably promptly after such determination by the Administrative Agent or receipt by the Administrative Agent of such notice, as applicable, the Administrative Agent and the Company may amend this Agreement to replace LIBOR with (x) to the extent applicable solely to Eurocurrency Rate Loans denominated in Dollars, one or more SOFR-Based Rates, or (y) another alternate benchmark rate, giving due consideration to any evolving or then existing convention for similar syndicated credit facilities for such alternative benchmarks and, in each case, including any mathematical or other adjustments to such benchmark giving due consideration to any evolving or then existing convention for similar syndicated credit facilities for such benchmarks, which adjustment or method for calculating such adjustment shall be published on an information service as selected by the Administrative Agent from time to time in its reasonable discretion and may be periodically updated (the "Adjustment"; and any such proposed rate, a "LIBOR Successor Rate"), and any such amendment shall become effective at 5:00 p.m. on the fifth (5th) Business Day after the Administrative Agent shall have posted such proposed amendment to all Lenders unless, prior to such time, Lenders comprising the Required Lenders have delivered to the Administrative Agent written notice that such Required Lenders (A) in the case of an amendment to replace LIBOR with a rate described in clause (x) above, object to the Adjustment, or (B) in the case of an amendment to replace LIBOR with a rate described in clause (y) above, object to such amendment; provided, that, for the avoidance of doubt, in the case of clause (A) above, the Required Lenders shall not be entitled to object to any SOFR-Based Rate contained in any such amendment. Such LIBOR Successor Rate shall be applied in a manner consistent with market practice; provided, that, to the extent such market practice is not administratively feasible for the Administrative Agent, such LIBOR Successor Rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

If no LIBOR Successor Rate has been determined and the circumstances under clause (a) above exist or the Scheduled Unavailability Date has occurred (as applicable), the Administrative Agent will promptly so notify the Company and each Lender. Thereafter, (i) the obligation of the Lenders to make or maintain Eurocurrency Rate Loans shall be suspended (to the extent of the affected Eurocurrency Rate Loans or Interest Periods), and (ii) the Eurocurrency Rate component of the Base Rate shall no longer be utilized in determining the Base Rate. Upon receipt of such notice, the Company may revoke any pending request for a Revolving Credit Borrowing of,

conversion to or continuation of Eurocurrency Rate Loans (to the extent of the affected Eurocurrency Rate Loans or Interest Periods) or, failing that, will be deemed to have converted such request into a request for a Revolving Credit Borrowing of Base Rate Loans (subject to the foregoing clause (ii)) in the amount specified therein.

Notwithstanding anything else herein, any definition of LIBOR Successor Rate shall provide that in no event shall such LIBOR Successor Rate be less than zero for purposes of this Agreement.

In connection with the implementation of a LIBOR Successor Rate, the Administrative Agent will have the right to make LIBOR Successor Rate Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such LIBOR Successor Rate Conforming Changes will become effective without any further action or consent of any other party to this Agreement.

SECTION 2.5. Section 7.02 of the Credit Agreement. Section 7.02 of the Credit Agreement is hereby amended by (a) deleting the “and” at the end of Section 7.02(j) of the Credit Agreement, (b) replacing the “.” at the end of Section 7.02(k) with a “; and”, and (c) adding a new Section 7.02(l) immediately following Section 7.02(k) of the Credit Agreement to read as follows:

(l) loans by the Company to Global pursuant to that certain promissory note, dated as of the First Amendment Effective Date; provided, that, the aggregate principal amount of such loans made in reliance on this Section 7.02(l) shall not exceed \$1,500,000 at any one time outstanding.

