

Be equipped for tomorrow's materials

Annual report 2020



IMPORTANT CONSOLIDATED FIGURES AT A GLANCE

EUR'000	2020	2019	2018
Sales revenues	137,036	130,968	96,783
Industrial Systems	45,599	45,170	37,323
Semiconductor Systems	91,437	85,798	59,460
Gross profit	43,174	37,697	31,054
in % sales revenues	31.5	28.8	32.1
R&D expenses	4,593	4,753	3,438
EBITDA	22,748	16,213	12,276
in % sales revenues	16.6	12.4	12.7
Operating result (EBIT)	18,518	12,305	9,468
in % sales revenues	13.5	9.4	9.8
Consolidated net result	12,729	7,713	5,968
in % sales revenues	9.3	5.9	6.2
Total assets	177,245	180,933	162,155
Shareholders' equity	69,314	57,315	50,797
Equity ratio in %	39.1	31.7	31.3
Employees as of 31,12,	553	528	470
Incoming orders	92,716	131,103	134,986
Order backlog	124,955	170,576	171,513
Book-to-bill-ratio	0.68	1.00	1.39
Cash Flow from operating activities	8,065	-591	11,652
Net financial position	26,778	21,031	37,010



PVA TePla AG

AS A VACUUM SPECIALIST FOR HIGH-TEMPERATURE AND PLASMA TREATMENT PROCESSES, PVA TEPLA AG IS ONE OF THE WORLD'S LEADING SYSTEM ENGINEERING COMPANIES IN THE FIELDS OF HARD METAL SINTERING, CRYSTAL GROWING, THE USE OF PLASMA SYSTEMS FOR SURFACE ACTIVATION AND ULTRA-FINE CLEANING AS WELL AS SYSTEMS FOR QUALITY INSPECTION.

INNOVATIVE DEVELOPMENTS

With its systems and services, PVA TePla enables and supports the innovative manufacturing processes and developments of its customers, primarily in the semiconductor, hard metal, electrical/electronic and optical industries – as well as in the energy, photovoltaic and environmental technologies.

INDIVIDUAL SOLUTIONS

The company provides its customers with customized solutions from a single source. These range from technology development through tailor-made design and construction of production facilities right up to an after-sales service that covers all four corners of the globe.

DEVELOPMENT OF NEW APPLICATION FIELDS

Together with its customers, the PVA Group uses tailor-made systems to open up the latest fields of application - be it the next generation of wafers for the semiconductor or photovoltaic industry, metal powder technology, new crystals for the optoelectronic industry or further developments of materials.

FOR OUR SHAREHOLDERS		GROUP FINANCIAL STATEMENTS	54
Foreword by the Management Board	4	Group Notes	55
Silicon Carbide: Crystal of the Future	6	Responsibility Statement	111
Report from the Supervisory Board	8	Auditor's Report	112
PVA TePla on Capital Markets	14	Financial Calendar / Imprint	119
MANAGEMENT AND GROUP MANAGEMENT REPORT	19		

Foreword by the Management Board

DEAR SHAREHOLDERS AND BUSINESS PARTNERS,

In many respects, fiscal 2020 has been an extremely challenging and yet highly successful year for our company. The global outbreak of the COVID-19 pandemic has impacted economic developments around the world in a way that would have been scarcely imaginable at the start of last year. The resulting uncertainty had a direct impact on our markets and customers, placing unprecedented demands on the PVA TePla Group in virtually all dimensions of business management. In particular, the COVID-19 pandemic has affected individual regional markets, for example in Asia, and a slew of projects were postponed. Fortunately, zero orders were canceled by our customers, and we have begun 2021 with a very solid order back-log of EUR 125 million.

COVID-19 presented us with considerable challenges for which we had to find solutions quickly: production plants had to be converted to coronavirus-compliant working methods and hygiene concepts, and supply chains and customer contacts in sales and service had to be safeguarded while operating under travel restrictions.

We successfully overcame this acid test together with our customers and thanks to a fantastic and dedicated performance by the entire PVA TePla team. We would like to take this opportunity to sincerely thank all of you.

Despite the COVID-19 restrictions, in recent years we have set out our strategic roadmap and significantly increased our earnings power in virtually all areas.

In 2020 alone, our EBIT improved by almost 50% to an outstanding EUR 18,5 million. Enhancing our supply chains, for example by establishing our own pressure vessel manufacturer in Italy in 2019, paid off during the crisis and will continue to do so. In cooperation with research institutions, we are working intensively to continue developing processes to further perfect material properties. Customers around the world value this unique expertise that we have accumulated over the decades. We have therefore created a foundation on which to continue our profitable growth in the long term.

The development of our performance indicators also clearly reflects this. Consolidated sales revenues increased by 5% as against 2019 to EUR 137 million and operating EBITDA rose by around 40% to EUR 23 million. Moreover, PVA TePla AG is very solidly positioned with a strong balance sheet and further improvement in its equity ratio.

This financial basis has allowed us to further expand our technology leadership in metrology with a key strategic acquisition in the US. OKOS Solutions in Virginia is a leading producer of ultrasound measuring equipment. OKOS develops and builds measuring equipment for the quality assessment of high-tech materials in industrial applications, such as aerospace, and for the semiconductor market. By acquiring this company, the PVA TePla Group is substantially improving its access to the US market for this product area.

Thanks to a cooperation agreement and a minority investment in the mid-sized high-tech company MPA Industrie in France, we have the chance to continue the strategic development of the extremely attractive technology field of silicon carbide (SiC). In conjunction with this cooperation, we will further enhance our expertise in the process technology of SiC components and coatings, not to mention the global marketing of the systems required for this. These are SiC structural components for applications in the semiconductor industry, fiber-reinforced ceramics in the aerospace industry, among others, and SiC coatings for components used in the generation of renewable energy. The PVA TePla Group is thereby strengthening its technology position on growth markets and supplementing its product portfolio in line with the Group's strategy.

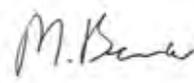
The megatrend of digitization, which has received a fresh boost from the pandemic, forms the core for future business development. The focus is on the wafer industry, the more advanced stages of the semiconductor industry value chain and the market for industrial high-tech materials. We are constantly working on a corporate culture geared even more closely towards customers and markets with a focus on innovation, in order to even better leverage the potential of our technologies and solutions while at the same time tapping new business areas.

With this strategy built on our internationally unique technological expertise and focused on the global growth markets, we will continue to strengthen the PVA TePla Group in the long term and expand its market position.

In view of the existing project structure in the order backlog, we expect sales revenues in the range of EUR 140 - 150 million and an operating result before taxes, depreciation and amortisation (EBITDA) of between EUR 18 and 20 million in the 2021 financial year.

Currently, the Executive Board is already seeing significant growth rates in order intake for 2021 compared to the same period of the previous year and expects this development to continue over the course of the year.

We would like to thank our shareholders for their trust in these uncertain times, and look forward to continuing PVA TePla AG's journey in your interests.



Manfred Bender
CEO



Alfred Schopf
CEO



Jalin Ketter
CFO



Oliver Höfer
COO



Dr. Andreas Mühe
CTO

Silicon Carbide: Crystal of the Future

As a leading supplier of crystal growing systems, PVA TePla has a particular focus on the ongoing advancement of silicon carbide technology. After all, demand for silicon carbide (SiC) is increasing. This is due primarily to the fact that wafers produced from this material are a decisive component not only for the e-mobility growth market, but also for a large number of additional future-oriented industrial applications. Crystal has numerous advantages against traditional silicon (Si). PVA TePla is planning to make a higher level of investment in expanding this area. In doing so, the Company is leveraging the potential offered by these growth markets over the next few years and is considerably strengthening its position in wafer manufacturing, a decisive area for the semiconductor industry.

MATERIAL WITH MANY ADVANTAGES

There is currently great demand for semiconductors made from silicon carbide. With their various superior properties, they are considered as the technology of the future for electromobility and digitalizing industry. Silicon carbide has a convincing advantage against traditional silicon for wafer manufacturing with numerous benefits, e.g. its use considerably lowers both switching losses and chip size, while at the same time increasing switching frequency. This results not only in lower system costs but also energy consumption.

KEY TECHNOLOGY FOR ELECTROMOBILITY

SiC applications support two very important areas in the ongoing development of electric vehicles - they give them a greater reach and at the same time lower the weight. One example of crystal deployment is deployment in the main inverter which provides the e-auto with electricity, as well as in onboard chargers and in charging stations where SiC components significantly reduce charging time. Other applications include industrial systems where power semiconductors made from silicon carbide are needed for drives in the context of ongoing automation, and the area of renewable energies.

HIGH GROWTH POTENTIAL

On the basis of expanding electromobility alone, demand for silicon carbide over the next few years will rise significantly. Conservative estimates indicate that the global share of e-cars will be of the order of 30% by 2030. As a result manufacturers will need some 6,000 crystal growing systems, such as PVA TePla offers. Bolder forecasts see the market widening to up to 80% of vehicles by the end of the decade, something which will result in correspondingly greater demand for growing systems. In addition, high growth rates are also expected from industrial customers.

REWARDING INVESTMENT

PVA TePla has many years of experience and great expertise in manufacturing crystal growing systems and the Company plans to further expand this area in the future. A focus here is on silicon carbide technologies. In the future, PVA TePla plans to make increasing investments in the complex process expertise relating to SiC crystal growing and also in growing crystals for 8-inch diameter wafers.

Report by the Supervisory Board of PVA TePla AG on fiscal year 2020

Dear Shareholders,

In fiscal year 2020, PVA TePla AG delivered an extraordinary performance. Despite the impact of the COVID-19 pandemic, the Company displayed impressive operating strength.

On the basis of an acquisition and an investment, the PVA TePla Group took another step on the way to future growth in important technology markets. Furthermore, in fiscal year 2020 the Supervisory Board successfully completed the succession process for the new PVA TePla AG Management Board headed by Manfred Bender, who has been the CEO since January 1, 2021 alongside Alfred Schopf. Outstanding conditions have thus been created for the successful future development and growth of a focused PVA TePla Group.

In the reporting year, the Supervisory Board performed in full all the duties required of it by law, the Company's Charter and its Rules of Procedure. We monitored the Management Board in the management of the Company on the basis of the extensive Management Reports presented in written and verbal form and providing ongoing advice. In addition, there was a regular exchange of information between the Chairman of the Supervisory Board and the CEO as well as the other members of the Management Board. In this way, the Supervisory Board was always informed about the intended business policy, including finance, investment and human resources planning, the profitability of the Company, the development of business and the situation at the Company and the Group.

The Supervisory Board was directly involved in all decisions of fundamental importance for the Company at an early stage and discussed them intensively and in detail with the Management Board. To the extent that decisions or measures of the management required Supervisory Board approval on the basis of the law, the Company's Charter and its Rules of Procedure, after intensive examination and discussion the members of the Supervisory Board granted this approval.

TOPICS IN THE FULL SUPERVISORY BOARD

In the reporting year, there were four scheduled and two extraordinary meetings. Due to the special circumstances of the COVID-19 pandemic, the meetings were held as virtual meetings or a face-to-face meeting with the option of participation in virtual form. In some cases participants took part in meetings via telephone. One of the two extraordinary meetings took place entirely as telephone conference. All Supervisory Board members participated in all the Supervisory Board meetings. The Supervisory Board also meet without the Management Board. The subject of these meetings was the appointment of Manfred Benders as the new PVA TePla AG CEO as well as Management Board and Supervisory Board matters.

Our regular discussions in the full Supervisory Board included the project sales revenues and profit developments across the PVA TePla Group.

The Supervisory Board also thoroughly discussed optimizing the technology portfolio and taking related measures to ensure ongoing profitable growth in the core markets targeted by the PVA TePla Group's subsidiaries. As a result, a key focus of our activities in the past fiscal year was the personnel advancement of the Management Board, in particular the CEO succession planning and the future strategic development of the Company. With the realignment of the PVA TePla AG management team, the foundations were laid for the future successful work of the Company. The acquisition of OKOS Solutions, LLC and the investment in MPA Industrie SA secure growth in important areas of technology.

In preparation for these meetings, all Supervisory Board members received detailed reports on the situation at the PVA TePla companies alongside other information such as internal control reports and meeting minutes. The Supervisory Board was able to gain a sufficient understanding of the business situation from current financial figures, updated forecast reports and development plans (orders, sales revenues, competition, market share) before and during the meetings. Departures from established budgets were explained and justified in detail.

The meeting held on March **20, 2020** focused on the annual and consolidated financial statements for fiscal year 2019 and the related deliberations and resolutions. A further focus was the discussion of M&A activities and possible projects in this connection. The Supervisory Board also addressed and approved the draft agenda for the 2020 Annual General Meeting.

The extraordinary Supervisory Board meeting in **April 27, 2020** discussed M&A activities and the importance of regional markets for the PVA TePla Group. Financing issues and concluding a syndicate agreement were also discussed. The process for holding a virtual Annual General Meeting was described.

At the extraordinary phone meeting held on **May 7, 2020**, a draft of the employment contract for Manfred Bender was discussed.

At the meeting on **June 26, 2020**, the Supervisory Board dealt in depth with the business situation and projects underway at the individual subsidiaries. The personnel development at the management levels of the subsidiaries was another key topic. In addition, there was intensive discussion on M&A activities. Here the focus was on the takeover of OKOS Solutions, LLC in Manassas, Virginia (USA), a leading producer of ultrasound measuring equipment, and the staged entry at the French company, MPA. The sustainability report to be prepared for the first time for PVA TePla AG for the fiscal year 2020 was discussed in detail. Another focus on the meeting was risk reporting by subsidiaries.

At its meeting on **September 17, 2020**, the Supervisory Board spoke at length about business development, and particularly about developments in sales revenues, incoming orders and the earnings situation of each of the subsidiaries in the current year.

Sustainability as a topic was discussed in connection with potential certifications. The Supervisory Board resolved concluding a contract to acquire OKOS Solutions, LLC.

The Supervisory Board meeting on **November 23, 2020** focused on corporate planning for the PVA TePla Group between 2021 and 2023 for the holding company and for the individual subsidiaries. The Supervisory Board also received extensive reports from the managing directors of the largest subsidiaries on the relevant project statuses and business planning. All budgets were approved. Questions relating to personnel planning in the individual subsidiaries were discussed. The declaration of compliance with the German Corporate Governance Code was discussed and approved.

CORPORATE GOVERNANCE AND DECLARATION OF COMPLIANCE

At the meeting on November 23, 2020, the Management Board and Supervisory Board discussed and resolved the declaration of compliance with the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG). The current declaration of compliance was made available to the shareholders on a permanent basis on the Company's website at <https://www.pvatepla.com/investor-relations/corporate-governance>. The Management Board reports on corporate governance, including for the Supervisory Board, in accordance with F. 5 of the Code on the Company's website at: <https://www.pvatepla.com/en/investor-relations/corporate-governance>.

The election of the auditors Ebner Stolz GmbH & Co. KG, Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft to audit the annual financial statements and consolidated financial statements for fiscal year 2020 was proposed to the Annual General Meeting. The Supervisory Board satisfied itself of the independence of the auditor in accordance with Section 107(3) Sentence 2 AktG and obtained and assessed a corresponding declaration of independence. Pursuant to a resolution of the Supervisory Board, the auditor may also provide certain due diligence services including any additional services, training services as well as other advisory services that may arise in this context. Following approval by the Annual General Meeting, the Supervisory Board issued the mandate to the auditor and set the audit fee. The main focal points of the audits of the annual and consolidated financial statements for 2020 were also coordinated between the Supervisory Board and the auditor. In fiscal year 2020, the statutory auditor was also engaged to carrying a review of the non-financial declaration which was to be prepared for the first time.

The members of the Supervisory Board independently carried out necessary training and educational measures required for their tasks, e.g. relating to changes of the general legal situation and on new future-oriented technologies.

The self-evaluation was performed on the basis of a detailed questionnaire and interviews, and the review of the efficiency of the Supervisory Board provided for in the German Corporate Governance Code was thus carried out.

DEPENDENCY REPORT

The Management Board prepared a dependent company report for the reporting year in accordance with Section 312(3) AktG. This report was audited by Ebner Stolz GmbH & Co. KG, Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft and issued with an unqualified audit opinion with the following wording: "In accordance with our duly performed audit and assessment, we confirm that 1) the factual statements in the report are correct and that 2) the amounts paid by the companies with respect to the legal transactions listed in the report were not unduly high." The dependent company report was submitted to the Supervisory Board, which subjected it and the legal transactions and measures listed therein to an independent review pursuant to Section 314(2) AktG. This did not give rise to any objections. At the meeting on March 19, 2021, the auditor reported on the main findings of the audit.

AUDIT OF THE ANNUAL AND CONSOLIDATED FINANCIAL STATEMENTS

Ebner Stolz GmbH & Co. KG, Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft audited the annual financial statements and consolidated financial statements for the year ended December 31, 2020 and the management report and Group management report for fiscal year 2020 of PVA TePla AG.

The auditor found that the present annual and consolidated financial statements were prepared in compliance with the German Commercial Code (HGB) and the International Financial Reporting Standards (IFRS) and provided a true and fair view of the net assets, financial position, and results of operations. The annual and consolidated financial statements along with the management report and Group management report were issued with an unqualified audit opinion. The financial statements together with the management reports and the respective audit reports of the auditor were sent to each member of the Supervisory Board. The Supervisory Board assessed them and discussed them in detail at the meeting on March 19, 2021. At this meeting, the auditor reported on the main findings of the audit. We examined the annual financial statements, the management report and the auditor's statement on the assessment of the situation by the Management Board as well as the recommendation for the appropriation of retained earnings, the consolidated financial statements and the Group management report. There were no objections. We therefore approve the results of the audit of the financial statements. We approve the annual financial statements and consolidated financial statements prepared by the Management Board. The annual financial statements are thus adopted in accordance with Section 172 Sentence 1 AktG.

We are in agreement with the management reports and, in particular, the assessment of the future development of the Company. The Supervisory Board endorses the Management Board's proposal to carry over the reported unappropriated surplus to new account.

CHANGES IN THE COMPOSITION OF THE SUPERVISORY BOARD AND THE MANAGEMENT BOARD

As of the 2020 Annual General Meeting, the Management Board team was extended by two positions, Andreas Mühe as CTO and Jalin Ketter as CFO. As of January 1, 2021, Manfred Bender started as CEO at PVA TePla AG. As Co-CEO, Alfred Schopf will leave office at the end of June 2021.

There were no personnel changes in the Supervisory Board.

OUTLOOK FOR FISCAL 2021

We anticipate that COVID-19 will not sustainably negatively impact the global economic in the current fiscal year. In the segments of the semiconductor market relevant for the PVA TePla Group, the Supervisory Board sees a higher level of capacity expansion. In view of the order backlog as of December 31, 2020 and the positive project expectations in the individual product areas, in the forecast for the fiscal year 2021 we are anticipating stable growth for the PVA TePla Group. It is probable that this development will be reflected particularly in incoming orders.

THANKS FROM THE SUPERVISORY BOARD

On behalf of the Supervisory Board, I want to thank the members of the Management Board and all employees of the PVA TePla Group for their tireless service and constructive collaboration in the past fiscal year.

Wettenberg, March 2021

On behalf of the Supervisory Board



Alexander von Witzleben
Chairman of the Supervisory Board of PVA TePla AG



PVA TEPLA ON CAPITAL MARKETS IN FISCAL 2020

EQUITY MARKET - STOCK EXCHANGE

The development of the capital markets around the world was mainly defined by the outbreak and course of the COVID-19 pandemic in 2020. The DAX began the year at 13,385 points and delivered a solid performance. It even went on to achieve a new all-time high of 13,795 in February. During the spring, COVID-19 increasingly spread throughout Europe; public life in Germany was severely curtailed by the first lock-down in March. Shops and schools, including preschools, were largely closed and strict lockdown and contact restrictions defined day-to-day life. The DAX tumbled hard to its low for the year of 8,441 points on March 18. But it recovered quickly, even though the real economic performance of most companies failed to keep up. The reasons for the rapid recovery of Germany's benchmark index included expansive government fiscal policy and central bank monetary policy, a decline in COVID-19 numbers in Germany and thus hopes for recovery on the real economy. The lack of investment alternatives to the stock market also stimulated demand. All this had already been anticipated by the stock market with its quick recovery. Events over the course of the year were defined by news about the development of the pandemic and the market's response was highly volatile at times – but nonetheless the DAX remained mostly positive after the crash in March despite the cuts. In late fall, a worrying resurgence of the virus with high case numbers, the US presidential election at the start of November and the imminence of Brexit soon after once again sparked pressure to sell on the stock markets. The DAX then rallied at the end of the year, which was accelerated enormously by the progress in vaccine development and the rapid approval process. A new all-time high of 13,903 points was then reached on December 29 and the DAX ended the year at 13,718 points.

PERFORMANCE OF PVA TEPLA'S SHARES

PVA TePla AG's shares began fiscal 2020 at a stable level of EUR 15.30. The spread of COVID-19 triggered severe price losses in the first quarter of 2020. The share price fell to its lowest level for the year at EUR 6.42 in the middle of March. A steady and stable economic recovery began at the start of April, which saw PVA TePla's shares benefit more than most. The shares reached their highest point of EUR 19.62 at the end of the fiscal year. In addition to the generally good sentiment on the stock markets, PVA TePla's shares also benefited from the excellent market prospects for companies on the semiconductor market, driven by the surge in digitization triggered by the pandemic.

LIQUIDITY OF PVA TEPLA SHARES

The average daily trading volume of PVA TePla's shares was around 51,000 in the reporting period. This is almost double the figure for the same period of the previous year (around 25,000 shares) and significantly increases our appeal to institutional investors in particular. Together with the share price, market capitalization also increased to EUR 426 million as of December 31, 2020 (previous year: EUR 332 million).

RESEARCH-COVERAGE

In total, seven international banks and brokers published regular equity research reports on PVA TePla in fiscal 2020. All seven of the financial analysts monitoring our shares as of December 31, 2020 issued a Buy recommendation. PVA TePla's shares were covered by the following financial analysts in the past year:

Bank	Analyst	Location
Bankhaus Lampe	Veysel Taze	Düsseldorf
Berenberg	Gustav Froberg	London
SMC Research	Adam Jakubowski	Münster
Matelan	Hartmut Moers	Bonn
Hauck & Aufhäuser	Tim Wunderlich	Hamburg
Jefferies	Constantin Hesse	London
Deutsche Bank	Uwe Schupp	Frankfurt

Constantin Hesse at Jefferies International began covering the shares in 2020.

OUR INVESTOR RELATIONS ACTIVITIES

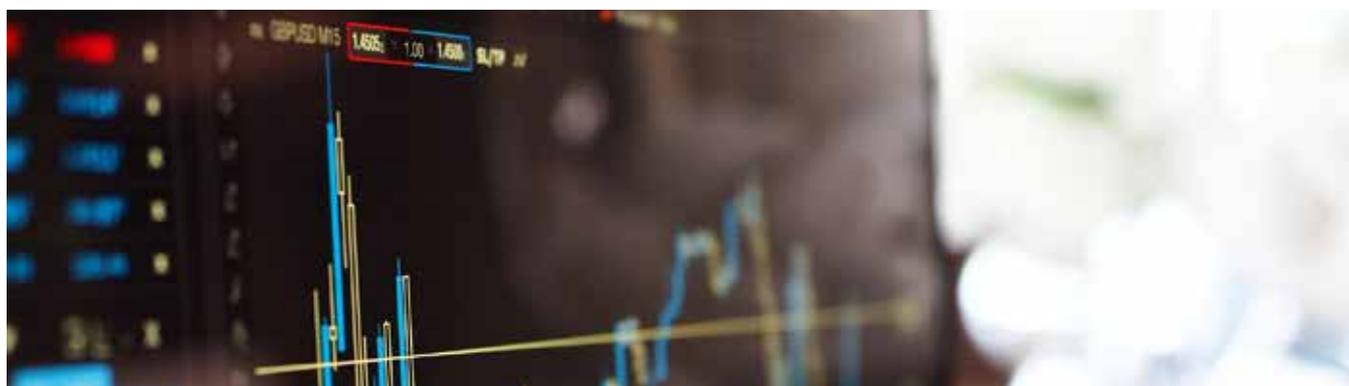
We strive for transparency and openness as part of an ongoing dialog with our shareholders and capital market participants. Our investor relations work aims to cement trust in our company and thus in our shares and to ensure a fair valuation on the capital market. To guarantee this, we provide our shareholders and the capital market with precise, up-to-date and relevant information on the PVA TePla Group's business operations and the market environment for the product areas in which we operate.

In individual and group discussions at investor roadshows and conferences that, aside from at the beginning of the year, were held virtually, our management and investor relations team answered questions from investors and financial analysts on the PVA TePla Group's business strategy and performance and on sector and market trends. There was a sharp increase in the number of talks with investors in 2020 as a result of the higher interest in PVA TePla. Discussions with institutional and private investors mainly focused on the long-term prospects for the semiconductor market – in particular in the areas of silicon and silicon carbide crystallization, the operational profitability of the PVA TePla Group and the impact and management of the COVID-19 pandemic.

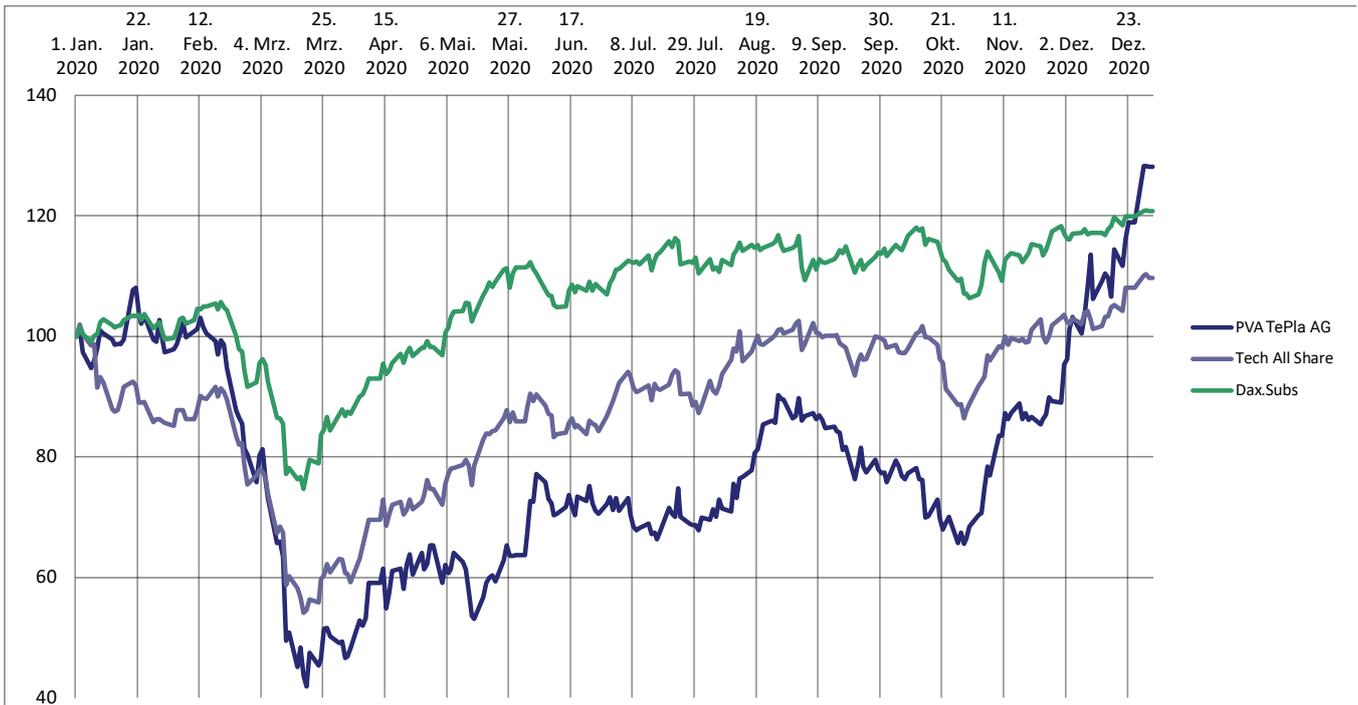
PVA TePla shares key figures		2020	2019
Earnings per share (EPS)	EUR	0.59	0.27
Annual high	EUR	19.62	15.56
Annual low	EUR	6.42	10.22
Closing rate as of Dec. 31	EUR	19.60	15.30
Performance of PVA TePla shares	%	+28	+25
Performance of Technology All Share	%	+21	+32
Performance of DAXSubs. Advanced Industrial Equipment	%	+10	+65
Number of shares at year-end	Mio.	21.75	21.75
Market capitalization at year-end	Mio. EUR	426	332

Current shareholder structure

Streubesitz (Freefloat)	74,5%
PA Beteiligungsgesellschaft	25,5%



Performance of PVA TePla shares from January 1, 2020 to December 31, 2020





MANAGEMENT AND GROUP MANAGEMENT REPORT

1.	GENERAL INFORMATION	20	RESPONSIBILITY STATEMENT	52
2.	BASIC PRINCIPLES OF THE GROUP	21		
3.	ECONOMIC REPORT	27		
4.	REPORT ON RISKS AND OPPORTUNITIES	36		
5.	FORECAST REPORT	45		
6.	REMUNERATION REPORT	47		
7.	ASSUMPTION OF RELEVANT DISCLOSURES	50		
8.	DEPENDENCY REPORT	51		
9.	COMPANY MANAGEMENT DECLARATION	51		
10.	NON-FINANCIAL GROUP REPORT IN ACCORDANCE WITH SECTION 315B HGB	52		

This financial report comprises the combined Management Report, the consolidated financial statements and the Group Notes. Moreover, the Company Management Declaration available at <https://www.pvaTePla.com/en/pva-TePla-service/investor-relations/corporate-governance> forms an integral part of this combined Management Report.

Management and Group Management Report

1. GENERAL INFORMATION

Reporting Company

PVA TePla AG, Wettenberg (hereinafter "PVA TePla AG") is a stock corporation in accordance with German law. The Company is entered in the commercial register of the Gies-sen Local Court under HRB 6845 and is domiciled in 35435 Wettenberg. PVA TePla AG's shares have been listed in the Prime Standard of the Frankfurt Stock Exchange since June 21, 1999 (ISIN: DE0007461006).

PVA TePla AG and its subsidiaries (hereinafter „PVA TePla Group“) produce systems where technology companies manufacture and process materials, such as wafers, some of which are used in the semiconductor industry. The focus of operating activities in the PVA TePla Group is the development, manufacture and sale of processes, products, systems and services in materials technology, plasma and ion beam technology, metrology and inspection technology for finely structured objects and vacuum technology.

With locations in Germany, Italy, the USA, China, Taiwan and Singapore, the PVA TePla Group maintains business relationships around the world.

Basis of Presentation

Accounting and Auditing

PVA TePla AG prepares its consolidated financial statements and the interim report in accordance with the International Financial Reporting Standards (IFRS), as adopted by the EU. The annual financial statements are prepared in accordance with the provisions of the German Commercial Code (Handelsgesetzbuch - HGB). The Annual General Meeting on June 26, 2020 appointed Ebner Stolz GmbH & Co. KG Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, Frankfurt am Main, as the auditor for the annual financial statements and the consolidated financial statements for fiscal 2020.

There are no business, personal, financial or other relationships between the audit firm, its bodies and audit staff and the PVA TePla Group that could establish doubt as to the auditor's independence. Ebner Stolz GmbH & Co. KG Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft was not involved in auditing or preparing PVA TePla AG's annual financial statements or consolidated financial statements.

A combined management report (hereinafter also referred to as the „management report“) was prepared for fiscal 2020. This management report thus combines the management report of PVA TePla AG and the Group management report of the PVA TePla Group and was prepared in accordance with Sections 289, 289a, 289f, 315, 315a and 315d HGB and with the German Accounting Standards (DRS) no. 17 and 20.

Difference between Parent Company and Group

To make it clear which disclosures refer to the parent company and which to the Group, the parent company is always referred to as „PVA TePla AG“. The term „PVA TePla Group“ or „Group“ is used for disclosures relating to the Group. Where this distinction is not made and no other indication is given, the disclosures refer both to the Group and to the parent company.

Fiscal Year

PVA TePla AG's fiscal year 2020 began on January 1, 2020 and ended on December 31, 2020. The corresponding previous year thus covers the period from January 1, 2019 to December 31, 2019.

Rounding Differences

Unless otherwise indicated, all amounts have been stated in millions of euro (EUR million). The figures in these financial statements may contain rounding differences of +/- one unit (EUR '000, % etc.) for reasons related to the calculations.

Forward-Looking Statements

This management report contains forward-looking statements. These statements represent own estimates and assumptions, including from third parties (e.g. statistics relating to the industry and the global economy), at the time they were made or the date of this report. Forward-looking statements are always subject to uncertainty. If these estimates or assumptions prove to be inaccurate or only partly accurate, actual results may deviate from expectations, in some cases substantially.

2. BASIC PRINCIPLES OF THE GROUP

2.1. Group Structure and Organization

Legal Structure of the Group

PVA TePla AG operates as a management and functional holding company of the PVA TePla Group and is responsible for managing the PVA TePla Group. It also organizes the PVA TePla Group's technology and associated intellectual property.

PVA TePla AG's responsibilities also include tasks relating to strategic orientation, such as expanding the product portfolio, acquisitions and financial issues for the Group as a whole. The holding company is also responsible for corporate identity, investor relations and marketing.

PVA TePla AG is the sole shareholder of the companies included in the consolidated financial statements. As of December 31, 2020, it directly (or indirectly) held a controlling interest in eight German (previous year: eight) and eight foreign (previous year: six) subsidiaries in China, Italy, Singapore, Taiwan and the US. The holding company extended loans only to subsidiaries and the subsidiaries' subsidiaries. The holding company is essentially funded by allocating apportionable costs (e.g. key services such as quality management, accounting and controlling) to the operating companies, leasing buildings and intellectual property (including to third parties) and from interest income from lending to subsidiaries.

OKOS Solutions, LLC in Manassas, Virginia (USA) acquired in the reporting year and has been included in the consolidated financial statements of PVA TePla AG on a fully consolidated basis since November 6, 2020 (date of acquisition). There was no material impact on the net assets, financial position or profit or loss of the PVA TePla Group. For further details, please see the notes on the consolidated group in section „C. Companies Included in Consolidation, Principles of Consolidation and Currency Translation“ of the Group Notes.

Business Activities

The PVA TePla Group, headquartered in Wetzlar, Germany, is an independent technological leader supplying systems for the production and refinement of high-tech materials which are processed under high temperatures, vacuum, high pressure and in plasma, for example.

Offering **semiconductor systems** for front and back-end production, the PVA TePla Group is a major technology partner and system supplier for the global semiconductor industry. This also means that it holds a key position in the value chains of rapidly growing global industries such as microelectronics, high performance electronics and e-mobility. With systems for industrial crystal growing, quality inspection, plasma cleaning systems and related software and process technologies, it provides a wide range of processes and products for the semiconductor industry.

The PVA TePla Group also produces **industrial systems**, in particular vacuum sintering systems for manufacturing structural materials and hard metal tools, graphite cleaning and coating furnaces and brazing and diffusion bonding systems.

The PVA TePla Group subsidiaries act as system suppliers for their customers. They purchase the majority of the components needed and use only quality-assured subcontractors. Their major strengths include the ability to manage capacities flexibly and subject to the order situation thanks to their low level of vertical integration in production. This allows the companies to drive forward growth while limiting investment and with a comparatively low capital commitment. A small number of parts are also manufactured in-house (asset light model). Systems are produced and installed and services (contract processing) provided mostly in Germany at the Wet-tenberg, Jena, Westhausen and Coburg sites. Outside Germany, products are produced at the Corona (USA) and Schio (Italy) sites, as well as at the Manassas (USA), which was added in 2020.

A significant portion of payment obligations from customer orders are covered by advance payments, which has a positive effect on the Group's liquidity management. This, as well as Group-wide cash pooling, allows the PVA TePla Group to keep short-term debt financing from banks to a minimum.

Business Segments

The PVA TePla Group divides its business activities into two divisions: Semiconductor Systems and Industrial Systems. Management, planning and controlling of PVA TePla Group are based on these divisions. Reporting in these two segments is also structured accordingly.

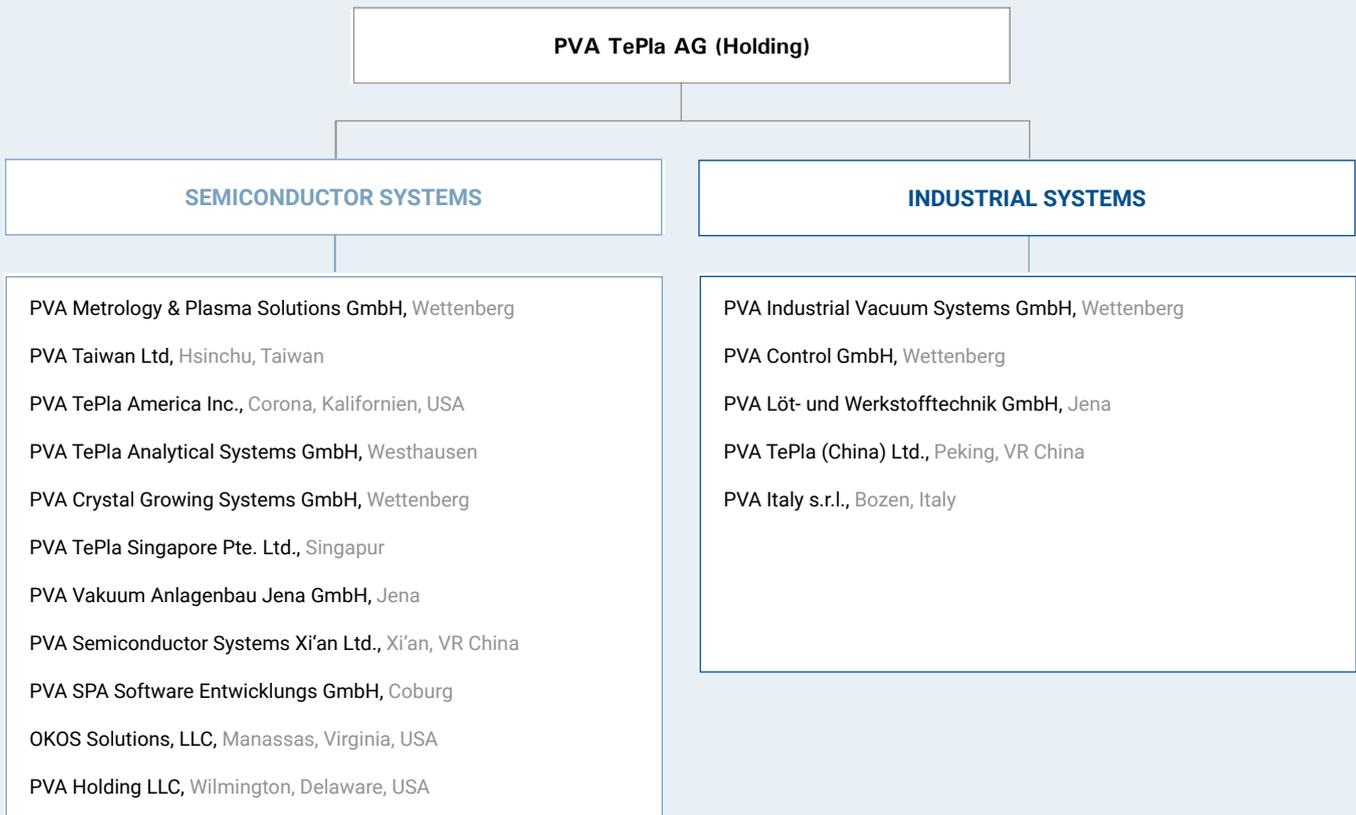
The Semiconductor Systems division covers the following fields:

- **Crystal growing systems:** Structural material technologies for aviation and aerospace, energy technology and hard metal tools, Silicon wafer technologies for microelectronics, silicon carbide wafer technologies for high-performance electronics and additional crystal growing technologies for an array of uses
- **Metrology systems:** Technologies for non-destructive quality control of wafers, complex semiconductor parts and high-tech industry materials
- **Plasma systems:** Structural material technologies for aviation and aerospace, energy technology and hard metal tools, Production technologies for micro-electronic-mechanical systems (MEMS) and high-brightness light-emitting diodes (HB LED) as well as technology for the fabrication of ultrathin wafers

The Industrial Systems division covers the following fields:

- **Industrial systems (advanced materials):** technologies for manufacturing structural materials for the semiconductor industry, aviation and aerospace, energy technology and hard metal tools
- **Innovation center** for vacuum process technology – especially in vacuum brazing, vacuum heat treatment and diffusion bonding

The organizational units and how the subsidiaries are allocated to the divisions are shown below.



Employees

Developments in Human Resources

More than ever in a challenging year such as 2020, which was marked by a global pandemic and thus required multiple last-minute changes to business processes, the PVA TePla Group owes its economic success to its highly qualified and motivated team. Once again, the establishment of human resources with an eye to the future as a key pillar of the strategy has paid dividends. High employee motivation will also be encouraged in the future so that customers can continue to enjoy outstanding service quality.

Personnel resources are managed in line with growth plans and the economic environment. In light of this, it is even more gratifying that staff cutbacks have largely been avoided even in these economically challenging times and that the existing team has actually been able to increase earnings.

Despite, or perhaps because of the COVID-19 pandemic, there was no easing of the shortage of skilled workers in fiscal 2020. The recruitment market proved to be extremely tight, as good employees are needed and potential candidates are unwilling to move jobs on account of the uncertain situation. Given this, the strategy of broadening personnel recruiting and also keeping training programs at a high level was maintained. Training spots are provided for IT specialists in system integration, industrial salespersons, mechanics and mechatronics engineers, sponsorships are concluded with schools and universities and pupils and students are offered orientation days and internships.