SECTION 2.6. Section 7.05 of the Credit Agreement. Section 7.05 of the Credit Agreement is hereby amended by (a) deleting the “and” at the end of Section 7.05(h) of the Credit Agreement, (b) adding an “and” at the end of Section 7.05(i) of the Credit Agreement, and (c) adding a new Section 7.05(j) immediately following Section 7.05(i) of the Credit Agreement to read as follows:

(j) the Global Disposition;

SECTION 2.7. Section 7.08 of the Credit Agreement. Section 7.08 of the Credit Agreement is hereby amended by (a) deleting the “or” at the end of Section 7.08(a) of the Credit Agreement, (b) re-styling Section 7.08(b) of the Credit Agreement as Section 7.08(c), and (c) adding a new Section 7.08(b) immediately following Section 7.08(a) of the Credit Agreement to read as follows:

(b) the Global Disposition, or

SECTION 2.8. Other. Each reference to “Canadian Borrowers” in the second paragraph of the Credit Agreement, Section 1.01 of the Credit Agreement, Section 2.01(a) of the Credit Agreement, Section 2.05(b)(i) of the Credit Agreement, Section 2.06(a) of the Credit Agreement, and Section 5.21(f) of the Credit Agreement, in each case, is hereby amended to read “Canadian Borrower”.

ARTICLE III.

CONDITIONS TO EFFECTIVENESS; PAYMENT OF EXPENSES

SECTION 3.1. Conditions to Effectiveness. This Agreement shall become effective as of the First Amendment Effective Date upon satisfaction of the following conditions precedent:

SECTION 3.1.1. Receipt by the Administrative Agent of counterparts of this Agreement duly executed by each Borrower, each Guarantor, each Lender, and the Administrative Agent.

SECTION 3.1.2. Receipt by the Administrative Agent of a certificate signed by a Responsible Officer of the Company certifying that the representations and warranties set forth in Section 5.8 are true and correct as of the First Amendment Effective Date.

SECTION 3.1.3. Global shall have repaid all Obligations owing by Global as a Borrower (other than (x) Obligations with respect to the Existing Global Letter of Credit (as defined below), and (y) Obligations with respect to Global's corporate charge card program).

SECTION 3.1.4. The Loan Parties shall have provided to the Administrative Agent and each Lender the documentation and information requested by the Administrative Agent or such Lender in order to comply with applicable law, including the Act. If any Borrower qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, the Administrative Agent and each Lender shall have received, to the extent requested by the Administrative Agent or such Lender, a Beneficial Ownership Certification in relation to such Borrower.

SECTION 3.2. Payment of Expenses. The Company agrees to reimburse the Administrative Agent for all reasonable out-of-pocket expenses incurred by the Administrative Agent in connection with the preparation, execution and delivery of this Agreement, including the reasonable fees, charges and disbursements of Moore & Van Allen PLLC.

ARTICLE IV.

EFFECT OF THIS AGREEMENT; REAFFIRMATION; RELEASES

SECTION 4.1. Effect of this Agreement. Except as expressly modified and amended in this Agreement, all of the terms, provisions and conditions of the Loan Documents shall remain unchanged and in full force and effect. The Loan Documents and any and all other documents heretofore, now or hereafter executed and delivered pursuant to the terms of the Credit Agreement are hereby amended so that any reference to the Credit Agreement shall mean a reference to the Credit Agreement, as amended by this Agreement.

SECTION 4.2. Reaffirmation. Each Loan Party hereby (a) restates, ratifies and reaffirms each and every term and condition set forth in, and its obligations under, the Credit Agreement and the other Loan Documents as of the First Amendment Effective Date, and (b) except as expressly set forth in this Agreement, acknowledges and agrees that the Liens granted under the Collateral Documents continue to secure the full payment and performance of the Obligations. Except as expressly set forth in this Agreement, each Guarantor (i) hereby acknowledges and consents to all of the terms and conditions of this Agreement, (ii) affirms all of its obligations under the Loan Documents and (iii) agrees that this Agreement and all documents executed in connection herewith do not operate to reduce or discharge its obligations under the Credit Agreement or the other Loan Documents.

SECTION 4.3.

Releases.

SECTION 4.3.1. Upon the consummation of the Global Disposition (and receipt by the Administrative Agent of written confirmation by the Company to the Administrative Agent that the Global Disposition has been consummated, which written confirmation may be by e-mail), and without any further action by the Loan Parties, the Administrative Agent or any Lender, the Administrative Agent and each Lender agrees that (a) all Liens on the Purchased Shares (as defined in the Global Disposition Agreement as in effect on the First Amendment Effective Date) granted to or created in favor of the Administrative Agent pursuant to the Collateral Documents shall automatically terminate and be released and discharged, (b) all Liens on the Purchased Assets (as defined in the Global Disposition Agreement as in effect on the First Amendment Effective Date) granted to or created in favor of the Administrative Agent pursuant to the Collateral Documents shall automatically terminate and be released and discharged, (c) Global shall automatically be released and discharged in all respects as a Borrower and a Loan Party, and (d) each Lender's participation in the Letter of Credit identified on Schedule A attached hereto (the "Existing Global Letter of Credit") shall be automatically terminated and be released and discharged. For the avoidance of doubt, from and after the consummation of the Global Disposition, (i) the Existing Global Letter of Credit shall not constitute a "Letter of Credit" under the Credit Agreement (as amended by this Agreement), and (ii) obligations with respect to Global's corporate charge card program shall not constitute "Obligations".

SECTION 4.3.2. Each Lender hereby authorizes the Administrative Agent to execute and deliver to the Loan Parties, at the sole expense of the Loan Parties, all documents or instruments reasonably requested by the Loan Parties to evidence or effectuate the releases and terminations contemplated by Section 4.3.1.

ARTICLE V.

MISCELLANEOUS

SECTION 5.1. Cross-References. References in this Agreement to any Article or Section are, unless otherwise specified, to such Article or Section of this Agreement.

SECTION 5.2. Loan Document Pursuant to Credit Agreement. This Agreement is a Loan Document executed pursuant to the Credit Agreement and shall (unless otherwise expressly indicated therein) be construed, administered and applied in accordance with all of the terms and provisions of the Credit Agreement, including Article XI thereof.

SECTION 5.3. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

SECTION 5.4. Counterparts. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Agreement by telecopy or other electronic imaging means shall be effective as delivery of a manually executed counterpart of this Agreement.

SECTION 5.5. Governing Law. THIS AGREEMENT AND ANY CLAIMS, CONTROVERSY, DISPUTE OR CAUSE OF ACTION (WHETHER IN CONTRACT OR TORT OR OTHERWISE) BASED UPON, ARISING OUT OF OR RELATING TO THIS AGREEMENT AND THE TRANSACTIONS

CONTEMPLATED HEREBY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

SECTION 5.6. Full Force and Effect. Except as expressly amended hereby, all of the representations, warranties, terms, covenants, conditions and other provisions of the Credit Agreement and the other Loan Documents shall remain unchanged and shall continue to be, and shall remain, in full force and effect in accordance with their respective terms. The amendments set forth herein shall be limited precisely as provided for herein to the provisions expressly amended herein and shall not be deemed to be an amendment to or modification of any other term or provision of the Credit Agreement or any other Loan Document or of any transaction or further or future action on the part of any Loan Party which would require the consent of the Lenders under the Credit Agreement or any of the Loan Documents.

SECTION 5.7. Miscellaneous. Each Loan Party hereby represents and warrants as follows: (a) the execution, delivery and performance by such Loan Party of this Agreement has been duly authorized by all necessary corporate or other organizational action; (b) such Loan Party has all requisite power and authority and all requisite governmental licenses, authorizations, consents and approvals to execute, deliver and perform its obligations under this Agreement and to consummate the transactions contemplated hereby; (c) this Agreement has been duly executed and delivered by such Loan Party and constitutes such Loan Party's legal, valid and binding obligation, enforceable in accordance with its terms; and (d) no approval, consent, exemption, authorization, or other action by, or notice to, or filing with, any Governmental Authority or any other Person is necessary or required in connection with execution, delivery or performance by, or enforcement against, such Loan Party of this Agreement, or for the consummation of the transactions contemplated hereby.