Specific apprenticeship programs were also developed for trainees in order to meet high demand for new employees with practical, hands-on training. Collaboration projects were also set up with universities to provide students (various subject areas) with practical training and supervise term papers, bachelor theses and master theses. Students are regularly trained under the dual vocational training and study system.

Equally, the aim is to continue boosting the company's position as an attractive employer for current and future employees. Employees and applicants value the exciting job opportunities offered by the PVA TePla Group as well as flexible working hours, a culture of remote working, part-time working opportunities and many other benefits such as company bikes (the employer leases a bicycle and gives it to employees) and subsidized company pension schemes.

These are complemented with an attractive payment, which is constantly adjusted to the cost of living.

Company Diversity

Diversity in terms of the people who work at the PVA TePla Group is as great as our locations worldwide are numerous. It forms the basis of the company's performance and success. By encouraging diversity at our company and not relying only on the local population to make up the workforce at our various sites, we can bring together the right people and create a work culture that promotes motivation, performance and satisfaction among line employees and our managers.

Staff

The PVA TePla Group had 553 employees as of the reporting date December 31, 2020 (previous year: 528). In the Semiconductor Systems division, the staff headcount rose from 268 as of the end of the reporting period to 286. This was chiefly a result of taking over the US metrology company OKOS Solutions, LLC in 2020. The number of employees in the Industrial Systems division increased slightly in 2020 to 226 (previous year: 221).

At 481 (previous year: 479), most employees were working in Europe. There were 43 employees (previous year: 25) in North America at the end of fiscal year 2020 and 29 (previous year: 24) in Asia.

At the end of 2020, 29 members of staff (previous year: 24) were enrolled in business or commercial training programs.

As of the end of 2020, PVA TePla AG employed a total of 41 people (previous year: 39).

2.2. Strategy

Key Market Influences

The PVA TePla Group operates in highly appealing expanding markets such as the semiconductor industry.

Processes in vacuums, at high temperatures, at high pressure and in plasma, are essential for producing high-tech materials.

The leading position in these areas of technology is supported in the long term by demand for the PVA TePla Group's range of services.

Expanding capacities in wafer production, vital for the growing microelectronics and high performance electronics industry, are a key driver of growth and established wafer manufacturers and new market players alike are all striving to significantly step up wafer production. Thanks to the PVA TePla Group's leading market position, it expects to benefit significantly from this development and considerably bolster sales of silicon crystal growing systems.

The high demand for electric vehicles represents another key opportunity to accelerate growth. According to market projections, silicon carbide (SiC) will increasingly be used for on-board and static charging facilities as the material boasts superior properties (heat resistance etc.) to those of silicon.

As an independent supplier of crystal growing systems for SiC, the PVA TePla Group also expects to experience a considerable surge in demand resulting from the expansion of SiC wafer capacities.

Non-destructive measuring and inspection of materials and components is – especially in the semiconductor industry – one of the most important stages of production. Increasingly strict design rules in the semiconductor industry will also increase demand for metrology systems in the future. With its expansive range of different technologies, the PVA TePla Group is also excellently positioned in this area.

Strategy

The PVA TePla Group's value-based and growth-driven strategy is designed to reap maximum benefits from positive, long-term trends in customer markets with the objective of achieving well above-average growth compared to the sector as a whole while taking on only limited risk. The main way to achieve this is by refining the technology portfolio on an ongoing basis, bolstering sales efforts in growth markets and consolidating strategic partnerships with suppliers and customers.

It also aims to boost profitability in project and service business, maintain capital commitment at an appropriate level using the business model of a low level of vertical integration in production and to steer the company's net assets, financial position and liquidity situation with a view to the future.

In order to further develop the technology portfolio in line with customer requirements, research and development focuses mainly on productivity and volume increases in the manufacturing process of high-performance materials - also using alternative manufacturing technologies. This is complemented by the refinement and automation of metrology systems for even more detailed material inspection and production line control.

This also includes the seamless integration of system technology and software control into the customer's infrastructure environment in line with Industry 4.0 requirements (see section „2.4. Research and development“). The PVA TePla Group's objective is to generate above-average growth in the area of future technologies, in particular in the Semiconductor Systems division. This will allow us to steadily increase profitability.

2.3. Management System – Financial Targets

The PVA TePla Group is headed by the Management Board of PVA TePla AG. It manages the company on its own responsibility, defines targets and the strategic orientation and manages how to implement the growth strategy. The Management Board is appointed, monitored and advised by the Supervisory Board of PVA TePla AG. The primary objective of corporate development is to increase shareholder value for all stakeholders in the long term and to generate sustained profitable growth. The planning required to manage the operational units and the resulting measures are based on long-term corporate planning, also taking into account developments in the competitive and market environment.

The PVA TePla Group uses exclusively financial indicators to manage the Group on a value and growth oriented basis. Planning and management are based chiefly on how sales revenues and earnings perform. The following two key financial performance indicators are calculated on a monthly basis (including for individual segments) and are the most important indicators for economic targets in fiscal 2020:

- **Sales revenues**
- **The operating result before interest, taxes, depreciation and amortization (EBITDA, EBITDA margin)**

These two key performance indicators are calculated, analyzed and planned on a Group-wide basis using a standardized system and are monitored with regard to meeting the financial targets. You can find detailed information on the development of the key financial performance indicators in the Economic Report and in the Forecast Report. Additional key financial performance indicators are also used for individual subsidiaries for micromanagement purposes (including incoming orders and the order backlog).

2.4. Research and Development

The Group-wide costs of research and development (F&D) totaled EUR 4.6 million in fiscal year 2020, on a level with the previous year's EUR 4.8 million. Here, it should be noted that the two PVA TePla Group divisions essentially carry out product and process developments as part of customer orders. The expenses incurred for such work are therefore only partly reported under research and development. The PVA TePla Group does not capitalize any development costs and so research and development expenses are expensed in the period in which they are incurred. For more details, see the relevant explanations in the Group notes under Note 2 „Research and Development Expenses“.

In addition to development work on new products and the software for these, the PVA TePla Group's R&D activities in fiscal 2020 included ongoing improvement programs for existing product lines. The aim of this development work is generally to reduce the cost of ownership for customers. Research work is often conducted as part of publicly funded projects, including in collaboration with customers.

Examples of our R&D work in fiscal 2020 include the following projects:

In the **Crystal Growing Systems business unit**, new crystal growing systems are being developed for the semiconductor market for the production of 300mm silicon crystals. The dimensions of these are also particularly suitable for being integrated into existing buildings with limited hall headroom.

These systems are thus ideal for lowering barriers to entry for new customers in the crystal growing systems business. A prototype is being built for the internal crystal growing laboratory at the Wettenberg site as part of an ongoing, public-sector funding project.

At the same time, work is ongoing on innovative demonstration processes to grow 300mm silicon crystals, which use an in-house process zone design to allow customers to keep up with state-of-the-art technology for 300mm semiconductor applications.

In the silicon carbide (SiC) crystal growing segment, work is underway on the completion of a fourth system generation that uses the PVT (Physical Vapor Transport) method. This is ideal for mass producing 6" SiC crystals and provides an opportunity to develop 8" SiC growing processes. Multiple units of this new system generation have already been ordered. In addition to 8" capacity, this system generation offers numerous improvements in terms of process stability and reproducibility, greater flexibility and far better networking and automation options for a larger machine park for mass production.

At the same time, progress is being made on developing a 6" SiC demonstration process in close collaboration with a university partner in order to demonstrate the suitability of the system to new customers. A milestone here was reached at the end of 2020 – the first 6" SiC crystal. This process will be developed further during 2021.

In the Float Zone (FZ) systems segment, a cooperation project was launched with a partner institute that aims to develop a 200mm FZ process in a PVA TePla system. The institute has many years of experience in FZ crystal growing. As well as demonstrating the feasibility of 200mm FZ crystals, the collaboration – which is to run for many years – will further consolidate and strengthen PVA TePla's market expertise.

In the **Metrology Systems business unit**, research in 2020 focused on Industry 4.0 solutions for the inline inspection of bonded and molded wafers and on inspection solutions for power electronics modules, in particular for use in e-mobility.

In the last fiscal year, a new concept for an ultra-sound measurement system was developed to speed up the inline volume inspection of power modules for electric cars and renewable energies. For this purpose, an 8-channel system for signal sampling was used for the first time. Extensive software developments ensure simultaneous scanning of the modules with eight transducers and increase throughput in mass production. The entire system was integrated into an automatic robot module, which inserts the components from magazines into the system, marks them with a laser and then inspects them non-destructively for defects in the volume. These developments benefited from the fact that the company has its own transducer production facilities (transducers are the central element of an ultrasound system). This means that ultrasonic transducers can be manufactured that have identical imaging properties on every channel. Additional solutions were created to link the analysis system with the customer's host computer.

High-purity and high-precision components are increasingly becoming a prerequisite in the semiconductor industry to meet the requirements of miniaturization. Innovative vacuum high-temperature systems have become increasingly important in the semiconductor industry in recent years. Due to their extraordinary process characteristics, component parts can be produced in the required, highest quality. For this reason, PVA TePla is developing a special product variant of a high-vacuum brazing furnace in the Vacuum Systems product area as part of a publicly funded research project, which is intended for brazing ceramic circuit carriers for high-performance electronics. Special attention is paid to the safe control of the high-temperature brazing process to achieve the highest product qualities.

In "high-vacuum brazing", the main focus is on the publicly funded cooperative project "reliable and cost-effective copper Si₃N₄ (silicon nitride) network as an interconnect device for power electronics", as well as various bilateral R&D projects relating to semiconductor technology, measurement technology and hydrogen. Silicon nitride features an outstanding combination of material properties. The core objective of the project is to develop reliable and cost-effective bonded copper Si₃N₄ substrate as an interconnect device for power electronics in battery-powered cars and charging stations.

3. ECONOMIC REPORT

3.1. Overview of Business Development

Macroeconomic and Sector Environment

The macroeconomic and industry conditions relate primarily to the subsidiaries of PVA TePla AG. However, as PVA TePla AG generates most of its income from profit transfer agreements with the subsidiaries, these general conditions are relevant not only to the PVA TePla Group as a whole but also for the holding company.

Macroeconomic Environment

Following a historic downturn in the second quarter of 2020, the global economy began to pick up again over the course of the year. Nevertheless, global industrial production and global trade in goods remained in the shadow of the pandemic. The supply and demand shock triggered by the outbreak of the COVID-19 virus and the lock-downs imposed as a result massively restricted economic activity across all regions of the world in the first half of the year. According to the IfW Kiel - Institute for the World Economy, global gross domestic product declined by 3.8% in 2020 (2019: +2.9%).

Economic performance varied substantially between individual regions. While gross domestic product in Europe seems, to all appearances, to have fallen again in the fourth quarter of 2020, GDP in the rest of the world has likely seen another upturn, with China enjoying extremely strong economic momentum.

Eurozone: Gross domestic product in the eurozone decreased by 7.2% in 2020 (2019: +1.1%). To varying degrees, the spring and fall COVID-19 waves hit most European countries and governments imposed large-scale restrictions to slow the spread of the virus.

China: Economic activity in China had already largely normalized across large swathes of the economy in 2020. China thus generated GDP growth of 1.8% (2019: +6.1%). China has made particularly good progress in recovering from the economic downturn caused by the pandemic. Industrial production already largely recovered in the spring and year-on-year growth rates of 7% since September 2020 are even slightly higher than before the crisis. A sharp increase in exports contributed to this.

US: While the US economy continued to recover at the end of 2020, growth momentum had waned as infection and death rates again began to rise, including in the US. Gross domestic product declined by 3.6% in 2020 (2019: +2.2%).

Japan: The Japanese economy suffered a severe economic slump in 2020 despite the COVID-19 crisis having far less of an impact there than it did in other countries. Gross domestic product in Japan declined by 5.2% (2019: +0.7%). Strong recovery towards the end of the year was not possible on account of a new wave of infection in the fourth quarter of 2020 in the country and in key sales regions.

Sector Development

While the PVA TePla Group again saw positive development in the semiconductor markets of particular relevance to the Group in fiscal 2020, investment in the markets for high-temperature systems was restrained.

- In respect to global semiconductor sales, the Semiconductor Industry Association (SIA) states that after shrinking by 12% in 2019, they picked up again in 2020 and came to a total of USD 439.0 billion, a 6.5% rise on 2019. At the start of 2020, it was suspected that COVID-19 would negatively affect all end device markets. Automotive, industry and some areas of the consumer market were in fact hit hard by lower company and consumer spending. By contrast, other areas such as equipment for working from home and e-learning soared, benefiting from the pandemic.

- Sentiment in many industry sectors of European manufacturing, including mechanical engineering, continued to brighten in December 2020. The automotive industry, however, especially in Germany and France, suffered substantial setbacks in production expectations.
- Only in China the situation has returned to pre-crisis levels. China appears to have boosted production by between 4% and 5% in real terms in 2020. By contrast, mechanical engineering in the US, Japan and Germany is expected to have ended 2020 down 10% or more on the previous year.
- All in all, global industrial production was about 5% lower than in the previous year in the first 10 months of 2020. Advanced economies saw figures fall by 7%, with a lower decline of 3% in emerging markets.

Key Developments in Fiscal 2020

PVA TePla AG acquired a producer of ultrasound measuring equipment, the US company OKOS Solutions, LLC, in November 2020. OKOS develops and builds measuring equipment for the quality assessment of high-tech materials in industrial applications, such as aviation and aerospace, and for the semiconductor market. By acquiring this company, the PVA TePla Group is substantially improving its access to the US market for the ultrasound equipment business unit. A further common area of growth for PVA TePla Analytical Systems – previously solely responsible for developing and selling ultrasound measuring equipment at the PVA TePla Group – and OKOS is Asia, where the two companies will be bundling their activities.

In addition, in November 2020 the PVA TePla Group entered into a cooperation agreement with the mid-sized high-tech company MPA Industrie SA in France to continue the strategic development of the attractive technology field of silicon carbide (SiC). This collaboration was strengthened by a 5% investment, which was increased by an additional 5% at the start of 2021.

This relates to the production of SiC structural components for applications in, for example, the semiconductor industry, fiber-reinforced ceramics in the aviation and aerospace industry, among others, and SiC coatings for components used in renewable energies. This cooperation will further enhance our expertise in the process technology of SiC components and coatings, not to mention the global marketing of systems. The PVA TePla Group is thereby strengthening its position on growth markets.

The PVA TePla AG Management Board was expanded on January 1, 2021 to include Manfred Bender. He succeeds Alfred Schopf as CEO, who will leave PVA TePla AG at the Annual General Meeting in June 2021 following a transitional period.

General Statement on Business Development and the Group's Financial Position

The PVA TePla Group responded excellently to the challenges it faced in fiscal 2020, which was dominated by the COVID-19 pandemic. The global spread of COVID-19 led to the largest health crisis and the most severe recession since the Second World War and affected some of PVA TePla clients' customer markets. The health and safety of our employees and business partners around the world has always been and remains our top priority. Another central goal during the crisis was ensuring business continuity, wherever this could be done responsibly, and safeguarding the PVA TePla Group's strong financing standing. While the pandemic affected our markets differently, the PVA TePla Group remained a reliable partner for its customers and suppliers. The pandemic bolstered activities in the digital economy, underscoring the need for digitalization and the development of an industrial Internet of Things. The PVA TePla Group's core skills – its wide range of product groups such as crystal growing, metrology systems for the semiconductor industry and systems for "advanced materials" – are essential to developing and building semiconductor parts, without which the advances made in digitalizing society and industry would be inconceivable.

Against the backdrop of the COVID-19 pandemic, the PVA TePla Group has enjoyed a very successful fiscal year 2020. Sales revenues (EUR 137.0 million) were slightly higher than in the previous year and expectations for 2020, with the operating result before interest, taxes, depreciation and amortization (EBITDA) outperforming these figures considerably (EUR 22.7 million). The pandemic led to some project delays, as customers were not always able to provide the relevant infrastructure to install the systems on time. No orders were canceled. There were no major delays in procurement. The purchase of a vessel manufacturer in 2019 has had an advantageous effect. This has resulted in greater independence from suppliers for a core element of our products. A high order backlog of EUR 125.0 million at the end of fiscal 2020 confirms the PVA TePla Group's sound financial position and will play a key role in sales revenues targets for the fiscal year 2021. The PVA TePla Group's market position, with its unique technologies, opens up further growth potential in the medium and long term.

In 2021, the PVA TePla AG Management Board expects the global economy to continue to recover from the COVID-19-induced recession in fiscal 2020. At the start of the 2021 fiscal year, it is very difficult to predict how the outbreak of the virus will continue (e.g. waves of new infections, lockdowns and potential variants), progress in medical treatment, the availability and take-up of vaccinations, potential repercussions resulting from weak demand or tensions on the financial market (increase in insolvencies). There is also a considerable degree of uncertainty regarding key political developments such as trade relations between the US and China and the longer-term impact of the 2020 US election.

Nevertheless, at the time of preparing the management report the PVA TePla AG Management Board was optimistic about the future. Thanks to its market position and current project discussions, the PVA TePla Group's economic situation is not expected to be at risk beyond the end of fiscal year 2021.

Comparison of Actual Development Against Business Development Anticipated in the 2019 Forecast Report

Forecast and Actual Development of PVA TePla AG

When the nine-month figures were published in November 2019, the PVA TePla Group expected sales revenue and earnings to continue their course of substantial growth in the following fiscal year 2020. This assessment was issued before the world became aware of the pandemic. At the time of releasing financial figures for 2019 in March 2020, when the severity of the COVID-19 pandemic was becoming apparent, a serious estimate of the total financial impact of the pandemic on the PVA TePla Group for fiscal 2020 was not considered possible. Sales revenues and earnings at the PVA TePla Group were expected to be at the previous year's level or lower in the 2020 fiscal year. The half-year figures published in August 2020 then provided a more precise outlook for earnings figures, according to which earnings should at least match the level of the previous year provided that there are no further adverse effects from COVID-19, even if sales revenue declines. In November 2020, when financial figures were published for the third quarter, the outlook for the 2020 fiscal year put consolidated sales revenues in the region of 130 EUR million and the operating result (EBITDA) at EUR 17 million.

The PVA Group thus well outperformed the forecast with consolidated sales revenues of EUR 137.0 million and EBITDA of EUR 22.7 million, equivalent to an EBITDA margin of 16.6%. Some high-margin orders were processed early in the fourth quarter of 2020. Risks already incorporated in costs still did not materialize.

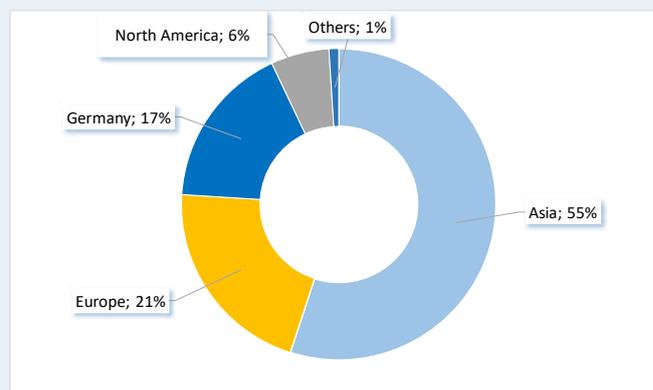
3.2. Group's Results of Operations: Sales Revenues

Regional Revenues

The PVA TePla Group generated consolidated sales revenues of EUR 137.0 million in fiscal 2020 (previous year: EUR 131.0 million), again putting the figure up 5% on the previous year. The share of revenues generated for the Asian market rose to 55% due to successfully processing a major order in the semiconductor segment (previous year: 33%).

The German market accounted for 17% (previous year: 40%) of total sales revenues. A total of 21% (previous year: 16%) of consolidated sales revenues were generated in other European countries, with a further 6% (previous year: 10%) in North America. Other regions contributed less than 1% (previous year: 1%) to consolidated sales revenues.

Consolidated Sales Revenues by Region in Percent

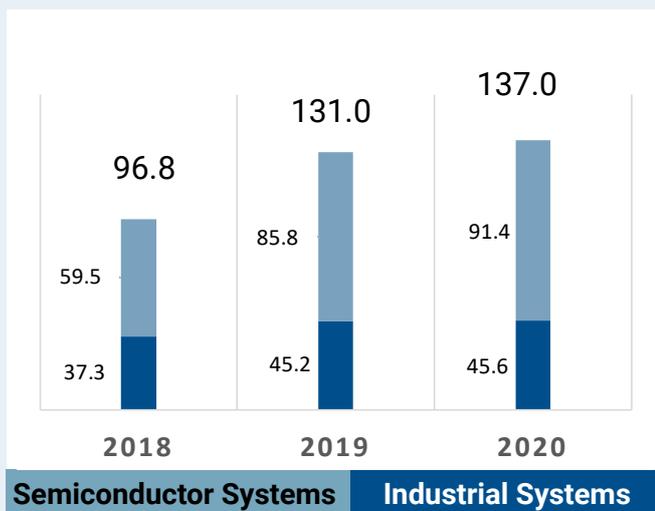


Changes in Segment Revenue

Sales revenues in the **Semiconductor Systems division** rose to EUR 91.4 million in 2020 (previous year: EUR 85.8 million), an additional upturn of 7%. Key growth drivers remained sales revenues with crystal-growing systems for the semiconductor wafer industry and metrology systems. All told, the Semiconductor Systems division accounted for 67% of the PVA TePla Group's total sales revenues.