SECTION 5.8. Loan Party Representations and Warranties. In order to induce the Lenders to execute and deliver this Agreement, the Loan Parties hereby represent and warrant to the Lenders that both before and after giving effect to this Agreement and the consummation of the Global Disposition, (a) no event has occurred and is continuing which constitutes a Default or an Event of Default, and (b) the representations and warranties of (i) the Borrowers contained in Article V of the Credit Agreement (as amended by this Agreement) and (ii) each Loan Party contained in each other Loan Document or in any document furnished at any time under or in connection herewith or therewith, are true and correct in all material respects (and in all respects if any such representation or warranty is already qualified by materiality) on and as of the First Amendment Effective Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they are true and correct in all material respects (and in all respects if any such representation or warranty is already qualified by materiality) as of such earlier date, and except that for purposes of this Agreement, the representations and warranties contained in Sections 5.05(a) and (b) of the Credit Agreement (as amended by this Agreement) shall be deemed to refer to the most recent statements furnished pursuant to, respectively, of Sections 6.01(a) and (b) of the Credit Agreement (as amended by this Agreement).

[signature pages follow]

IN WITNESS WHEREOF, the parties hereto have executed and delivered this Agreement as of the date first above written.

BORROWERS: GENTHERM INCORPORATED,

a Michigan corporation

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Chief Financial Officer

GENTHERM (TEXAS), INC.,
a Texas corporation

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Chief Financial Officer

GENTHERM LICENSING, LIMITED PARTNERSHIP,
a Michigan limited partnership

By: Gentherm Equity, LLC, its general partner

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Manager

GENTHERM MEDICAL, LLC,
an Ohio limited liability company

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Manager

GENTHERM GMBH,
a German limited liability company

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Managing Director

GENTHERM ENTERPRISES GMBH,
a German limited liability company

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Managing Director

GENTHERM LICENSING GMBH,
a German limited liability company

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Managing Director

GENTHERM GLOBAL POWER TECHNOLOGIES INC.,
an Alberta corporation

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Treasurer

GENTHERM CANADA ULC,
an Alberta unlimited liability company

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Chief Financial Officer

GUARANTORS:

GENTHERM PROPERTIES I, LLC,
a Michigan limited liability company

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Chief Financial Officer

GENTHERM PROPERTIES II, LLC,
a Michigan limited liability company

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Chief Financial Officer

GENTHERM HOLDING (MALTA) LIMITED,
a Maltese limited company

By: /s/ Silvano Azzopardi
Name: Silvano Azzopardi
Title: Director

GENTHERM AUTOMOTIVE SYSTEMS (MALTA) LIMITED,
a Maltese limited company

By: /s/ Silvano Azzopardi
Name: Silvano Azzopardi
Title: Director

GENTHERM HUNGARY KORLÁTOLT FELELŐSSÉGŰ TÁRSASÁG,
a Hungarian limited liability company

By: /s/ Jörg Evers
Name: Jörg Evers
Title: Managing Director

GENTHERM LUXEMBOURG I S.À R.L.,
a private limited liability company (*société à responsabilité limitée*) incorporated and
existing under the laws of the Grand Duchy of Luxembourg, with its registered office at 41,
avenue de la Gare, L-1611 Luxembourg and registered with the Luxembourg trade and
companies register under number B 191.251

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Manager

GENTHERM LUXEMBOURG II S.À R.L.,
a private limited liability company (*société à responsabilité limitée*) incorporated and
existing under the laws of the Grand Duchy of Luxembourg, with its registered office at 41,
avenue de la Gare, L-1611 Luxembourg and registered with the Luxembourg trade and
companies register under number B 191.252

By: /s/ Matteo Anversa
Name: Matteo Anversa
Title: Manager

ADMINISTRATIVE AGENT:

BANK OF AMERICA, N.A.,
as Administrative Agent

By: /s/ Felicia Brinson
Name: Felicia Brinson
Title: Assistant Vice President

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

LENDERS:

BANK OF AMERICA, N.A.,
as a Lender, Swing Line Lender and L/C Issuer

By: /s/ David Komrska
Name: David Komrska
Title: Senior Vice President

JPMORGAN CHASE BANK, N.A.,
as a Lender

By: /s/ Helen D. Davis
Name: Helen D. Davis
Title: Authorized Officer

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

PNC BANK, NATIONAL ASSOCIATION,
as a Lender

By: /s/ Scott Neiderheide
Name: Scott Neiderheide
Title: Vice President

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

HSBC BANK USA, NATIONAL ASSOCIATION,
as a Lender

By: /s/ Frank M. Eassa
Name: Frank M. Eassa
Title: Senior Vice President

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

KEYBANK NATIONAL ASSOCIATION,
as a Lender

By: /s/ Brandon Welling
Name: Brandon Welling
Title: Vice President

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

COMERICA BANK,
as a Lender

By: /s/ Flaviu Pop
Name: Flaviu Pop
Title: Vice President, Corporate Banking

THE HUNTINGTON NATIONAL BANK,
as a Lender

By: /s/ William N. Bartok
Name: William N. Bartok
Title: Vice President

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

BANK OF MONTREAL,
as a Lender

By: /s/ Matthew Gerber
Name: Matthew Gerber
Title: Managing Director

By: /s/ Edward Mizuhara
Name: Edward Mizuhara
Title: DCM Origination & Syndication

By: /s/ Sean Gallaway
Name: Sean Gallaway
Title: Director

CITIZENS BANK, N.A.,
as a Lender

By: /s/ Jonathan Gleit
Name: Jonathan Gleit
Title: SVP

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

BANK OF THE WEST,
as a Lender

By: /s/ Philip R. Medsger
Name: Philip R. Medsger
Title: Director

GENTHERM INCORPORATED
FIRST AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

Schedule A

Existing Global Letter of Credit

<u>Applicant</u>	<u>L/C Number</u>	<u>Issuance Date</u>	<u>Expiry Date</u>
Gentherm Global Power Technologies Inc.	68094896	8/12/19	12/31/19

August 5, 2019

Helen Xu
Helenxu24@hotmail.com

Dear Helen:

On behalf of Gentherm Incorporated, I am very excited to present to you an offer of employment for the position of Senior Vice President and General Manager, Managing Director China, Head of Global Electronics. You will be a member of Gentherm's Executive Committee and report to Gentherm's Chief Executive Officer. Your compensation package would be as set forth in the attached term sheet.

I believe that you would find this role to be exciting, challenging and rewarding. The entire leadership team is thrilled at the prospect of you joining our Company.

As with all positions at Gentherm, the following conditions apply: (1) you would be permitted to begin employment with the Company only after you provide required documentation verifying your identity and employment eligibility in the United States, (2) your employment is contingent upon successfully passing a pre-employment drug test and background check, (3) your employment would be "at-will" and terminable at any time for any reason, and (4) you would be required to sign the attached Confidential Information and Inventions Assignment Agreement.

Please contact me should you have any questions; otherwise, your signature below will confirm your acceptance the terms of this offer. Please return a signed copy to Barb Runyon via email (Barbara.Runyon@Gentherm.com).

I am looking forward with great anticipation to working with you!

Sincerely,

Philip M. Eyler
President and Chief Executive Officer

cc: Barbara Runyon

AGREED TO AND ACCEPTED BY:

/s/ Helen Xu 2019/08/06
Helen Xu Date

21680 Haggerty Road Northville MI 48167
P 1.248.513.8611 F 1.248.504.0480 www.gentherm.com

Compensation Term Sheet

Helen Xu

Attachment to Offer Letter Dated: August 5, 2019

POSITION

Position Senior Vice President and General Manager,
Managing Director China,
Head of Global Electronics

Primary Work Location Gentherm Shanghai, China

DIRECT COMPENSATION

Salary Annual salary of \$385,000 per year

Bonus Program The position has a 50% target bonus under the Gentherm Performance Bonus Plan (eligibility for 2020 bonus). Under such bonus plan, your bonus will be based on a combination of (i) achievement of individual goals agreed to by you and your supervisor and (ii) the Company's achievement of its financial goals, in all cases subject to approval by the Compensation Committee of the Gentherm Board of Directors.