The **Industrial Systems division** generated segment sales revenues of EUR 45.6 million, in line with the previous year (previous year: EUR 45.2 million). 33% of total consolidated sales revenue was achieved in the Industrial Systems division (previous year: 35%). Brazing systems for the electrical industry accounted for the lion's share of system sales revenues. The remaining sales revenues were distributed across the remaining product portfolio, e.g. systems for vacuum hard metal sintering, systems for cleaning graphite, and plasma nitriding systems used to harden steel surfaces.

Consolidated Sales Revenues by Division in EUR million



Orders

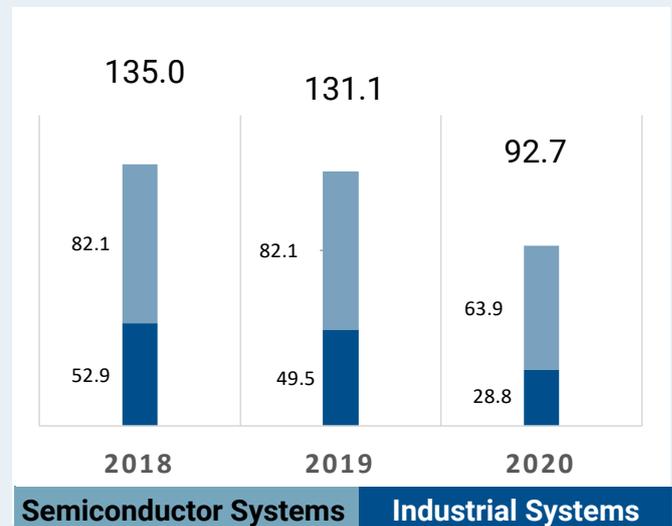
The pandemic considerably curbed sales activities on account of restricted access to customer sites. In geographical terms, China was the first country to be significantly affected by COVID-19, as well as the first major economy to see a return to growth towards the end of the fiscal year. By contrast, COVID-19 is continuing to take a hefty toll on large swathes of Europe and America, following a temporary recovery from the first spring wave in the summer months. All of these market developments had a perceptible impact on incoming orders.

New orders in the 2020 fiscal year were booked at EUR 92.7 million (previous year: EUR 131.1 million). The book-to-bill ratio was 0.7 (previous year: 1.0). The book-to-bill ratio shows the ratio of incoming orders to sales revenues in a given period. A book-to-bill ratio above 1 indicates that incoming orders are higher than sales revenues, meaning a future increase in sales revenues can be expected. If the book-to-bill ratio is below 1, it means a decline in sales revenues is to be expected in the future.

The **Semiconductor Systems division** generated incoming orders of EUR 63.9 million (previous year: EUR 81.6 million), thus accounting for about 69% of the Group's incoming orders. Metrology systems generated the highest growth of all business areas, as well as accounting for the largest share of incoming orders in percentage terms.

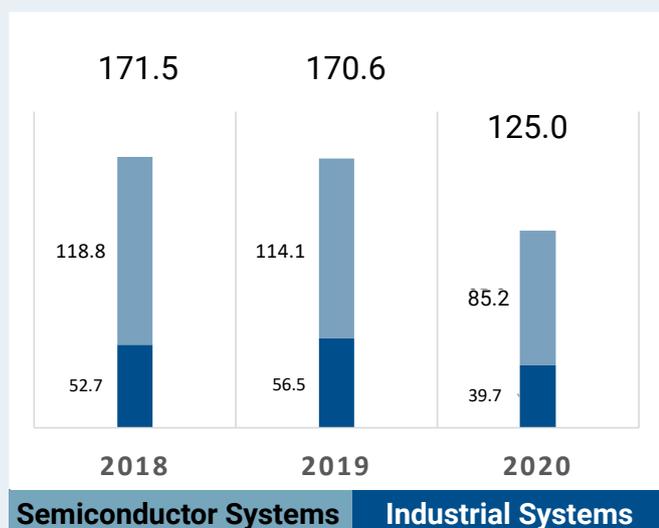
The **Industrial Systems division** generated incoming orders of EUR 28.8 million in fiscal 2020 (previous year: EUR 49.5 million), thus accounting for 31% of the Group's incoming orders. Most orders came from Germany. Brazing systems for the electrical industry accounted for the lion's share of incoming orders. Orders of these systems for the American electrical industry were also a positive sign, signaling that the company has now also been successful in entering the North American market.

Incoming Orders by Division in EUR million



The PVA TePla Group's order backlog remained at a good level of EUR 125.0 million in fiscal 2020 (previous year: EUR 170.6 million). As of December 31, 2020, the Semiconductor Systems division had an order backlog of EUR 85.2 million (previous year: EUR 114.1 million), with the figure for the Industrial Systems division coming to EUR 39.7 million (previous year: EUR 56.5 million).

Order Backlog by Division in EUR million



Earnings Performance

The PVA TePla Group ended fiscal 2020 with an outstanding fourth quarter, boosting earnings before interest, taxes, depreciation, and amortization (EBITDA) by a substantial 40% year on year to EUR 22.7 million (previous year: EUR 16.2 million). The forecast issued in November 2020 of an EBITDA target in the region of EUR 17 million was thus well exceeded. The EBITDA margin was 16.6% (previous year: 12.4%), also up significantly on the previous year. The company also boosted earnings before interest and taxes (EBIT), which climbed to EUR 18.5 million (previous year: EUR 12.3 million), representing an EBIT margin of 13.5% (previous year: 9.4%). At EUR 12.7 million consolidated profit after tax was also higher than the previous year (EUR 7.7 million). The return on sales after tax was 9.3% (previous year: 5.9%). The rise in consolidated sales revenues also had a positive effect on gross profit, which climbed considerably to EUR 43.2 million (previous year: EUR 37.7 million). The gross margin for operating systems business also improved further, coming to a total of 31.5% and thus outperforming the previous year figure (previous year: 28.8%). Selling and distributing expenses came to EUR 12.4 million in fiscal 2020, up slightly on the previous year's figure of EUR 12.1 million.

However, these grew at a slightly lower rate than sales revenues. The administrative cost ratio was stable at 6.5%, with administrative costs coming to EUR 8.9 million in absolute terms in 2020 (previous year: EUR 8.8 million). As planned, research and development activities were continued in fiscal year 2020 and came to EUR 4.6 million, in line with the previous year (EUR 4.8 million). The areas of crystal growing and metrology particularly benefited from investments in research and development. As of December 31, 2020, the net balance of other operating expenses and income was EUR +1.2 million (previous year: EUR +0.2 million). Other operating income of EUR 3.9 million (previous year: EUR 3.1 million) predominantly included income from exchange rate differences (EUR 1.6 million, previous year: EUR 0.7 million), income from grants in the context of R&D projects (EUR 0.8 million, previous year: EUR 1.0 million) and income from the release of impaired receivables (EUR 0.7 million, previous year: EUR 0.1 million). Other operating expenses in 2020 of EUR 2.7 million (previous year: EUR 2.8 million) were on par with the previous year and resulted primarily from expenses from exchange rate differences (EUR 1.9 million; previous year: EUR 0.9 million) and the write-down on current and non-current trade receivables (EUR 0.1 million; previous year: EUR 0.8 million).

In the **Semiconductor Systems division**, EBIT increased to EUR 16.3 million (previous year: EUR 12.7 million). The **Industrial Systems division** also reported an increase to EUR 6.7 million (previous year: EUR 3.5 million). „Holding costs“ amounted to EUR 4.5 million (previous year: EUR 3.9 million).

The net balance of interest income and interest expenses was EUR -0.7 million (previous year: EUR -0.5 million). As in the previous year, this included EUR -0.2 million (previous year: EUR -0.3 million) due to discounting pension provisions and EUR -0.4 million (previous year: EUR -0.2 million) for interest payments and fees in connection with short and long-term credit financing.

Earnings before taxes (EBT) amounted to EUR 17.8 million (previous year: EUR 11.8 million) and consolidated net income to EUR 12.7 million (previous year: EUR 7.7 million).

Income tax expense, which totaled EUR 5.1 million (previous year: EUR 4.1 million), comprised current tax expenses/tax refunds of EUR -3.3 million (previous year: EUR -1.9 million) and deferred tax expense of EUR -1.8 million (previous year: EUR -2.2 million).

3.3. Net Assets and Financial Position of the PVA TePla Group

Principles and Objectives of Financial Management at the PVA TePla Group

Financial management at the PVA TePla Group refers primarily to liquidity and capital structure management and the management of interest rates and currencies. The objective of the PVA TePla Group's financial management is to maintain the company's financial independence by ensuring sufficient liquidity. This aims to ensure the Group's financial strength remains high at all times. Risks are to be avoided as far as possible or effectively hedged. Financial and liquidity risks are described in section "4. Report on opportunities and risks". The PVA TePla Group does not engage in any speculative forward transactions and uses derivative financial instruments only where necessary.

Financing and Significant Financing Measures

In order to secure solid financing for future organic and inorganic growth, the PVA TePla Group signed a syndicated loan agreement in November 2020 for a mixed line of EUR 20.0 million (cash and guarantee line), EUR 80.0 million in guarantee lines and EUR 20.0 million in acquisition lines, as well as an option for further guarantee lines by up to EUR 40.0 million, cash lines by up to EUR 20.0 million and acquisition lines by up to EUR 20.0 million with a term of 60 months, renewable for another 24 months („Asset position“ and „Financial position“ sections). Further financing facilities of EUR 1.3 million are available as working capital financing. Government loans (COVID-19 assistance) of EUR 0.5 million were also utilized in the US. No final decision on the destination of this assistance in the corresponding organizational units has yet been made.

Asset Position

The PVA TePla Group's total assets decreased to EUR 177.2 million as of December 31, 2020 (previous year: EUR 180.9 million).

As of December 31, 2020, non-current assets were down on the previous year at EUR 47.3 million (previous year: EUR 52.0 million). At EUR 11.1 million, intangible assets were similar to the previous year's figure of EUR 11.5 million. Goodwill included in intangible assets is tested for impairment at least once per year. Right-of-use assets in connection with accounting under IFRS 16 rose slightly year on year to EUR 2.7 million (previous year: EUR 2.2 million).

Property, plant and equipment were similar to the previous year at EUR 28.6 million (previous year: EUR 30.2 million). Non-current financial assets (EUR 0.4 million; previous year: EUR 3.0 million) essentially include the 5% stake in MPA Industrie SA acquired in fiscal 2020. In the previous year, these included cash investments with a term of more than one year. Deferred tax assets came to EUR 4.5 million (previous year: EUR 5.1 million).

Investments in fiscal 2020 were offset by EUR 4.2 million in write-downs (previous year: EUR 3.9 million), EUR 0.8 million of which (previous year: EUR 0.7 million) relate to the capitalization of right-of-use assets.

Current assets totaled EUR 130.0 million as of December 31, 2020 (previous year: EUR 129.0 million), slightly higher than in the previous year. At EUR 67.6 million (previous year: EUR 65.2 million), inventories remain high as a result of major orders being processed. Trade receivables and other assets decreased from EUR 27.4 million (previous year) to EUR 24.8 million as of December 31, 2020. Contract assets reduced to EUR 7.7 million (previous year: EUR 10.5 million). Cash and cash equivalents increased to EUR 29.7 million as of December 31, 2020 (previous year: EUR 25.6 million).

Financial Position

As of December 31, 2020, non-current liabilities were on par with the previous year at EUR 23.2 million (previous year: EUR 23.4 million). Pension provisions totaled EUR 17.3 million (previous year: EUR 17.2 million). Non-current financial liabilities came to EUR 1.7 million (previous year: EUR 3.2 million) and, as of December 31, 2020, resulted exclusively from commitments from leases. The decline reflects EUR 1.7 million in early repayments of non-current financial liabilities. Deferred tax liabilities rose to EUR 3.9 million (previous year: EUR 2.8 million). This rise is due mainly to differences when applying accounting principles under IFRS 15.

Current liabilities decreased to EUR 84.7 million (previous year: EUR 100.2 million) as of December 31, 2020. At the end of fiscal year 2020, other current provisions came to EUR 3.6 million (previous year: EUR 3.6 million). In particular, these include provisions for warranties. Current financial liabilities came to EUR 1.3 million (previous year: EUR 1.3 million) as of December 31, 2020. Obligations to employees increased to EUR 4.8 million (previous year: EUR 4.1 million), chiefly in connection with higher earnings-related bonuses. Trade payables declined to EUR 8.0 million (previous year: EUR 10.8 million). As of December 31, 2020, at EUR 62.9 million contract liabilities were down on the previous year figure of EUR 78.6 million.

EUR 25.3 million (previous year: EUR 49.7 million) of the guaranteed lines had been utilized as of the reporting date December 31, 2020. Based on the comprehensive consolidated result of EUR 12.7 million (previous year: EUR 6.6 million), equity increased significantly to EUR 69.3 million (previous year: EUR 57.3 million). The equity ratio increased to 39.1% at the end of the 2020 fiscal year (previous year: 31.7%).

Liquidity

In fiscal year 2020, cash flow from operating activities increased to EUR +8.1 million as a result of collecting customer payments (previous year: EUR -0.6 million). Cash flow from operating activities fluctuates strongly from one reporting date to the next in the Vacuum Systems and Crystal Growing Systems business units due to the project structure of orders and methods of payment. Considerable advance payments are paid at the beginning of a project, which positively influence the net cash flow in case of large orders. Cash flow is negative during order processing, whereas close to the delivery date, the remaining amount due is paid, except for a small residual installment.

As a result of cash investments with a remaining term of more than three months (EUR 4.0 million) to reduce negative interest rates and collecting these (EUR +6.0 million), investments in intangible assets and property, plant and equipment (EUR -0.7 million), the business acquisition of a US metrology company and the investment in a French plant manufacturer (EUR -0.8 million), cash flow from investing activities totaled EUR +0.6 million (previous year: EUR -12.5 million). Cash flow from financing activities amounted to EUR -4.3 million (previous year: EUR -1.4 million) and included both scheduled and unscheduled repayments of non-current and current loans of EUR -3.2 million (previous year: EUR -0.7 million) and reductions of leasing liabilities totaling EUR -0.8 million (previous year: EUR 0.7 million). Interest payments totaled EUR -0.3 million (previous year: EUR -0.1 million).

The EUR 4.1 million rise in cash to EUR 29.7 million (including exchange rate changes), as well as unutilized credit lines of EUR 41.3 million, meant that the PVA TePla Group had available liquid funds of EUR 71.0 million at its disposal as of the 2020 reporting date. As of December 31, 2020, the PVA TePla Group reported a positive net financial position (balance of cash and cash equivalents and current and non-current financial liabilities) of EUR 26.8 million (previous year: EUR 21.0 million).

3.4. Net Assets, Financial Position and Results of Operations of the PVA TePla AG

In contrast to the consolidated financial statements, which are based on the IASB's IFRS standards as adopted by the EU, the annual financial statements of PVA TePla AG are prepared in line with the principles of the German Generally Accepted Accounting Principles in accordance with the provisions of Sections 242 to 256a and Sections 264 to 288 HGB and the special provisions of the German Stock Corporation Act (AktG). As PVA TePla AG generates most of its income from profit transfer agreements with the subsidiaries, the business performance described in the annual financial statements of PVA TePla AG is very similar to that shown in the PVA TePla Group's consolidated financial statements.

Results of Operations

PVA TePla AG generated sales revenues of EUR 9.7 million in fiscal 2020 (previous year: EUR 10.8 million), chiefly from allocating charges to subsidiaries in Germany and abroad. The cost of materials amounted to EUR 1.0 million in the first half of 2020 (previous year: EUR 0.5 million). Personnel expenses increased to EUR 5.5 million (previous year: EUR 4.6 million). In 2020, write-downs of EUR 1.0 million were on par with the previous year (previous year: EUR 1.0 million). Other operating income came to EUR 1.1 million (previous year: EUR 0.6 million) and in 2020 could essentially be attributed to exchange rate gains (EUR 1.0 million). Other operating expenses totaled EUR 6.8 million in fiscal year 2020 (previous year: EUR 5.7 million). These chiefly comprise management costs for real estate, costs of IT infrastructure and consulting expenses. This expenses item also includes exchange rate losses of EUR 1.2 million. Income from profit transfer agreements with subsidiaries totaled EUR 16.0 million in fiscal 2020 (previous year: EUR 12.3 million). As in the previous year, there were no expenses from profit and loss transfer agreements with subsidiaries. Interest expenses amounted to EUR 0.5 million (previous year: EUR 0.6 million). Interest income came to EUR 0.6 million (previous year: EUR 0.2 million).

Income taxes were EUR -2.9 million (previous year: EUR -1.8 million). Overall, PVA TePla AG generated earnings after taxes of EUR 10.8 million (previous year: EUR 10.1 million) and an annual result of EUR 10.7 million (previous year: EUR 9.9 million).

PVA TePla AG's order backlog came to EUR 7.3 million at the end of fiscal year 2020 (previous year: EUR 7.3 million).

Asset Position

PVA TePla AG's total assets increased to EUR 108.1 million as of December 31, 2020, up on the previous year's figure of EUR 97.9 million. Fixed assets totaled EUR 35.8 million at the end of fiscal year 2020 (previous year: EUR 35.9 million). Property, plant and equipment declined slightly from EUR 17.9 million to EUR 17.1 million as of December 31, 2020, essentially due to depreciation. Financial assets increased to EUR 18.2 million, mainly as a result of establishing PVA Holding, LLC in Delaware, USA (previous year: EUR 17.6 million). Total inventories, before being offset against advance payments, increased to EUR 3.3 million as of December 31, 2020 (previous year: EUR 2.3 million). Trade receivables were collected in full in comparison to the previous year figure (previous year: EUR 2.4 million). Receivables from dependent companies increased from EUR 30.0 million (previous year) to EUR 46.7 million as of December 31, 2020. Other assets declined from EUR 2.2 million to EUR 1.1 million. Cash and cash equivalents saw a slight decrease to EUR 23.0 million in connection with existing cash pool contracts (previous year: EUR 26.3 million).

Financial Position

Liabilities totaled EUR 35.0 million, similar to the previous year's figure of EUR 35.9 million. This change was attributable mainly to the rise in liabilities to dependent companies. Financial liabilities were reduced ahead of schedule and amounted to EUR 0.2 million as of December 31, 2020 (previous year: EUR 2.3 million). Pension obligations rose from EUR 7.9 million in the previous year to EUR 8.1 million.

The only pension obligations recognized are those to former employees who reached the retirement age by December 31, 2014. New pension commitments are not granted. Other provisions decreased to EUR 2.5 million as of December 31, 2020 (previous year: EUR 3.1 million). This stemmed predominantly from the decline in payment obligations from the acquisition of a subsidiary. PVA TePla AG's equity increased to EUR 61.2 million as of December 31, 2020 (previous year: EUR 50.5 million). This puts the equity ratio at 56.6% (previous year: 51.5%). Retained earnings came to EUR 37.2 million (previous year: EUR 26.5 million). The PVA TePla Group's investments totaled EUR 1.1 million in fiscal year 2020 (previous year: EUR 0.4 million).

Profit Appropriation

The separate financial statements of PVA TePla AG (according to commercial law regulations) as of December 31, 2020 report a net profit of EUR 10.7 million (previous year: EUR 9.9 million) and retained earnings of EUR 37.2 million (previous year: EUR 26.5 million). The Management Board and Supervisory Board propose that the retained earnings reported in the 2020 annual financial statements be carried forward to a new account at the same amount. No dividends are to be distributed for fiscal 2020. There were no withdrawals from the share premium or retained earnings.

Overall Assessment of Net Assets, Financial Position and Results of Operations

The PVA TePla AG Management Board believes that the economic uncertainty and potential lack of demand and production losses caused by the outbreak of COVID-19 may continue to take a toll on global growth in fiscal 2021. Nevertheless, the Management Board is optimistic about the future and does not consider the economic situation of PVA TePla AG to be at risk beyond the end of fiscal year 2021 at the time of preparation of the management report.

4. REPORT ON RISKS AND OPPORTUNITIES

The PVA TePla Group's policy on risks and opportunities reflects the Group's commitment to achieving sustainable growth and increasing shareholder value while simultaneously managing appropriate risks and opportunities and avoiding inappropriate risks. Risk management is an integral part of planning and implementing the business strategy.