Sign-On Grant On the first date of your employment, equity having a grant date value of \$150,000 would be awarded (the "Sign-On Equity Grant"). This amount, divided by Gentherm's 10-trading day average stock price ending on such date, will determine the number of restricted stock units (RSUs) that you will receive. These grants vest over 3 years.

Sign-On Bonus On your first paycheck, a sign-on bonus of \$50,000 (less taxes). This bonus must be repaid if you voluntarily terminate your employment within the first year.

Equity Compensation Subject to approval by the Compensation Committee of the Board of Directors, you would receive an equity compensation grant commensurate with your position (starting in 2020). Typically, equity grants are awarded by the Compensation Committee in March of each year. The grant for a position at this level in 2019 was \$400,000.

Company Provided Transportation A Company car and driver will be provided by Gentherm China and will be arranged shortly after you accept the role. This benefit will begin your first week of being employed at Gentherm.

Technology The Company will provide you with a mobile phone, laptop computer, iPad and appropriate other technology accessories.

Start Date November 18, 2019 (ideal to attend a day/evening of BOD meeting in Munich the week of Nov 4, 2019)

EMPLOYEE BENEFITS

Term Life Insurance/ADD – Company paid	150% of annual salary provided by Gentherm in accordance with the group benefit plan offered to other similarly-situated Gentherm employees.
Short Term/Long Term Disability – Company paid	Provided by Gentherm in accordance with the group benefit plan offered to other similarly-situated Gentherm employees
Local Plus Benefits	You will receive Local Plus benefits of \$25,000 to fund children’s education or personal housing for the term of this assignment in China. Should you move to the United States for a new assignment this benefit will end.
Vacation	Four weeks of vacation (20 days)
Sick Leave	Five days of sick leave
Paid Holidays	In accordance with Gentherm’s China policy.
Medical / Dental / Vision / Flexible Spending Account	All in accordance with the group benefit plan offered to similarly situated Gentherm employees on the Global benefit program. Details will be provided to you on your first day of employment, unless you require information sooner.
Tax Support and Tax Equalization	As of the effective date of the assignment, you will be responsible for all actual taxes in the home and host country. The Company will provide the services of a third-party consultant (Deloitte) to assist with tax return preparation and advice for the duration of the assignment and year following the assignment if impacted by the assignment. The Company will provide tax equalization to keep you whole compared to if you had remained in your home country and paid taxes.
401(k) Retirement Savings Plan	Automatic enrollment at 6% unless opted out. Voluntary participation for amounts above 6%. Current Company discretionary match at dollar for dollar for first 4%.



Technology to the next degree™



Exhibit 10.12

February 16, 2018

Dear Yijing,

On behalf of Gentherm Incorporated, I am pleased to present an offer of employment to you for the position of Senior Vice President, Investor Relations and Corporate Communications reporting to Phil Eyster, CEO / President. The position is located at our Northville, Michigan office. Your compensation package will include terms according to the attached compensation sheet.

This employment offer is contingent upon your ability to complete Section 1 of the Form I-9 on or before your first day of work and provide documentation verifying your identity and employment eligibility in the United States in compliance with the Form I-9 requirements within your first three days of employment. Also, your future employment with Gentherm is dependent upon your continued eligibility for employment in the United States and ability to provide acceptable documentation to re-verify your employment authorization, if required. Your employment is contingent upon successfully passing our pre-employment drug test and background check. By signing below, you acknowledge that your employment is on an "at-will basis."

Yijing, we are delighted at the prospect of your joining Gentherm and believe that you will find this role to be exciting, challenging and rewarding. Please contact myself should you have any questions; otherwise, your signature below and on the enclosed term sheet, and attached policies will confirm your acceptance of our offer. Please return a signed copy to me via email (erin.ascher@gentherm.com). This offer is valid until 5:00 p.m. Eastern Time, Friday, February 23, 2018.

/s/ Erin Ascher

Erin Ascher
Chief Human Resources Officer

cc: Phil Eyster, CEO / President

AGREED TO AND ACCEPTED BY:

/s/ Yijing Brentano 2/23/18
Yijing Brentano Date

21680 Haggerty Road Northville MI 48167
P 1.248.513.8611 F 1.248.504.0480 www.gentherm.com



Compensation Term Sheet

Yijing Brentano
February 16, 2018

Position	Senior Vice President, Investor Relations and Corporate Communications
Salary	Annual \$334,000 per year, (\$13,916.67 paid semi-monthly)
Sign-On Bonus	You will receive a sign-on bonus of \$100,000 within your first 30 days with the Company.
Bonus Program	Your position has a 50% target as part of the Gentherm Global Bonus program based on individual agreed to by you and your manager, subject to approval by the Compensation Committee of the Gentherm Board of Directors.
Long Term Incentive	Participation in the Long Term Incentive program commensurate with level.
Vehicle	A company vehicle will be available for your use (brand and model to be approved by the CEO). U company vehicle includes gas, maintenance and insurance. Imputed income will be calculated bas personal use of vehicle.

Start Date

TBD



EMPLOYEE BENEFITS

Term Life Insurance/ADD – 150% of annual salary, with a maximum of \$500,000 coverage, provided by the Company
Company paid

Short Term/Long Term Disability – Provided by Company
Company paid

Vacation 4 weeks vacation annually, accrual of 6.67 hours per semi-monthly pay cycle
Yrs. Svc. Vacation Days Maximum Carryover of Vacation Days 0 thru 5 Accrual of 5 hours per semi-monthly pay cycle 15
days*First year is pro-rated based on your date of hire.240 hours6 thru 15Accrual of 6.67 hours per semi-monthly pay cycle
days240 hours16+Accrual of 8.33 hours per semi-monthly pay cycle 25 days240 hours

*Option to rollover vacation time; payout of vacation hours exceeding annual maximum twice per year-January and July

Anniversary of hire date advances you to next level of vacation days allowed

Sick Leave 5 days per year- unused days do not roll over

*You will be eligible for a pro-rated amount of sick days during your first year, please reference the schedule below:

Sick Days Pro-rated Schedule Based on Month of Hire
5 January - April
4 May - August
3 September - December

Paid Holidays

14 paid holidays per year



Medical / Dental / Vision / Flexible Spending Account (FSA) – Pre-tax payroll deduction Voluntary participation; employee contributes a portion of premium for medical, dental, vision; FSA maximum per calendar year: \$2,500 for healthcare, \$5,000 for dependent care. All benefits effective the first of the month after hire.

401(k) Retirement Savings Plan – Pre-tax payroll deduction Automatic enrollment for new hire at 6% **unless opted out**. Voluntary participation for amounts above 6%; current Company discretionary match is dollar for dollar for first 4%.

Optional/Additional Life Insurance – Post-tax payroll deduction Voluntary participation to purchase term life insurance plan by payroll deduction on a post-tax basis. Employee can purchase optional/additional life insurance in \$10,000 increments above what company provides up to a maximum of \$100,000 for themselves; maximum of \$25,000 term life insurance for spouse; and \$10,000 for dependents up to age 25 if full-time student otherwise up to age 19. Premium is based on age of employee and employee must participate in order to purchase spousal dependent coverage.

By signing this letter and term sheet, you indicate your acceptance of our offer of employment.