The divisions of the PVA TePla Group are exposed to an array of risks that are inextricably linked to corporate activities. Risk is understood to be the possibility of the PVA TePla Group's events or activities jeopardizing the ability of the Group or one of its divisions to reach its targets. At the same time, it is also important for the PVA TePla Group to identify opportunities for the company, take advantage of these opportunities and reinforce the Group's competitive position. Risks and opportunities are not offset against one another. The main risks and opportunities are described below.

Risk and Opportunity Strategy

The risk and opportunity strategy is embedded in the corporate strategy and is designed to secure the continuation of the company as a going concern and guarantee its further development. The resulting strategy assesses the risks and opportunities of business activities. In the core activities of the company/the Group, we make a conscious decision to enter into limited and containable risks, if they make appropriate compensation likely or are inevitable. In some cases, we allocate the risks to other parties. This mainly includes concluding suitable insurance policies. This process is conducted in close cooperation with an experienced and specialized insurance broker. It is regularly reviewed for efficiency and optimized where necessary.

Other risks that are not linked to core or support processes, on the other hand, are avoided where possible. To ensure this, managing directors and employees have access to a “risk manual” that sets out procedures for proper, forward-looking risk management. The manual covers specific risk management processes. It is aimed at all risk-related activities and measures, i.e. identifying, measuring, managing, reporting and monitoring risks. As part of this, risks facing the divisions, the operating units and central areas are identified using defined risk categories and assessed in terms of how likely they are to occur and their potential damage.

Risk and Opportunity Management

The scope of risk management includes the same companies as those included in the PVA TePla Group. Due to the organizational structure, risk management is carried out locally in the PVA TePla AG, in the subsidiaries and business processes. The Management Board members and Managing Directors are therefore responsible for central processes of the risk management system. The early recognition of risks is a key element of the risk management system and is intended to regularly provide Management Board members with up to date information on the current risk situation within the PVA TePla Group. The duties of those in charge include developing and, where necessary, installing measures to prevent, mitigate and hedge against risks. Those responsible regularly monitor the main risks and the countermeasures implemented. The risk reports are regularly compiled and analyzed by central risk management and checked and discussed by the Management Board and Supervisory Board. In addition to regular reporting, a reporting system has been installed within the Group to immediately report the occurrence of unexpected risks. Public reporting is done on a quarterly basis, but the ad-hoc reports can also be used in addition to the regular reporting process if necessary to address relevant topics in a timely manner.

The risk management system also includes an annual risk inventory, in which all of the risks relevant to the PVA TePla Group are reported and their relevance and possible effects are assessed. Measures to reduce identified risks are defined and their implementation is monitored. The risk management system which also includes the compliance management system enables the Management Board to identify material risks at an early stage and to implement countermeasures. The key features of the risk management system described above are applied throughout the Group. As far as processes in financial disclosure are concerned, this means that identified risks are reviewed and assessed, particularly for their potential impact on disclosures in the respective financial re-ports. The idea is to provide important information at an early stage about potential changes in the fair value of assets and liabilities, possible impairments and important information to assess the necessity of forming and reversing provisions. The adequacy and efficiency of the risk management system is reviewed on a regular basis at Management Board level and adjusted where necessary. The Management Board and the Supervisory Board regularly determine the areas where the PVA TePla Group is to be subject to an internal audit. Where necessary, external companies are engaged for these audits.

Opportunity management is also an integral part of Group management. The strategy process identifies and assesses the individual areas for opportunity. Just like risks, opportunities are reported and managed locally. Frequent reporting is carried out in order to identify at an early stage whether the market or the competition has developed in such a way or whether there have been occurrences within the Group that make reassessment necessary. As for risks, public reporting for opportunity management is also done on a quarterly basis, but the ad-hoc reports can also be used in addition to the regular reporting process if necessary to make relevant topics public in a timely manner.

Accounting-Related Internal Control and Risk Management System

The objective of the methods and measures in place is to secure the assets of the company and enhance operating efficiency. The internal control system that has been implemented is intended to ensure the reliability of accounting and reporting and to ensure compliance with internal rules as well as legal regulations and the Articles of Association. The adequate separation of functions is ensured and appropriate spans of control have been implemented. Furthermore, it is ensured that responsibilities do not overlap and that tasks, expertise and responsibilities are pooled. Controls have also been integrated into the workflows. Key components of these structures and controls include strict compliance with the system of checks and balances for all essential accounting processes, effective and precisely defined access rights for IT systems, spot checks of employees at all levels by the respective superior, and control over the structural and process organization including the key operational company processes within the scope of the certified quality management system. The essential features of the internal control system described above apply to all functional areas. In the accounting process, the implementation of the structural and process organization controls within the internal control system assures data integrity for the information that flows into financial reporting.

In addition to these controls implemented in the organization, the individual functional areas are also monitored by superiors and, if applicable, the internal audit department. In this case, the internal audit department is responsible for reviewing the functioning and effectiveness of the internal control system. In order to conduct the audit, the internal audit department has comprehensive information and review rights.

Consolidation and the Group accounting process are based on the decentralized preparation of financial statements by each of the Group companies. These financial statements are prepared and submitted according to uniform Group-wide standards and data formats. The central accounting system is connected with the ERP system through numerous interfaces.

The entire process is controlled and verified by the central Group Accounting and Controlling department. Here, the data is also verified with regard to form and content. All of the employees involved in the process receive training at regular intervals. The parts of the internal control system relevant to financial reporting are reviewed in terms of effectiveness by the auditor as part of a risk-oriented approach.

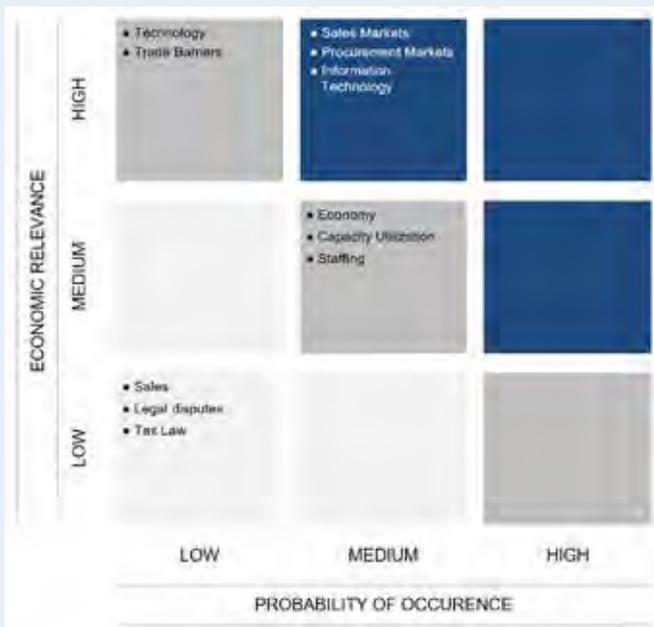
In conclusion, we would like to point out that neither an ICS nor a risk management system can ensure with absolute certainty that the related objectives will be achieved. Like all discretionary decisions, resolutions to implement suitable systems can also be incorrect in principle. Controls may not be adequate on a case by case basis due to simple errors or mistakes, or changes to environment variables may be recognized too late in spite of corresponding monitoring.

Risk Reporting on the Use of Financial Instruments

Risks from financial instruments are described in detail in the Group notes under Note 19 „Additional Disclosures on Financial Instruments“.

Risk Assessment

Risks are assessed on the basis of probability of occurrence and the potential scale of the risk (economic relevance), in each case as either „low“, „medium“ or „high“.



Risks and Opportunities of Future Operating Activities

The PVA TePla Group differentiates between business opportunities and risks, operational opportunities and risks, and financial opportunities and risks. These constitute the pivotal areas for the Group. Opportunities and risks do not exist to the same extent in all subsegments. The following generally provides a net presentation of risks (by measures).

BUSINESS OPPORTUNITIES AND RISKS

Sales Markets

COVID-19 pandemic (COVID-19): The spread of COVID-19 has accelerated since fall 2020 and the number of new cases is surging in many countries. Governments and local authorities are attempting to contain the spread of the virus by taking various countermeasures, which extend to large-scale lockdowns and opening restrictions for certain sectors of the economy.

The extent and duration of individual effects on our business are difficult to predict and lie beyond our control. If, for example, containment measures are introduced at short notice or persist for an unexpectedly long amount of time, this can have a major negative effect on the PVA TePla Group's business. These may result in unexpected closures of sites, manufacturing facilities or office buildings of suppliers, customers or companies of the PVA TePla Group, which would seriously hurt the Group's ability to produce and supply products and services. The greatest uncertainties relating to the COVID-19 crisis include its duration, for example in connection with potential new waves or variants of the virus. The impact has been clearly felt on operating business since the second quarter of fiscal year 2020, for example as projects were postponed by customers. Customers did not cancel or fundamentally postpone investments. Potential repercussions of the COVID-19 pandemic include an unchecked rise in public and private debt levels that hamper recovery following the crisis, serious disruptions to the financial system and insolvencies at PVA TePla Group customers and suppliers. In the long term, dialing back globalization runs the risk of reducing potential future growth. At Group level, a working group was set up at PVA TePla AG to carefully monitor and mitigate the various effects of COVID-19, with a focus on employee health and safety. This working group coordinates general decisions and the flow of information, which is then managed by the various subsidiaries. At the same time, the management responsible at the individual subsidiaries and in different countries is in charge of taking suitable measures in line with individual circumstances.

Economic, political and geopolitical conditions: The PVA TePla Group believes it is facing considerable uncertainties in terms of global economic prospects. A renewed flare-up of COVID-19 combined with a prolonged lock-down in the PVA TePla Group's key countries would halt the global economic recovery that is gradually beginning to set in, potentially triggering a deep recession. Furthermore, major trouble spots unrelated to COVID-19 have failed to ease and in some cases have even deteriorated. An escalation of the US-China trade conflict into a full-scale global trade war or even geopolitical conflict would considerably worsen global growth prospects. Increasing trade barriers could negatively impact our sales markets.

A loss of economic confidence or a longer phase of investment restraint could strain the PVA TePla Group's business. Further risks arise as a consequence of geopolitical tensions in the Middle East, Hong Kong and Taiwan, relations between the European Union and Russia and incidents of political upheaval. The PVA TePla Group is dependent on the economic performance of certain sectors, such as the semiconductor industry. Another business risk could result from an abrupt slow-down in Chinese economic growth and the weak government investment that this would entail. A major terrorist attack, case of cybercrime or a spate of such attacks or incidents in major economies could hamper global economic activity. Furthermore, the highly interconnected global economy is vulnerable to natural disasters and further pandemics.

In general, the fact that business with crystal growing systems for the semiconductor industry tends to have a long cycle and thus features long-term contracts results in a time lag between changes in macroeconomic conditions and the impact of these on the PVA TePla Group's sales revenues and earnings. If growth in certain markets grinds to a halt again and production and cost structures are not successfully adjusted to take account of the new market environment, it cannot be guaranteed that this will not have a negative impact. For example, financing options for our customers could deteriorate. The PVA TePla Group's global business position and its extensive product range that follows different business cycles help offset the consequences of adverse developments on individual markets. This poses risks to the PVA TePla Group not only in terms of sales performance at product level but also in terms of substantial disruption to production, the procurement market and supply chains.

Key markets for the PVA TePla Group: The semiconductor business, a key sector for the **Semiconductor Systems division**, is traditionally highly cyclical in nature. Although the semiconductor industry has enjoyed average annual growth rates well above those of most established industries in recent decades, this average includes periods of both robust growth and recession. Investments in new silicon wafer capacity, an essential market for the PVA TePla Group, were, in particular, subject to increasing fluctuation.

Investments are being made in process technologies. These include systems for growing high-purity silicon crystals or silicon carbide crystals for high performance electronics – particularly in e-mobility – or metrology systems for nondestructive quality control in LED or MEMS production. Continuing advances in the digitalization of the company mean that increasing capacity is required to produce semiconductor material. The ongoing reduction of structure widths in chip production will also boost demand for metrology systems for examining chip quality. Major wafer and chip manufacturers have stepped up investments considerably since 2017. The expansion of our own wafer production for the semiconductor industry in China represents a major growth opportunity for the PVA Group. This potential has already been underscored by orders in previous years. Silicon carbide for high-performance electronics is vital for a multitude of industries, including the automotive industry and renewable energies. The PVA TePla Group's systems technologies will bring about major sales opportunities in numerous regions in the years ahead.

Demand for plasma and metrology systems is correlated with trends in sales markets in the semiconductor industry (e.g. MEMS, LED, OLED/PLED, IGBT). Further growth for these products of the PVA TePla Group is expected due to the anticipated growth in the semiconductor market in the medium term and new applications for plasma systems in the semiconductor/life science/industrial sectors. The semiconductor market will see stronger growth in the medium term, driven by the acceleration in connectivity of billions of devices in industry and the private sector (i.e. „Internet of Things and Industry 4.0“).

In the **Industrial Systems division**, business focuses on "advanced materials". These include high-tech materials produced in high-temperature vacuum systems by way of joining technologies and hard metals produced in sintering systems. Silicon carbide ceramics and silicon carbide coatings are further examples of where processing requires systems from the PVA TePla product portfolio. The introduction of new technologies leading to the substitution of existing materials could have a lasting effect on demand for vacuum systems.

A decline in demand, for example in the automotive, electrical, semiconductor or aviation industries, could also negatively affect incoming orders for vacuum systems. In markets such as the tool industry and the electronics industry, the PVA TePla Group provides process technologies that will remain a firm part of each respective value chain in the future. In joining technology, new user markets are being developed in the „diffusion bonding“ application. Examples of areas in which these types of processes are used include the aviation industry and molding construction. The semiconductor industry, in particular, is taking on increasing importance in this division. Special crystal growing processes and the “diffusion bonding” application described above are being used by more and more leading semiconductor manufacturers as they make it possible to implement increasingly strict design rules when manufacturing chips. New regional markets, such as North America, in which products from this business area had previously been little represented, have been increasingly developed in recent quarters.

Economy

In its “Global Economic Prospects” report published in January 2021, the World Bank estimated that, after the devastating health and economic crisis caused by COVID-19, the global economy will put one of its worst ever recessions behind it in 2021 and begin the process of gradual recovery. Investment is expected to pick up again in 2021, but despite the upswing in digital technology, this will not be enough to reverse the sharp decline in investment seen in 2020.

Following the collapse last year brought about by the COVID-19 pandemic, gross domestic product (GDP) growth of 4% is anticipated for 2021, although this is still more than 5% lower than prepandemic forecasts. Global trade is expected to see growth of 5.1% in 2021. COVID-19 caused national debt to skyrocket in many countries as a result of the global recession and the economic policy response to this. Even before the pandemic, the rapid rise in countries’ debt had raised concerns over debt sustainability and the possibility of a financial crisis. The pandemic has exacerbated this.

The PVA TePla AG Management Board believes that maintaining or expanding measures to contain the COVID-19 pandemic over a longer period of time, meaning that Chinese and global economic growth does not continue to pick up as forecast, represents a significant macroeconomic risk. Global economic uncertainty will likely be very high in fiscal year 2021 and the lack of demand and production losses caused by the outbreak of COVID-19 could continue to weigh heavily on global growth. On the other hand, however, the Management Board also believes that the semiconductor market is so vital for markets – in particular for China – that any risks that may occur as a result of economic developments will be absorbed and investment will continue unimpeded.

These market and economic risks are reduced by diversifying the range of products and services across different sectors including semiconductors, photovoltaic, tool making and hard metal technology, the production of high-quality metals and ceramics, the automotive and aircraft industries, and the electrical and electronic engineering sectors. The effects of cyclical, foreseeable fluctuations in market volume are primarily offset by increasing or decreasing out-sourcing levels, although unexpectedly high demand could give rise to production bottlenecks. The strategy of maintaining a relatively low level of vertical integration allows rapid response and high flexibility. The PVA TePla Group also provides high-quality contract processing work such as plasma treatment, high-vacuum brazing, diffusion bonding and heat treatment of components in which greater customer demand has historically been seen in times of generally restrained capital expenditure.

Economic opportunities constitute developments that could cause the growth set out in the forecast report to be exceeded, for example the de-escalation of political conflicts or an unexpectedly quick resolution to trade disputes that result in lower market turbulence than that expected and described above.

Technology

The risk of losing orders due to a new, unexpected technology appearing on the market (horizontal entry) or due to new competitors is monitored and assessed worldwide. To do this, the latest research and technology trends and published studies are constantly observed and close contact is maintained with key customers and research institutes. In addition to ongoing development activities, technological product optimization is guaranteed through in-house development centers and by operating in-house service centers in which materials are processed for customers. Here, the company's development departments stay abreast of the latest material quality requirements of customers. The technical complexity of our products and rapid technological advances pose research and development-related risks.

Medium and long-term success is dependent on developing marketable products and generating sufficient revenues within appropriate time frames in order to provide adequate cash flow for the PVA TePla Group's internal financing. The technical complexity of our products and the high standards demanded by our customers may also give rise to risks that can generate increased warranty-related expenditures. Projects with particular and unusual technological challenges could entail handling risks. These risks are countered by the introduction of continuous project controlling. If, after thorough consideration of the risks and opportunities, a project does not meet the required risk profile, it may also be canceled.

As a supplier of technologies for the production and processing of materials, parts and components for high-tech industries, where vacuum and high temperature play a key role for production, new areas of application for materials produced using our systems may result in additional demand. New materials requirements may also be introduced that require a new type of system in the PVA TePla Group's specialist fields. The semiconductor market, with its increasingly strict design rules, sets increasingly high standards in terms of the purity and complexity of components. Here, the PVA TePla Group systems play a key role in meeting customers' needs. In view of climate change, energy savings to slow down the pace of global warming are a priority.

New materials which lead to a considerably longer service life of devices and structures contribute to energy savings to a particular extent. New materials for lightweight construction also improve energy efficiency. This could significantly improve the opportunities for the PVA TePla Group's process and systems technologies to develop and produce these materials around the world.

Trade Barriers

As an international Group with a high share of export business, the PVA TePla Group is essentially susceptible to trade barriers or sanctions. Geopolitical developments mean that there is still a trend towards intensification in both of these areas. This relates to Russia, but may also affect other regions, such as the US, depending on political developments. The PVA TePla Group continually reviews the need for export licenses and, in the case of high-risk orders, hedges the political risk through capital goods credit insurance policies as required. A susceptibility to trade barriers will always remain, as contracts with insurance companies are only a limited option when political risks escalate. The PVA TePla Group counters this potential development by operating regional subsidiaries in key markets, meaning that corresponding supply chains can alternatively be set up in the relevant countries and any trade barriers that may arise can be bypassed.

OPERATING OPPORTUNITIES AND RISKS

Sales

In some regions, PVA TePla AG's subsidiaries work with commercial companies and depend on their agency activity to a certain extent. Subsidiaries, which play an active part in key sales markets for the PVA TePla Group, actively support sales activities and reduce dependency. The sales strategy is also regularly reviewed. Delays in delivering systems may result in penalty risks or extra costs. Stronger project management is intended to reduce delivery delays and further cut lead times. Sales could be significantly affected by travel restrictions imposed by individual countries or groups of countries as part of government measures to combat COVID-19, which could considerably affect sales of our products.

Procurement Markets

The risk of delivery delays and non-delivery is countered by carefully identifying and closely monitoring suppliers. Dependence on individual suppliers cannot be ruled out, but is largely limited by having multiple qualified suppliers for key components wherever possible, and diversifying deliveries among them. The risk of supplier failure (e.g. as a result of insolvency) is substantially reduced by considering the supplier's economic situation and the systematic selection and evaluation of alternative suppliers. In addition, risks may result from delays and disruptions to supply chains as a result of catastrophes (including pandemics), cyber incidents or financial problems at suppliers, especially if alternative sources of supply or transport options are not found in time or not found at all. The worsening COVID-19 pandemic and the associated lockdown in Europe may result in financial problems at suppliers. The partial suspension of companies' obligation to declare bankruptcy could make it difficult for the PVA TePla Group to identify difficulties at suppliers in time.

Care is taken to ensure that all major suppliers have adequate quality management systems and third-party liability insurance coverage in place. Very high market demand has repeatedly resulted in production bottlenecks for suppliers, in particular in vessel production. Attempts are being made to further strengthen the supplier base by using additional suppliers.

Capacity Utilization

Through increased collaboration with temporary workers and, possibly, third-party companies as well as staff pooling within the PVA TePla Group, capacity can be used without causing future overcapacity by increasing headcount. The lack of larger orders can lead to overcapacity at PVA TePla Group production sites. This can be offset by reducing overtime, flextime and, where applicable, short-time working schemes.

Staffing

The success of the PVA TePla Group primarily depends on its employees and their expertise. However, competition for skilled employees and managers in the industries and regions in which the PVA TePla Group operates is intense and there is a risk of fluctuation. The Group's future success therefore largely depends on its ability to hire, integrate and retain qualified personnel. Strategic personnel planning, for qualified personnel and management level, as well as co-operations with German universities and research institutes are intended to prevent this from happening. Another major focal point is diversity and structured succession planning. As before, this risk is to be prevented by documenting expertise, extending redundancy and holding performance reviews. Should the personnel risk materialize, it is expected to impact the business activities and also the results of the PVA TePla Group depending on the extent of the bottlenecks in personnel.

IT

Digital technologies are an ingrained part of the business portfolio. The rise in cyber security threats around the world and the increasingly professional nature of computer crime create risks with regard to the security of products, systems and networks, as well as risks related to data confidentiality, availability and reliability. Various external data sources show that this trend has accelerated during COVID-19. In particular, there has been a substantial jump in the number of phishing attacks and harmful websites.

At PVA TePla Group, a global, growth-oriented business, the information technology (IT) in place in all divisions plays a major role. There are risks with regard to the three safety objectives:

- Confidentiality
- Integrity
- Availability

In particular, these cover unauthorized access, modifying or copying sensitive electronic company or customer data and system availability issues due to faults or disasters. Properly handling data ensures data accuracy and integrity and guarantees that systems function smoothly. High quality standards for our products also apply to handling our customers' and employees' data. Data security, transparency and data privacy are our top priorities. IT security technology such as firewalls and intrusion prevention systems, as well as multiple access protection, are used to mitigate the risk of unauthorized access and modifying or copying sensitive electronic company or customer data. Security is also heightened by restricting the number of authorizations issued for access to systems and information and by keeping back-ups of key data files. There is back-up IT infrastructure in place to protect against risks that could occur in the case of faults or disasters. As part of company-wide standards, commercial technologies are used to protect IT systems, which are standardized and updated on an ongoing basis to ensure they remain fit for the future. Ongoing efforts to boost automation improve process security and the quality of processing. The development and Group-wide use of IT governance processes, in particular the ongoing standardization of the IT risk management process, also help identify risks at an early stage and effectively reduce these risks. Our IT security program focuses on ongoing development of Group-wide security measures, including establishing an IT security control center. This is designed to recognize cyber attacks at an early stage, helping deal with attacks using the latest defense methods. To complement the technical measures, PVA TePla AG and its subsidiaries educate and train their employees.

Despite all precautions, IT problems and the related negative impact on business processes and unauthorized data access cannot be completely ruled out.

Legal Disputes

At present, there are no legal disputes involving PVA TePla AG or its subsidiaries. The international business activities of the PVA TePla Group mean that the companies are exposed to various legal risks. National and international contract drafting and taxation are particularly important areas here. Direct impacts on the result of operations and the net asset situation are possible in these areas.

The risk arising from sales and service contracts is essentially minimized through the use of standardized terms and conditions. In the case of special contracts, the wording and content are initially examined in-house, if applicable with the involvement of an external legal advisor. The specialist knowledge required to assess day-to-day business is provided by qualified employees. Product liability risks are covered by corresponding insurance policies.

FINANCIAL OPPORTUNITIES AND RISKS

Tax Law

Because of the volume of business from abroad, the complexity of the related tax issues has increased. These particularly include the topics "transfer pricing and business between the companies of the PVA TePla Group" and "VAT", especially on services and tax arrangements for employees who are sent abroad. These topics are handled in close collaboration with tax advisors so that there are no discernible notable risks. However, there are increasing expenses with respect to these consultations, the internal administration and the implementation of regulations with the associated registrations.

General Statement by the Management Board

The Management Board of PVA TePla AG is responsible for the risk management of the Group and assesses the Group's risks and opportunities. The conclusions are summarized as follows:

Summary of Risks

Despite the multiple knock-on effects of the COVID-19 pandemic in fiscal 2020, there has been no material change to the PVA TePla Group's overall risk exposure compared to the fiscal year 2019. The main risks continue to stem from the market developments mentioned above, the related reticence of customers to invest, technological developments, the supplier risk and risks from trade barriers. The Management Board believes that the greatest risk comes from the COVID-19 pandemic continuing to drag on for a long time, together with all of the aftereffects described above that are entirely beyond our control. Personnel risks, IT security risks, risks from legal disputes and the risks from credit covenant breaches remained essentially unchanged compared to the 2019 fiscal year.

No risks are currently identified that, either individually or as a whole, pose a risk to the Group as a going concern.

Summary of Opportunities

The greatest opportunity for the PVA TePla Group is still designing and producing innovative products to manufacture top-quality materials and component parts, especially for the semiconductor industry. This is driven by ongoing advances in digitalization and the creation of new markets, such as e-mobility, resulting from this.

There have been no material changes to overall opportunities for the PVA TePla Group in comparison to the previous year.

5. FORECAST REPORT

The forecast report describes the expected business development of both PVA TePla AG and the PVA TePla Group in fiscal year 2021. The statements in this chapter were made on the basis of the current Group portfolio and customers' portfolios and assumptions on future macroeconomic and industry developments.

The actual results may, as usual in the project business, deviate substantially from the forecast development, if the underlying assumptions later prove to be incorrect. PVA TePla AG is under no obligation to update forward-looking statements or to adjust these to future developments. It assumes no guarantee or liability for ensuring that the business position, net assets, financial position or results of operations actually achieved match the assumptions and estimates.

5.1. Macroeconomic Environment Forecast

The global economy is expected to recover from 2020's recession triggered by COVID-19 in the 2021 fiscal year. At the start of the 2021 fiscal year, it is very difficult to predict how the outbreak of the virus will continue (e.g. waves of new infections, lockdowns and potential variants), progress in medical treatment, the availability and take-up of vaccinations, potential repercussions resulting from weak demand or tensions on the financial market (increase in insolvencies). In Europe, the new wave of infection towards the end of 2020, which resulted in lock-downs of varying severity in different countries, is expected to disrupt recovery and cause a decline in economic activity in the first quarter of the 2021 fiscal year. Nevertheless, the impact is likely to be less severe than in spring 2020 given that global recovery – especially in Asia and the US – is still intact and there are no major supply chain disruptions.

Global: Following the collapse last year brought about by the COVID-19 pandemic, gross domestic product (GDP) growth of 4% is anticipated for 2021, although this is still more than 5% lower than pre-pandemic forecasts. Global trade is expected to see growth of 5.1% in 2021. COVID-19 caused national debt to skyrocket in many countries as a result of the global recession and the economic policy response to this. Even before the pandemic, the rapid rise in countries' debt had raised concerns over debt sustainability and the possibility of a financial crisis. The pandemic has exacerbated this.

USA: Anticipated growth for 2021 is put at 3.5%. Economic activity is expected to shore up in the second half of the year as the pandemic subsides. Thanks to additional fiscal support and better pandemic management during the forecast period, economic growth may be higher than expected.

Eurozone: After a historic slump brought on by the pandemic, signs that economic activity was recovering in the third quarter of last year were interrupted by a strong resurgence of COVID-19, prompting many member states to reimpose strict lockdown restrictions. Multiple service sectors that are essential to the region's economy – chiefly tourism – are still crippled and are unlikely to recover quickly. In spite of the pandemic, manufacturing and production continued to pick up, aided by foreign demand. Growth is expected to recover to 3.6% in 2021 thanks to better management of COVID-19, the start of vaccinations and higher foreign demand, primarily from China.

China: Forecasts predict that growth will climb to 7.9% in 2021. Even if GDP returns to pre-pandemic levels in 2021, figures in 2022 will likely still remain about 2% lower than projected before the pandemic, as the crisis will deepen existing economic imbalances.

5.2. Sector Development Forecast

The World Semiconductor Trade Statistics (WSTS) organization expects the semiconductor market to come to USD 469 billion in the current fiscal year, which is 8.4% higher than in 2020.

According to the German Engineering Federation (VDMA), many companies are confident that they can overcome the consequences of the pandemic step by step in 2021. Approximately three-quarters of companies anticipate growth in sales revenues. Almost one in two companies says that an upturn of between 0% and 10% is realistic. 43% of companies expect to see progress mainly in the China and North America sales markets. On the Chinese sales market, a further 14% of companies believe that substantial improvement is possible. By contrast, machinery and plant manufacturers are less optimistic about European sales markets, including Germany. 65% of firms do not expect to see any change for the better in Germany.

5.3. Expected Business Development

PVA TePla Group outlook for fiscal 2021:

The PVA TePla Group's business development outlook in the current fiscal year 2021 is based on the expectations and assumptions regarding general economic performance outlined above, specific sector development, the order backlog as of December 31, 2020 and project expectations for industrial business. The forecast for fiscal year 2021 assumes that COVID-19 will not have a permanent negative impact on the global economy. However, there is ongoing uncertainty on the market, which applies particularly to the timely processing of projects. Based on the current project structure in the order backlog, for fiscal year 2021 the Management Board is anticipating sales revenues in the range of EUR 140 million and EUR 150 million and EBITDA between EUR 18 million and EUR 20 million.

For incoming orders in 2021, the Management Board is already observing considerable year-on-year growth rates and anticipates the continuation of this trend over the course of the year.

Medium-term outlook for the PVA TePla Group:

For the 2022 fiscal year and beyond, the company anticipates considerable growth, both for sales revenues and earnings.

As a consequence, the PVA TePla Group is anticipating strongly increasing demand for silicon carbide elements and wafers. For this reason, the company is reinforcing its research and development activities in this area and will be investing considerable funds in process development for 6-inch and 8-inch wafers. In the medium term, the company is expecting a considerable earnings contribution from this sector.

Advances in digitalization and rapid ongoing technical production optimization of e-mobility is accelerating demand for semi-conductors, especially in the area of power electronics and thus also in PVA TePla Group systems.

PVA TePla AG Outlook for Fiscal 2021:

For the 2021 financial year, PVA TePla AG, which exercises almost entirely holding functions, expects sales revenues and an operating result (EBITDA) at approximately the level of the previous year.

6. REMUNERATION REPORT

The remuneration report forms part of the combined management report and includes the basics of the remuneration system for the Management Board and Supervisory Board as well as the amount and structure of the remuneration. The remuneration report is based on the recommendations of the German Corporate Governance Code (the „Code“) and meets the requirements in accordance with the provisions under Sections 289a (2), 314 (1) no. 6a and b, 315a (2) HGB. In this remuneration report, PVA TePla AG discloses both the remuneration of the Management Board and that of the Supervisory Board separately.

6.1. Management Board

Members of the Management Board

- **Alfred Schopf** (Chief Executive Officer), member of the Management Board since 2017, appointed until 2021
- **Oliver Höfer** (Chief Operating Officer), member of the Management Board since 2013, appointed until 2021
- **Dr. Andreas Mühe** (Chief Technology Officer), member of the Management Board since 2020, appointed until 2023
- **Jalin Ketter** (Chief Financial Officer), member of the Management Board since 2020, appointed until 2023

Manfred Bender was appointed as Chief Executive Officer in January 2021.

Basics of the Remuneration System for the Management Board

The Management Board remuneration system at PVA TePla AG aims to incentivize long-term and sustainable company management. The remuneration of the Management Board members consists of a basic salary not based on performance, other benefits (mainly non-cash benefits from the use of a company car, subsidized contributions to health insurance and contributions to a pension fund) and performance-based, variable remuneration components in the form of bonus payments. The performance-based, variable remuneration component is different for each Management Board member and the amounts are subject to limits. The Supervisory Board is responsible for determining Management Board remuneration. The entire Supervisory Board determines and reviews the Management Board remuneration system on a regular basis and decides on all contracts for the members of the Management Board. The following bonus regulations apply to members of the Management Board:

1. A short-term bonus payment which is calculated as a percentage of consolidated EBIT and which is limited in terms of amount. A long-term bonus component calculated in line with PVA TePla AG's market capitalization and limited in terms of amount.
2. A long-term bonus component calculated in line with PVA TePla AG's market capitalization and limited in terms of amount.

For Alfred Schopf, in addition to the fixed salary, a variable salary component based on the consolidated operating result (EBIT) is agreed for fiscal year 2020 et seq., which amounts to a maximum of 1.58 times the annual fixed salary.

For the remaining members of the Management Board, Oliver Höfer, Dr. Andreas Mühe and Jalin Ketter, a variable salary component based on the consolidated operating result (EBIT) for fiscal year 2020 et seq. has been agreed, which amounts to a maximum of the annual fixed salary. In addition, there is a variable salary component based on a multi-year assessment basis based on the share price of the PVA TePla AG, which amounts to a maximum of EUR 250 thousand. The contracts for the members of the Management Board foresees settlement payments in the event of the premature termination of activities as member of the Management Board, the amount of which depending on contract of employment is limited up to two years' salary (settlement cap). In the event of change of control and a subsequent premature termination of Management Board activities, the members receive remuneration which should not exceed 150% of the settlement cap.

Remuneration of the Management Board

The total remuneration of members of the Management Board in the 2020 fiscal year amounted to EUR 1,893 thousand (previous year: EUR 1,323 thousand).

On this basis, members of the Management Board received the following remuneration in fiscal year 2020:

[EUR'000]	performance-related component				Total 2020	Total 2019
	fixed compensation	variable compensation ¹ **	of which long term*	Other benefits		
Schopf	260	493	0	33	786	825
Höfer	202	330	88	15	547	498
Ketter	87	173	88	13	273	0
Mühe	95	181	88	11	287	0
Total	644	1,177	264	72	1,893	1,323

¹) Payment of long-term compensation is made after a period of commitment linked to the contract period, taking into account market capitalization.

^{**}) In the 2020 financial year, the long-term component of the years 2017 to 2020 was paid out to two members of the Executive Board in the amount of TEUR 750.

The values presented above for the performance-based component include amounts granted in 2020 for fiscal year 2019 less the amounts recognized and reported as provisions in fiscal year 2019.

Provisions established in 2020 for fiscal year 2020 are also included. With the exception of the long-term performance-based remuneration components, the amounts above are payable over the short term. Employer contributions to pension insurance are not paid. There are no pension commitments for any current Management Board members. No real share options were granted to members of the Management Board in fiscal year 2019 or in fiscal year 2020.

In fiscal year 2020, EUR 133 thousand was paid to former members of the Management Board as pensions (previous year: EUR 119 thousand). As of the balance sheet date December 31, 2020, there was a provision of EUR 2,360 thousand in the consolidated financial statements for these pension obligations (previous year: EUR 2,403 thousand). As shown in PVA TePla AG's annual financial statements, in fiscal year 2020, EUR 133 thousand was paid to former members of the Management Board as pensions (previous year: EUR 119 thousand). As of the balance sheet date December 31, 2020, there was a provision of EUR 1,979 thousand in the financial statements for these pension obligations (previous year: EUR 1,953 thousand).

6.2. Supervisory Board

Members of the Supervisory Board

- **Alexander von Witzleben**, Weimar, Chairman, member of the Supervisory Board since 2004, appointed until 2023
Arbonia AG, Arbon/Switzerland (President of the Board of Directors and CEO)

Member of the following other supervisory bodies:

- VERBIO Vereinigte BioEnergie AG, Leipzig (Chairman of the Supervisory Board)
- KAEFER Isoliertechnik GmbH & Co. KG, Bremen (Member of the Advisory Board)
- Siegwerk Druckfarben AG & Co. KGaA, Siegburg (Member of the Supervisory Board)
- Feintool International Holding AG, Lyss (President of the Administration Board)
- Artemis Holding AG, Aarburg/Switzerland (Member of the Advisory Board)
- **Prof. Dr. Gernot Hebestreit**, Leverkusen, Deputy Chairman, Member of the Supervisory Board since 2008, appointed until 2023
Warth & Klein Grant Thornton AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Partner, member of the Board of Directors)

Member of the following other supervisory bodies:

- Comvis AG, Essen (Deputy Chairman of the Supervisory Board)
- **Prof. Dr. Markus H. Thoma**, Schöffengrund, member of the Supervisory Board since 2014, appointed until 2023
Professor of Plasma and Astronautics at the University of Giessen

Member of the following other supervisory bodies:

- Nationales Zentrum für Plasmamedizin e.V. (member of the Board of Trustees)

Basics of the Remuneration System for the Supervisory Board

The remuneration of the members of the Supervisory Board is regulated in Section 14 of PVA TePla AG's Articles of Association. Members of the Supervisory Board receive total fixed annual remuneration of EUR 25 thousand (plus any VAT owed), which is payable after the end of the respective fiscal year. The Chairman of the Supervisory Board receives twice the existing fixed remuneration and the Deputy Chairman of the Supervisory Board receives 1 time the existing fixed remuneration. Members of the Supervisory Board who did not sit on the Board for the entire fiscal year receive remuneration on a pro rata basis. The remuneration of the Supervisory Board does not include any performance-related components.

Remuneration of the Supervisory Board

Remuneration for the Supervisory Board totaled EUR 100 thousand in fiscal 2020 (previous year: EUR 100 thousand). The total, non-performance based remuneration of the Supervisory Board is paid in the following fiscal year. As of December 31, 2020, remuneration for fiscal 2020 is recognized in the statement of financial position under „Other current liabilities“.

[EUR'000]	Fixed compensation	Variable compensation	Total 2020	Total 2018
von Witzleben	50	0	50	50
Hebestreit	25	0	25	25
Thoma	25	0	25	25
Total	100	0	100	100

7. ASSUMPTION OF RELEVANT DISCLOSURES

Disclosures in accordance with Sections 289a, 315a of the German Commercial Code (Handelsgesetzbuch - HGB).

COMPOSITION OF SUBSCRIBED CAPITAL (NO. 1)

As of December 31, 2020, the issued share capital of PVA TePla AG came to EUR 21,749,988 and consisted of 21,749,988 no-par value bearer shares with a nominal value of EUR 1.00 each.

RESTRICTIONS WHICH AFFECT VOTING RIGHTS OR THE SALE/TRANSFERABILITY OF SHARES (NO. 2)

The Management Board is not aware of any restrictions which affect voting rights or the sale/transferability of shares. In particular, it is not aware of any restrictions that may result from agreements between shareholders.

DIRECT OR INDIRECT SHAREHOLDINGS THAT EXCEED 10% OF VOTING RIGHTS (NO. 3)

According to disclosures filed with the company, PA Beteiligungsgesellschaft mbH, Wettenberg, Germany held a share of voting rights in PVA TePla AG as of December 31, 2020, above the 10% threshold.

HOLDERS OF SHARES WITH SPECIAL RIGHTS (NO. 4)

There were and are no shares in PVA TePla AG with special rights that impart the right of control.

TYPE OF VOTING RIGHTS CONTROL IN THE CASE OF EMPLOYEE SHAREHOLDINGS (NO. 5)

There are no employees with a share in PVA TePla AG's share capital who cannot directly exercise their control rights.

STATUTORY PROVISIONS AND CONDITIONS OF THE ARTICLES OF ASSOCIATION ON APPOINTING AND RECALLING MEMBERS OF THE MANAGEMENT BOARD AND ON AMENDING THE ARTICLES OF ASSOCIATION (NO. 6)

a) Appointing Management Board Members

The appointment of PVA TePla AG Management Board members is done in accordance with Section 84 of the German Stock Corporation Act (AktG), and Section 6 (2) of the PVA TePla AG Articles of Incorporation. The following is established therein: „Article 2: The appointment of members of the Management Board, the revocation of their appointment as well as the concluding, the amendment and the termination of contracts of employment with members of the Management Board are effected by the Supervisory Board. The same applies to the appointment of a member of the Management Board as chairman or as spokesman of the Management Board.“

b) Recalling Management Board Members

In accordance with Section 84 (3) sentence 1 of the German Stock Corporation Act (AktG), the Supervisory Board may revoke the appointment of Management Board members and the appointment as Chief Executive Officer for good cause. Section 84 (3) sentence 2 AktG defines good cause as gross dereliction of duties, inability to properly manage the company's affairs, or a vote of no confidence by the Annual General Meeting, unless this vote of confidence took place for reasons that are evidently unsubstantiated. Under Section 84 (3) sentence 4 AktG, the recalling of Management Board members is valid until it has been finally and conclusively deemed invalid by a court of law.

c) Amending the Company's Articles of Association

In accordance with Section 179 (1) sentence 1 AktG, any amendment to the Articles of Association requires a resolution by the Annual General Meeting. However, Section 179 (1) sentence 2 AktG authorizes the Supervisory Board to resolve amendments to the Articles of Association that relate only to the wording.

Section 179 (2) sentence 1 AktG states that an Annual General Meeting resolution to amend the Articles of Association requires a majority of at least three-quarters of the share capital represented at the time of the resolution. Under Section 179 (2) sentence 2 AktG, however, the Articles of Association may stipulate a different majority when the matter involves modifying the company's purpose and may also impose further requirements. On the basis of this statutory authorization, Section 14 (3) sentence 3 of the Articles of Association stipulates that resolutions designed to modify the company's Articles of Association are resolved by simple majority of votes cast, provided this is permitted by law.

AUTHORITY OF THE MANAGEMENT BOARD TO ISSUE OR REPURCHASE SHARES (NO. 7)

As of December 31, 2020, the Management Board is authorized via Annual General Meeting resolution to issue new shares from authorized capital in the amount of EUR 10,874,994.00 by June 20, 2022. Furthermore, the Management Board is authorized via Annual General Meeting resolution to buy back shares amounting to 10% of authorized capital by June 18, 2023.