AGREED TO AND ACCEPTED BY:

/s/ Yijing Brentano
Yijing Brentano

Date

2/23/18

LIST OF SUBSIDIARIES

Name	Jurisdiction of Formation
Gentherm Holding (Malta) Ltd.	Malta
Gentherm Automotive Systems (Malta) Ltd.	Malta
Gentherm Automotive Technologies (Shanghai) Co. Ltd.	China
Gentherm Electronics (Shenzhen) Co. Ltd.	China
Gentherm Automotive Systems (China) Ltd.	China
Gentherm International Holdings (Hong Kong) Limited	China
Etratech Hong Kong Limited	China
Etratech Asia-Pacific Limited	China
Etratech Holdings Asia-Pacific Limited	China
Etratech Asia-Pacific Electronics (Shenzhen) Ltd.	China
Gentherm GmbH	Germany
Gentherm Enterprises GmbH	Germany
Gentherm Licensing GmbH	Germany
CSZ International GmbH	Germany
Gentherm Vietnam Co. Ltd.	Vietnam
Gentherm Japan Inc.	Japan
Gentherm Korea Inc.	South Korea
Gentherm Properties I, LLC	Michigan
Gentherm Properties II, LLC	Michigan
Gentherm Equity, LLC	Michigan
Gentherm Licensing, L.P.	Michigan
Gentherm Medical, LLC	Ohio
Gentherm (Texas), Inc.	Texas
Gentherm Hungary Kft	Hungary
Gentherm Ukraine TOV	Ukraine
Gentherm de Mexico S.A. de C.V	Mexico
Gentherm Canada ULC	Canada
Stihler Electronic GmbH	Germany
Gentherm U.K. LTD.	United Kingdom
Gentherm Luxembourg I S.a.r.l.	Luxembourg
Gentherm Luxembourg II S.a.r.l	Luxembourg
Gentherm Macedonia DOOEL	Macedonia

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated February 20, 2020, with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of Gentherm Incorporated on Form 10-K for the year ended December 31, 2019. We consent to the incorporation by reference of said reports in the Registration Statements of Gentherm Incorporated on Form S-3 (File No. 333-202561) and on Forms S-8 (File No. 333-139868, as amended, 333-164990, as amended, 333-176884, as amended, 333-181975, as amended, 333-189442, and 333-218155).

/s/ GRANT THORNTON LLP

Southfield, Michigan
February 20, 2020

POWER OF ATTORNEY

Each of the undersigned, being a Member of the Board of Directors of Gentherm Incorporated (the "Registrant"), hereby severally constitutes and appoints Phillip Eyler, the Registrant's Chief Executive Officer, with full powers of substitution and resubstitution, his true and lawful attorney, with full powers to sign for him, in his name, in the capacity indicated herein, (a) the annual report of the Registrant for the fiscal year ending December 31, 2019 on Form 10-K and (b) any and all amendments to such Form 10-K, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes said attorney might or could do in person, and hereby ratifying and confirming all that said attorney, or his substitute or substitutes, shall do or cause to be done by virtue of this Power of Attorney. This power of attorney may be executed in separate original or facsimile counterparts.

IN WITNESS WHEREOF, the undersigned have executed this instrument this 18th day of February, 2020.

/s/ Francois Castaing
Francois Castaing

/s/ Sophie Desormière
Sophie Desormière

/s/ Maurice Gunderson
Maurice Gunderson

/s/ Yvonne Hao
Yvonne Hao

/s/ Ronald Hundzinski
Ronald Hundzinski

/s/ Charles Kummeth
Charles Kummeth

/s/ Byron Shaw
Byron Shaw

/s/ John Stacey
John Stacey

CERTIFICATION

I, Phillip Eyler, certify that:

1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2019 of Gentherm Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Phillip Eyler

Phillip Eyler

President & Chief Executive Officer

February 20, 2020

CERTIFICATION

I, Matteo Anversa, certify that:

1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2019 of Gentherm Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Matteo Anversa

Matteo Anversa
Chief Financial Officer
February 20, 2020

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K for the period ended December 31, 2019 of Gentherm Incorporated (the "Company") as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Phillip Eyler, President & Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1). The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2). The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Phillip Eyler
Phillip Eyler
President & Chief Executive Officer
February 20, 2020

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K for the period ended December 31, 2019 of Gentherm Incorporated (the "Company") as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Matteo Anversa, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1). The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2). The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Matteo Anversa
Matteo Anversa
Chief Financial Officer
February 20, 2020