KEY AGREEMENTS CONTINGENT UPON A CHANGE OF CONTROL RESULTING FROM A TAKEOVER BID (NO. 8)

The current master agreements with the banks are based on a largely unchanged shareholder structure and, in case of a change in control, calls for renegotiation or, in one case, specifies that the bank has a right to cancellation. The provisions for a publicly funded research and development project also include a special right to cancellation in case of a change in control. There are no other agreements that are contingent upon a change of control as the result of a takeover bid.

COMPENSATION AGREEMENTS IN THE EVENT OF A TAKEOVER BID (NO. 9)

In the event of a change of control, Management Board members receive benefits that should not exceed 150% of the severance payment cap (value of two years' remuneration including benefits).

8. DEPENDENCY REPORT

In the past, PA Beteiligungsgesellschaft mbH held the majority of votes at the Annual General Meeting. The Management Board of PVA TePla AG therefore prepared a dependency report for fiscal year 2020 pursuant to Section 312 of the AktG: „We declare that according to the information known to us at this time, our company engaged in legal transactions with dependent companies pursuant to Section 312 of the AktG and received appropriate compensation in all cases. The company did not take or fail to take any reportable measures.“

9. COMPANY MANAGEMENT DECLARATION

The PVA TePla AG Management Board and Supervisory Board are committed to the recognized standards of good and responsible company management and align their management and monitoring in accordance with the requirements of the German Corporate Governance Code (the „Code“). The standards applied are set out in the Company Management Declaration in accordance with Section 289f in connection with Section 315d of the German Commercial Code (Handelsgesetzbuch - HGB). PVA TePla AG publishes the Company Management Declaration (Section 289f HGB) and the Group's Company Management Declaration (Section 315d HGB) on its website at <https://www.pvatepla.com/en/investor-relations/corporate-governance/>. This declaration also contains the Declaration of Compliance relating to the German Corporate Governance Code in accordance with Section 161 AktG, which can be accessed at <https://www.pvatepla.com/en/investor-relations/corporate-governance/>.

10. NON-FINANCIAL GROUP REPORT IN ACCORDANCE WITH SECTION 315B HGB

In accordance with the requirements of section 315b (1), (3) HGB, the PVA TePla AG Management Board has prepared a non-financial Group report for fiscal 2020. The declaration is made available in a separate non-financial report pursuant to sections 315b, 315c HGB in the Federal Gazette together with the combined management report, and on the company's website at <https://www.pvatepla.com/investor-relations/nachhaltigkeit>.

Wettenberg, March 21, 2021

PVA TePla AG
Management Board



Manfred Bender
CEO



Alfred Schopf
CEO



Jalin Ketter
CFO



Oliver Höfer
COO



Dr. Andreas Mühe
CTO

Responsibility statement

“To the best of our knowledge we assure that in accordance with the applicable reporting principles, the Consolidated Financial Statements and the separate financial statements give a true and fair view of the net assets, financial position and profit or loss of the Group and the AG, and the Group Management Report and the Management Report give a true and fair view of the development and performance of the business and the position of the Group and of the company, together with a description of the principle opportunities and risks associated with the expected development of the Group and the company.”

Wettenberg, March 19, 2021

PVA TePla AG



Manfred Bender
CEO



Alfred Schopf
CEO



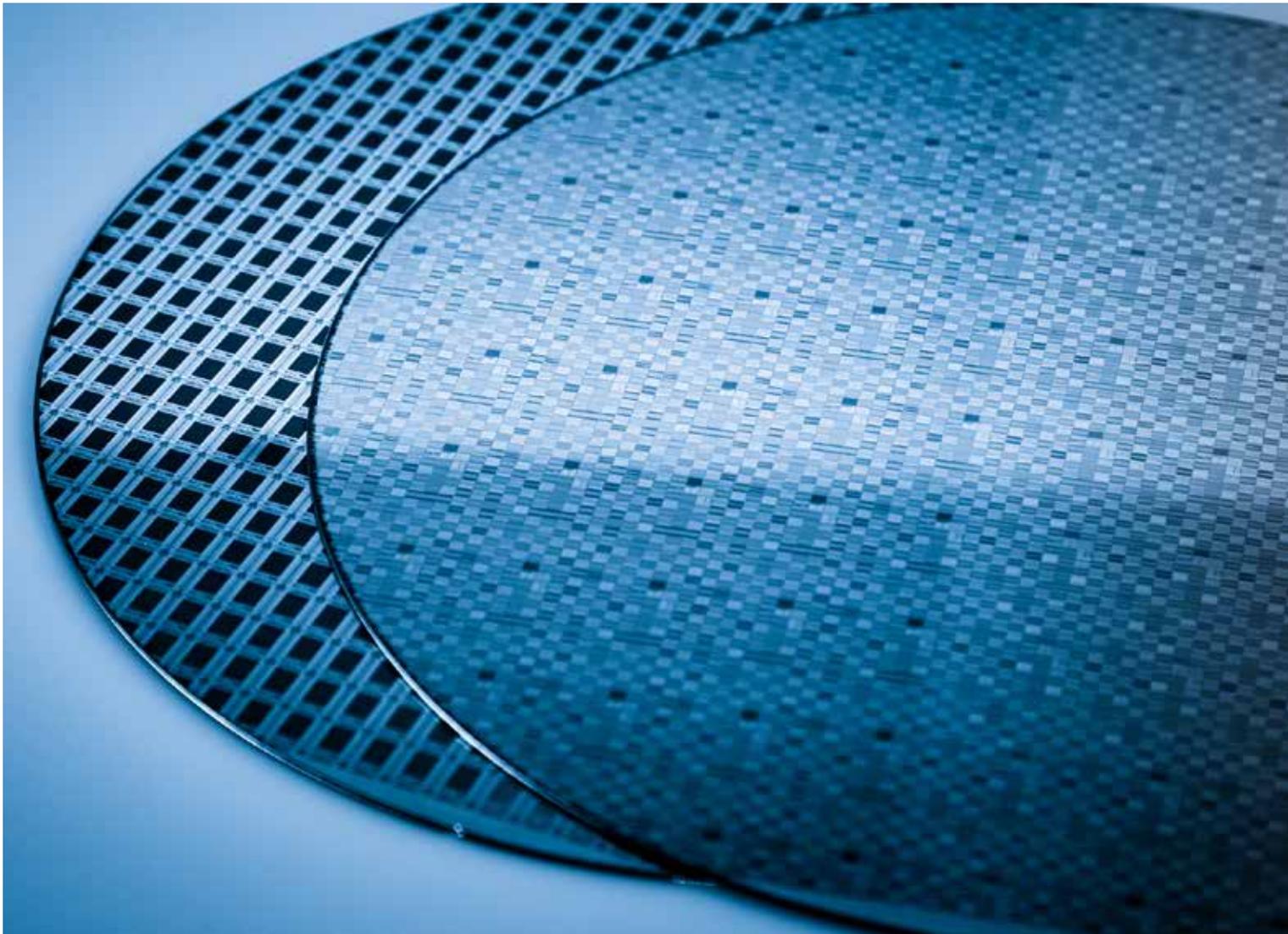
Jalin Ketter
CFO



Oliver Höfer
COO



Dr. Andreas Mühe
CTO



GROUP FINANCIAL STATEMENTS

CONSOLIDATED BALANCE SHEET	55	RESPONSIBILITY STATEMENT	111
CONSOLIDATED INCOME STATEMENT	57	INDEPENDENT AUDITOR'S REPORT	112
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME	58		
CONSOLIDATED CASH FLOW STATEMENT	59		
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY	60		
GROUP NOTES	61		

Group Notes

CONSOLIDATED BALANCE SHEET

ASSETS EUR '000	Notes	Dec, 31, 2020	Dec, 31, 2019
Non-current assets			
Intangible assets	8	11,081	11,471
Right-of-use assets	8	2,695	2,175
Property, plant and equipment	9	28,596	30,185
Non-current investments	10	393	3,014
Deferred tax assets	13	4,531	5,124
Total non-current assets		47,296	51,969
Current assets			
Inventories	11	67,627	65,217
Trade and other receivables	12	24,802	27,378
Contract assets	12	7,674	10,458
Tax repayments		116	341
Cash and cash equivalents	G	29,730	25,570
Total current assets		129,949	128,964
Total		177,245	180,933

LIABILITIES AND SHAREHOLDERS' EQUITY EUR'000	Notes	Dec, 31, 2020	Dec, 31, 2019
Shareholders' equity			
Share capital	H	21,750	21,750
Reserves	H	47,564	35,565
Equity of which attributable to shareholders of PVA TePla AG		69,314	57,315
Minority interest	H	0	0
Total		69,314	57,315
Non-current liabilities			
Retirement pension provisions	15	17,335	17,223
Other provisions	16	327	62
Financial liabilities	14	1,700	3,231
Other financial liabilities		0	114
Deferred tax liabilities	13	3,858	2,761
Total		23,220	23,391
Current liabilities			
Other provisions	16	3,628	3,552
Financial liabilities	14	1,252	1,308
Liabilities to employees		4,774	4,050
Trade payables		7,991	10,792
Contract liabilities	17	62,859	78,605
Provisions for taxes		1,781	620
Other liabilities		2,426	1,300
Total		84,711	100,227
Total		177,245	180,933

CONSOLIDATED INCOME STATEMENT

EUR'000	Notes	Jan, 1 - Dec, 31, 2020	Jan, 1 - Dec, 31, 2019
Sales revenues	1	137,036	130,968
Cost of sales		-93,862	-93,271
Gross profit		43,174	37,697
Selling and distributing expenses		-12,408	-12,120
General administrative expenses		-8,900	-8,760
Research and development expenses	2	-4,593	-4,753
Other operating income	3	3,939	3,085
Other operating expenses	3	-2,694	-2,844
* thereof impairment losses on financial assets		-114	-820
Operating result (EBIT)		18,518	12,305
Finance revenues	4	7	127
Finance costs	4	-680	-612
Financial result and share of profits from associates		-673	-485
Net result before tax		17,846	11,820
Income taxes	5	-5,117	-4,107
Consolidated net result for the year		12,729	7,713
of which attributable to			
Shareholders of PVA TePla AG		12,729	7,629
Minority interest		0	84
Earnings per share			
Earnings per share (basic) in EUR	6	0.59	0.35
Earnings per share (diluted) in EUR	6	0.59	0.35

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

EUR'000	Jan, 1 - Dec, 31, 2020	Jan, 1 - Dec, 31, 2019
Consolidated net result for the year	12,729	7,713
of which attributable to shareholders of PVA TePla AG	12,729	7,629
of which attributable to minority interest	0	84
Other comprehensive income		
Items that may be reclassified to profit or loss		
Currency changes	-445	337
Income taxes	0	0
Changes recognized outside profit or loss (currency changes)	-445	337
Total of items that may be reclassified to profit or loss	-445	337
Items that will never reclassified to profit or loss		
Changes in pension provisions	-401	-2,117
Income taxes	116	614
Changes recognized outside profit or loss (pension provisions)	-285	-1,503
Total of items that will never reclassified to profit or loss	-285	-1,503
Total comprehensive income	11,999	6,547
of which attributable to shareholders of PVA TePla AG	11,999	6,463
of which attributable to minority interest	0	84

CONSOLIDATED CASH FLOW STATEMENT

EUR'000	Jan, 1 - Dec, 31, 2020	Jan, 1 - Dec, 31, 2019
Consolidated net result for the year	12,729	7,713
Adjustments to the consolidated net result for the year for reconciliation to the cash-flow operating activities:		
+ Income taxes	5,116	4,107
- Finance revenues	-7	-127
+ Finance costs	680	612
= Operating result (EBIT)	18,518	12,305
+/- Income tax payments	-1,910	-2,507
+ Amortization and depreciation	4,230	3,907
-/+ Gains/losses on disposals of non-current assets	2	13
+/- Other non-cash expenses/income	-653	99
-/+ Increase/decrease in inventories, trade receivables and other assets	5,701	-23,768
+/- Increase/decrease in provisions	-461	628
+/- Increase/decrease in trade payables and other liabilities	-17,362	8,732
= Cash-flow from operating activities	8,065	-591
- Cash flow from obtaining control of subsidiaries or other business less acquired cash	-187	-850
- Payment of intangible assets and property, plant and equipment	-805	-2,648
+ Receipts from financial assets	6,000	0
- Cash outflows for investments in financial assets	-4,375	-9,000
+ Interest receipts	7	11
= Cash-flow from investing activities	640	-12,487
- Payments for the repayment of leasing liabilities	-830	-663
- Payments from redumption of financial liabilities	-3,154	-668
- Payment of interest	-328	-92
= Cash-flow from financing activities	-4,312	-1,423
Net change in cash and cash equivalents	4,393	-14,501
+/- Effect of exchange rate fluctuations on cash and cash equivalents	-233	57
+ Cash and cash equivalents at the beginning of the period	25,570	40,014
= Cash and cash equivalents at the end of the period	29,730	25,570

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

EUR'000	Shared issues		Revenue reserves	Other reserves		Of which attributable to shareholders of PVA TePla AG	Minority interest	Total shareholders' interest
				Currency exchange	Pension provisions			
	Number							
As at January 1, 2019	21,749,988	21,750	33,320	121	-4,339	50,852	-84	50,768
Total			7,629	337	-1,503	6,463	84	6,547
As at December 31, 2019	21,749,988	21,750	40,949	458	-5,842	57,315	0	57,315
As at January 1, 2020	21,749,988	21,750	40,949	458	-5,842	57,315	0	57,315
Total			12,729	-445	-285	11,999	0	11,999
As at December 31, 2020	21,749,988	21,750	53,678	13	-6,127	69,314	0	69,314

Group Notes

A. BASIS OF PRESENTATION

Domicile and Legal Form of the Company

PVA TePla AG, Wettenberg (hereinafter "PVA TePla AG") is a stock corporation in accordance with German law. The Company is entered in the commercial register of the Giessen Local Court under HRB 6845 and is domiciled in 35435 Wettenberg. The shares of PVA TePla AG are listed in the Prime Standard of the Frankfurt Stock Exchange (ISIN: DE0007461006).

Business Activities and Business Segments

As a technology company, PVA TePla AG and its subsidiaries (hereinafter "PVA TePla Group") refine and produce materials, which are used for example in the semiconductor industry. The focus of operating activities in the PVA TePla Group is the development, manufacture and sale of processes, products, systems and services in materials technology, plasma and ion beam technology, metrology and inspection technology for finely structured objects and vacuum technology. With locations in Germany, Italy, the USA, China, Taiwan and Singapore, the PVA TePla Group maintains business relationships around the world.

The Group divides its business activities into two divisions: Industrial Systems and Semiconductor Systems. Management, planning and controlling of the PVA TePla Group is based on these two divisions. For the purposes of segment reporting they form the two segments. The Semiconductor Systems division focuses on the production of crystal growing systems for manufacturing silicon crystals, while the Industrial Systems division produces sintering systems for manufacturing hard metal tools. The machines operate with vacuum, temperature, plasma and pressure.

Accounting Statements and General Principles of Presentation

The consolidated financial statements of the PVA TePla Group for the fiscal year 2020 ending December 31, 2020 have been prepared pursuant to Section 315e HGB in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) as they are to be applied in the European Union (EU). All International Financial Reporting Standards (IFRS), International Accounting Standards (IAS) and Interpretations issued by the IC Interpretations Committee (IFRS IC) that had to be applied in fiscal year 2020 were taken into consideration. Furthermore, all statutory disclosure and explanation obligations set out in the German Commercial Code (Handelsgesetzbuch - HGB) that go beyond the IASB's provisions were met.

The fiscal year for PVA TePla AG and its subsidiaries is the calendar year. PVA TePla AG's fiscal year 2020 began on January 1, 2020 and ended on December 31, 2020. The corresponding previous year thus covers the period from January 1, 2019 to December 31, 2019.

The consolidated financial statements were prepared in accordance with the historical cost principle on a going concern basis. This excludes derivative financial instruments measured at fair value.

The consolidated income statement has been prepared in accordance with the cost of sales method of presentation. To improve clarity of presentation or for reasons of materiality, items in the consolidated balance sheet and/or the consolidated income statement and the consolidated statement of comprehensive income have been combined and are explained in the Group notes. An explanation of the accounting policies used in relation to individual items of the consolidated balance sheet, consolidated income statement and consolidated statement of comprehensive income is given with the individual notes in the Group notes together with the relevant specific note information.

The presentation in the consolidated statement of financial position distinguishes between current and non-current assets and liabilities. Assets and liabilities are classified as current if they are due within one year or within a longer normal operating cycle. Deferred tax assets and liabilities are recognized as non-current in the consolidated balance sheet.

The reporting currency and the functional currency of the PVA TePla Group consolidated financial statements is the euro (EUR). Unless otherwise indicated, all amounts have been stated in thousands of euro (EUR '000). The figures in these financial statements may contain rounding differences of +/- one unit (EUR '000, % etc.) for reasons related to the calculations.

The PVA TePla Group's consolidated financial statements for the fiscal year from January 1, 2020 to December 31, 2020 were approved by the Management Board of PVA TePla AG and submitted to the Supervisory Board for review and approval on March 19, 2021.

B. CHANGES TO ACCOUNTING POLICIES

New and Updated Standards and Interpretations Adopted for the First Time in Fiscal Year 2020

The accounting policies applied in the PVA TePla Group's consolidated financial statements for the fiscal year 2020 match those used in the previous year (fiscal year 2019). However, the PVA TePla Group also applied the following new and updated Standards and Interpretations adopted in European law by the European Union for the first time in fiscal year 2020. For the PVA TePla Group there were no material changes as a result of their initial application in fiscal year 2020.

Standard/ interpretation	Title	Initial Application PVA TePla Group	Adoption by the EU Commission	Effect on the PVA TePla Group
Changes to IFRS 3	Definition of „business operation“	January 1, 2020	took place on April 21, 2020	no material impact
Changes to IFRS 9, IAS 39 and IFRS 7	Reform of the Reference interest rates	January 1, 2020	took place on January 15, 2020	no material impact
Changes to IAS 1 and IAS 8	Definition of „essential“	January 1, 2020	took place on November 29, 2019	no impact
Framework for financial reporting	Changes to references to the framework in IFRS standards	January 1, 2020	took place on November 29, 2019	no impact

Standards and Interpretations Mandatorily Applied in Future

The IASB/IFRS IC has issued the following statements that were still not mandatory to apply in fiscal year 2020. The PVA TePla Group does not intend to apply these new/updated Standards and Interpretations early.

Standard/ interpretation	Title	Initial Application PVA TePla Group	Adoption by the EU Commission	Effect on the PVA TePla Group
Change to IFRS 16	Covid 19-related rental concessions	June 1, 2020	took place on October 9, 2020	no impact
Changes to IFRS 4	Insurance contracts - postponement of the date of effective date	January 1, 2021	took place on December 15, 2020	no impact
Changes to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16	Reform of reference interest rates - Phase 2	January 1, 2021	took place on January 13, 2021	no material impact
Changes to IFRS 3	Reference to the financial reporting framework	January 1, 2022	no	no impact
Changes to IAS 16	Revenue is recognized before an asset is in its working condition. in its working condition	January 1, 2022	no	no impact
Changes to IAS 37	Onerous contracts - costs of fulfilling contracts	January 1, 2022	no	no material impact
Annual improvements	Annual Improvements to IFRS Cycle 2018-2020: Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41	January 1, 2022	no	no material impact
IFRS 17	Insurance contracts	January 1, 2023	no	No relevance
Changes to IAS 1	Classification of debt as current or non-current, including deferral of effective date	January 1, 2023	no	Effects are currently being analyzed
Changes to IAS 1 and IFRS Practice Statement 2	Disclosures on accounting methods	January 1, 2023	no	Effects are currently being analyzed
Changes to IAS 8	Definition of accounting estimates	January 1, 2023	no	Effects are currently being analyzed

C. COMPANIES INCLUDED IN CONSOLIDATION, PRINCIPLES OF CONSOLIDATION AND CURRENCY TRANSLATION

Companies Included in Consolidation

These consolidated financial statements include PVA TePla AG and its German and international subsidiaries over which it exercises control (PVA TePla Group). The Group exercises control when the PVA TePla AG has exposure or rights to variable returns from its involvement with an investee and can also use its power over the investee to influence these returns. It is generally assumed that having a majority of the (direct or indirect) voting rights constitutes control. The subsidiaries to be included in the consolidated financial statements are consolidated in the consolidated financial statements from the time it is possible to exercise control until the time it is no longer possible to exercise control.

In the consolidated financial statements of the PVA TePla Group as of December 31, 2020, in addition to PVA TePla AG eight German (previous year: eight) and eight foreign (previous year: six) subsidiaries were fully consolidated:

Company	Corporate domicile	Equity share [in %]	
		Direct share-holding 31.12.2020	Indirect shareholding 31.12.2020
PVA Industrial Vacuum Systems GmbH	Wettenberg, Germany	100	
PVA Crystal Growing Systems GmbH	Wettenberg, Germany	100	
PVA Metrology & Plasma Solutions GmbH	Wettenberg, Germany	100	
PVA Taiwan Ltd. (ehemals PVA Metrology & Plasma Solutions Taiwan Ltd.)	Hsinchu, Taiwan	100	
PVA TePla Analytical Systems GmbH	Westhausen, Germany	100	
PVA Löt- und Werkstofftechnik GmbH	Jena, Germany	100	
PVA Control GmbH	Wettenberg, Germany	100	
PVA SPA Software Entwicklungs GmbH	Coburg, Germany	100	
PVA Vakuum Anlagenbau Jena GmbH	Jena, Germany	100	
PVA Holding, LLC	Wilmington DE, USA	100	
OKOS Solutions, LLC	Manassas VA, USA		100
PVA TePla America Inc.	Corona CA, USA	100	
PVA TePla Singapore Pte. Ltd.	Singapur	100	
PVA TePla (China) Ltd.	Peking, VR China	100	
PVA Semiconductor Systems Xi'an Ltd.	Xi'an, VR China	100	
PVA Italy S.r.l.	Bozen, Italy	100	

Exemption in accordance with Section 264 (3) HGB

The following German subsidiaries of PVA TePla AG made use of disclosure exemptions in line with Section 264 (3) HGB and for the fiscal year 2020 are exempted from their obligation to prepare, audit and publish annual financial statements and a management report under German commercial law applying to corporations:

- PVA Industrial Vacuum Systems GmbH, Wettenberg
- PVA Crystal Growing Systems GmbH, Wettenberg
- PVA Metrology & Plasma Solutions GmbH, Wettenberg
- PVA TePla Analytical Systems GmbH, Westhausen
- PVA Löt- und Werkstofftechnik GmbH, Jena
- PVA Control GmbH, Wettenberg
- PVA SPA Software Entwicklungs GmbH, Coburg
- PVA Vakuum Anlagenbau Jena GmbH, Jena

Changes to the Companies Included in Consolidation in Fiscal Year 2020

Effective November 1, 2020, PVA TePla AG established PVA Holding, LLC, Wilmington, DE, USA ("PVA Holding, LLC"), in which PVA TePla AG directly holds a 100% stake. Effective November 6, 2020, PVA Holding, LLC, acquired all shares in OKOS Solutions, LLC, Manassas, VA, USA ("OKOS"). Since this date, this manufacturer of ultrasonic measuring equipment has been included in the consolidated financial statements of PVA TePla AG on a fully consolidated basis. OKOS develops and builds measuring equipment for the quality assessment of high-tech materials in industrial applications, such as aviation and aerospace, but also for the semiconductor market. The purchase price for all shares is EUR 1.5 million, of which EUR 0.9 million was paid in cash from existing liquidity.

PVA TePla Analytical Systems GmbH, Westhausen, which already has an excellent positioning with its ultrasonic equipment in the semiconductor market, is extending its market position in the United States market with a considerable intensification of sales and service to the customer. In return PVA TePla Analytical Systems will market OKOS measuring equipment in Europe. A further common area of growth is Asia where the two companies will be bundling their activities.

The fair values of the identifiable assets and liabilities at the date of acquisition broke down as follows:

[EUR'000]	November 6, 2020
Assets	
Property, plant and equipment	16
Intangible assets	65
Deferred tax assets	85
Inventories	433
Trade receivables	1,780
Cash and cash equivalents	699
Total assets	3,078
Liabilities	
Other provisions	1,265
Other liabilities	292
Deferred tax liabilities	16
Total liabilities	1,573
Identifiable net assets (Fair value)	1,505
Goodwill from company acquisition	16
Entire consideration (acquisition price)	1,521
Less acquired cash and cash equivalents	699
Net cash outflow	822

There were no material differences between the fair values and the carrying amounts of the previously recognized assets and liabilities of the acquired company, with the exception of the goodwill included in the separate financial statements of OKOS. In addition, as part of the purchase price allocation, a previously unrecognized present obligation in accordance with IFRS 3.23 was recognized at fair value of EUR 292 thousand at the acquisition date. The total purchase price to be paid with cash and cash equivalents amounted to EUR 1,521 thousand (discounted to the acquisition date), of which EUR 886 thousand was or is to be paid in the 2020 financial year and a further EUR 635 thousand in installments over the following five financial years. In the event of warranty claims resulting from the purchase agreement, there is initially a right of recourse to the portion of the purchase price not yet paid out.

Taking into account the acquired cash and cash equivalents of EUR 699 thousand, the net cash outflow from the acquisition amounts to EUR 822 thousand.

Goodwill of EUR 16 thousand related primarily to unidentifiable intangible assets. They cannot be separated from capitalized goodwill (such as human capital relating to the employee qualification and expertise). PVA TePla AG anticipates that it will not be possible to deduct taxes for the goodwill recognized in fiscal 2020.

The sales contribution from the acquisition of OKOS for the period from initial consolidation to December 31, 2020 is EUR 447 thousand and the profit contribution after taxes EUR 180 thousand. If the initial consolidation of OKOS had taken place at the start of fiscal 2020, this would have resulted in pro form consolidated sales of EUR 4,355 thousand and proform consolidated profit for the period of EUR 1,219 thousand. These proforma figures were prepared solely for indicative comparative purposes. They do not provide reliable information on the results that would actually have been generated if the acquisition had taken place at the start of fiscal year, or on future sales or results.

Changes to the Companies Included in Consolidation in Fiscal Year 2019

PVA Italy S.r.l., Bolzano, Italy, in which PVA TePla AG directly holds a 100% stake, was formed in May 2019. In November 2019, PVA Italy S.r.l. acquired the two "vessel production" units of LAINOX S.r.l. and SAP S.r.l.. With this acquisition the Italian subsidiaries will be responsible for the manufacture of vessels for the two divisions of the PVA TePla Group.

The fair values of the identifiable assets and liabilities of the two units at the date of acquisition break down as follows:

[EUR'000]	November 1, 2019
Assets	
Intangible assets	727
Property, plant and equipment	391
Total assets	1,118
Liabilities	
Other provisions	268
Total liabilities	268
Identifiable net assets (fair value)	850
Goodwill from company acquisition	0
Entire consideration (acquisition price)	850

Significant differences of fair values to carrying amounts relate to the recognition of not yet capitalized intangible assets (EUR 427 thousand), mainly resulting from expertise which has not yet been capitalized. The total purchase price to be settled with cash and cash equivalents was EUR 850 thousand which corresponds to the net cash outflow from the corporate acquisition.

The sales contribution from the acquisition of the sub-units for the period from initial consolidation to December 31, 2019 is EUR 0 thousand and the profit contribution is EUR -30 thousand. As the two sub-units have only intra-Group transactions, the sales contribution would also have been EUR 0 thousand if the acquisitions of the two subunits had been recognized from January 1, 2019.

In fiscal year 2019, PVA TePla AG also sold its entire interest in what had previously been the 51% subsidiary Xi'an HuaDe CGS Ltd. Xi'an, PR China for a price of CNY 100. This Chinese company was no longer operational, neither in fiscal year 2019 nor in the previous year and was being wound up. The deconsolidation loss of EUR 315 thousand is largely due to recognizing the foreign exchange losses of EUR 231 thousand in profit and loss which had previously been recognized in equity in the "currency translation" item.

Principles of Consolidation

The financial statements of PVA TePla AG and its subsidiaries included in the consolidated financial statements were prepared in accordance with standardized recognition and measurement principles as of the reporting date of the consolidated financial statements (December 31, 2020). Recognition, measurement, consolidation and classification principles were consistently applied in all companies to be consolidated in the consolidated financial statements. All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between companies included in the consolidated financial statements are eliminated in full as part of consolidation. In consolidation processes affecting profit or loss, income tax effects were taken into account and deferred taxes were recognized.

Capital of the subsidiaries is consolidated in accordance with the purchase method. The cost of a business combination is then allocated to the identifiable assets acquired and identifiable liabilities assumed and contingent liabilities assumed in accordance with their fair values at the acquisition date. Deferred taxes are recognized on hidden assets and liabilities recognized in the context of the initial consolidation, to the extent that this recognition was not implemented on a tax basis. In subsequent periods, recognized hidden assets and liabilities are adjusted in line with the treatment of the corresponding assets and liabilities. The cost of a company acquisition is measured as the total of consideration transferred, measured by the fair value at the time of acquisition, and the non-controlling interest in the acquired company. Costs incurred as part of a company acquisition are recognized as an expense. The cost of a company acquisition is measured as the total of consideration transferred, measured by the fair value at the time of acquisition, and the non-controlling interest in the acquired company. Costs incurred as part of a company acquisition are recognized as an expense.

If the cost of the business combination exceeds the net fair value of identifiable assets, liabilities and contingent liabilities, this is recognized as goodwill. If the fair value of the net assets acquired exceeds the total consideration assumed, the PVA TePla Group reassesses whether all assets acquired and all liabilities assumed were identified correctly.

Furthermore, the PVA TePla Group reviews the procedure used to calculate the amounts. If, after remeasurement, the fair value of the net assets acquired still exceeds the total consideration assumed, the difference is recognized through profit or loss in the Group income statement.

Non-controlling interests in the acquired company are measured by the acquired company's corresponding share of identifiable net assets and reported under the separate "non-controlling interests" item in the PVA TePla Group's consolidated balance sheet. In subsequent periods, non-controlling interests are updated, taking account of ongoing profits and losses, distributions and currency differences. Transactions with non-controlling interests that do not result in a loss of control are recognized through other comprehensive income as equity transactions.

Currency Conversion

The items recognized in the financial statements of the individual PVA TePla AG subsidiaries are measured on the basis of the respective functional currency. The reporting currency of the consolidated financial statements of the PVA TePla Group is the euro (EUR).

Transactions in foreign currency are converted into the corresponding functional currency at the rate on the date of the transaction. Monetary assets and liabilities in foreign currency are translated at the exchange rate on the reporting date. Exchange differences are taken into consideration in profit or loss and recognized in the consolidated income statement under other operating expenses or other operating income. Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

The financial statements of the companies included in the scope of consolidation, whose functional currency is different from the Group's reporting currency (euro), are translated as follows - assets and liabilities are translated at the prevailing rate on the reporting date (middle rate), equity at historical rates and income and expenses at the average rate for the year. Exchange differences resulting from changes to exchange rates across fiscal years are recognized in equity under the "other reserves" item.

Most important exchange rates against the euro

EUR = 1	Average exchange rate		Exchange rate on the balance sheet date	
	2020	2019	Dec. 31. 2020	Dec. 31. 2019
USA (USD)	1.14128	1.11960	1.22710	1.12340
China (CNY)	7.87084	7.73388	8.02250	7.82050
Singapore (SGD)	1.57357	1.52721	1.62180	1.51110
Taiwan (TWD)	33.59800	34.59500	34.28800	33.54000

D. MANAGEMENT JUDGMENTS AND ESTIMATE UNCERTAINTIES

For the PVA TePla Group's consolidated financial statements, it is necessary to make a limited number of estimates and assumptions which have an impact on the recognition, amount and the presentation of recognized assets and liabilities, income and expenses and contingent liabilities. Due to the currently unforeseen global consequences of the corona pandemic, all these management judgments and estimates are subject to increased uncertainty.

In particular, material management judgments and estimate uncertainties relate to the measurement of goodwill (see Note 8), impairment losses on receivables and contract assets (see Note 12 and Note 19), the recognition and measurement of deferred tax assets on loss carry-forwards (see Note 13) and the amount and probability of pension provisions (see Note 15) and other provisions (see Note 16) incl. the measurement of long-term compensation components analogous to „cash-settled share-based payment“ within the meaning of IFRS 2 (see Note 22.). Management bases its assessment of these judgments and estimate uncertainties on past experience, estimates from experts (e.g. lawyers, rating agencies and associations) and the results of carefully weighing up different scenarios.

Actual events and developments that lie beyond the control of management may deviate considerably from the expressed developments and assumptions. For this reason, the PVA TePla Group examines the estimates and assumptions made on an ongoing basis. Changes in estimates are recognized in profit or loss as soon as better information is available.

When recognizing sales, material judgments are made when determining separate performance obligations, when determining the date on which the performance obligations are met, when determining the percentage of completion with projects to be realized over time, when determining significant financing components and when allocating the transaction price to separate performance obligations:

- Determining whether a performance commitment is to be considered a separate performance obligation (e.g. with installation, training, maintenance, service and guarantees) can in individual cases be associated with not inconsiderable discretionary judgments.
- Depending on the specific facts and circumstances in the individual case, performance obligations resulting from contracts with the PVA TePla Group's customers in connection with producing systems and providing services are recognized either over a period of time as a percentage of work completed (the "POC method") or are recognized for a particular point in time as soon as the goods are delivered or the services are performed. When producing systems for specific customers, a judgment must be made as to whether, in this specific case, an asset is created that has no alternative possible use and, in addition, (in the event of an assumed termination of the contract by the customer) whether there exists a right to payment for the service already provided, including an appropriate profit mark-up, that is enforceable in a court of law.

- With projects to be realized over time, the method that most reliably measures the percentage of work completed must be determined. The PVA TePla Group uses primarily input-based methods to determine revenue generated from producing systems for specific customers, first and foremost “the cost-to-cost method”. The degree of completion is determined as the ratio of the costs incurred as of the reporting date to estimated total costs. In the event of multiple performance obligations, the estimated contract consideration is to be allocated to the identified performance obligations on the basis of the respective relative stand-alone selling prices. Estimating the percentage of completion is based on experience values and is monitored and adjusted on an ongoing basis.
- If the time the service is provided is different from the time of payment, significant financing components must be taken into account when determining the transaction price. When determining whether or not there are any significant financing components in the individual case, all relevant facts and circumstances relating to the case in question must be assessed on the basis of judgment.
- The PVA Group uses other adequate methods to estimate the stand-alone selling prices only if the prices of individual goods and services cannot be directly observed on the market. Only when prices of individual goods and services cannot be directly observed on the market the PVA TePla Group estimates the stand-alone selling prices using other adequate methods. Depending on the specific facts and circumstances in the individual case, the following methods are used: adjusted-market-assessment approach, expected-cost-plus-a-margin approach or (in the case of certain restrictive requirements) the residual method.

When accounting for leases pursuant to IFRS 16 material judgments relate to individual property leases, which include extension options after the end of the basic term (including the subsequent automatically renewing lease terms). When measuring lease liabilities optional lease terms are to be included if it is reasonably certain that these options will be exercised. For more information, refer to the explanations in Note 20.

The management of PVA TePla Group makes estimates on the anticipated impact of the corona pandemic, particularly in determining impairment losses on trade receivables using the expected credit loss model and by testing for impairment on goodwill. In line with the assumptions used here, the corona pandemic is not expected to have a significant impact on the net assets, financial position, and results of operations of the PVA TePla Group.

E. NOTES TO THE CONSOLIDATED INCOME STATEMENT

1. SALES REVENUES

The PVA TePla Group generates its sales revenues principally through the sale of systems. Additional revenue is generated from services and by supplying spare parts (referred to collectively as after-sales service/IP) and services for customers in the Company’s own facilities (contract processing). The normal contract durations and payment conditions of customer contracts of these PVA TePla Group activity areas are shown below, although individual contracts may have different payment conditions.

Activity areas	Contract durations	Payment conditions
Systems	3– 18 months	30-40% when order is received; 50-65% upon delivery; 5-10% upon acceptance
After-sales service/IP	1– 6 weeks	100% upon delivery (e.g. spare parts) or 100% when service is provided
Contract processing	1– 4 weeks	(e.g. contract processing; repairs)

Revenues by activity area [EUR'000]	2020		2019	
		in %		in %
Systems	111,009	81	107,099	80
After-sales/IP	20,657	15	18,783	16
Contract processing	4,222	3	4,325	3
Others	1,148	1	761	1
Total	137,036	100	130,968	100

Revenues by time service is rendered [EUR'000]	2020		2019	
		in %		in %
Realization at a point in time	118,154	86	111,258	85
Realization over a period of time	18,882	14	19,710	15
Total	137,036	100	130,968	100

For more information on the sales breakdown, see segment reporting under Note 18.

Customer-specific system production (POC method) [EUR'000]	Dec. 31, 2020	Dec. 31, 2019
	Revenue from customer-specific system production	7,483
contract costs	-6,452	-16,070
Gains from customer-specific system production	1,031	3,640

There were no significant financing components resulting from contracts with customers in fiscal year 2020 or in the previous period.

Performance obligations not yet fulfilled as of the balance sheet date

[EUR'000]	expected to be fulfilled in ≤ 12 months	expected to be fulfilled in > 12 months
Overall scope of contractual obligations contracted at December 31, 2020, but not yet (fully) fulfilled	105,445	19,510
Overall scope of contractual obligations contracted at December 31, 2019 but not yet (fully) fulfilled	119,844	50,732

Presentation of Significant Accounting Policies

Sales revenues are measured on the basis of the consideration specified in a contract with a customer that the PVA TePla Group expects to receive and realize when the customer obtains control over the agreed goods and services. Control can be transferred at a particular point in time or over a period of time. Sales revenues are recognized without sales tax, taking account of sales deductions such as credit notes, trade discounts and similar. If the time the service is provided and the time of payment is different, significant financing components must be taken into account when determining the transaction price.

The contracts with customers regularly include various performance commitments (products and services), which may be classified as a separate performance obligation and which may subsequently be allocated as part of the contract price. Determining whether a product or service is considered a separate performance obligation may be associated with not inconsiderable discretionary judgments. If several products or services are provided to one customer, either these are specified on a contractual basis in separate individual contracts or combined in a standard contract consisting of several performance obligations. If products or services in separate individual contracts are contracts in close time correlation with a customer, the economic interdependencies are to be combined in a multi-component agreement.

Performance obligations resulting from contracts with the PVA TePla Group's customers and relating to producing systems are recognized over the production time as a percentage of work completed (POC method) only if an asset is created that has no alternative possible use and, in addition (in the event of an assumed termination of the contract by the customer), where there exists a right to payment for the service already provided, including an appropriate profit mark-up, that is enforceable in a court of law. Sales revenues are otherwise recognized for a particular point in time as soon as the goods are delivered or the services are performed, the transfer of risk has taken place and no technical risks or specific opposing contractual regulations exist. Income from services is recognized either at a point in time or over a period of time, depending on the specific facts and circumstances for the case in question.

When using the POC method, sales are recognized over a period of time according to the progress of the service. The work performed, including the share in the result, is reported in sales revenues over the production time. The percentage of work completed for a specific project is determined using the method that most accurately measures the services performed, whereby both input and output methods can be consistently applied to similar performance obligations and in similar circumstances. The PVA TePla Group primarily uses input-based methods to determine revenue generated from longer-term production of systems for specific customers, primarily the cost-to-cost method. The degree of completion is determined as the ratio of the costs incurred as of the reporting date to estimated total costs. The ratio of these two figures produces the share of project revenues to be realized on the reporting date (cumulative work). Sales revenues recognized using the POC method are reported either under the balance sheet items "contract assets" or "contract receivables". If the cumulative work (contract costs including share of profits) exceeds the advance payments in an individual case, the construction contracts are recognized as assets under "contract assets". If the net amount remains negative after deducting the advance payments, this is recognized in the balance sheet item "contract liabilities (POC method)". Advance payment invoices that have already been issued and due (but still not paid) are recognized under "contract assets" and "contract liabilities". Anticipated losses from contracts are taken into account on the basis of identifiable risks and are immediately included in the order result in full. Contract revenue includes revenue from contracts and, in accordance with IFRS 15, contract modifications, i.e. contract amendments and additions. Contract assets and contract liabilities are reported under current assets or current liabilities, as the PVA TePla Group generally realizes these within one year.

2. RESEARCH AND DEVELOPMENT EXPENSES

The PVA TePla Group is engaged in high-tech mechanical engineering in single unit and small series production. The continued development of products is closely linked to research into new procedures and processes and the development of new product features. The activities of the two divisions are closely interconnected on an iterative basis, so that the research and development activities generally cannot be reliably separated from each other. In addition, in light of the uncertainties in future market trends an estimate of probable benefits is too unreliable. In this context, the PVA TePla Group does not capitalize any development costs, so that the research and development expenses are recognized in the periods in which they are incurred.

Renowned research and development institutions work with the PVA TePla Group to a minor extent under cooperation agreements (service contracts). Provided adequate indications as to the usability of the development results are available and the other IAS 38 conditions are met, intangible assets are capitalized.

Research and development expenses reported on the income statement amount to EUR 4,593 thousand in fiscal 2020 (previous year: EUR 4,753 thousand). The related income from research and development grants were recognized in other operating income at a level of EUR 762 thousand (previous year: EUR 1,025 thousand).

3. OTHER OPERATING INCOME / OTHER OPERATING EXPENSES

[EUR'000]	2020	2019
Foreign exchange gains	1,653	715
Grants for research and development projects	762	1,025
Income from the reversal of specific bad debt allowances on receivables	682	103
Remuneration in kind (e.g. company car)	312	262
Insurance compensation	72	20
Schadensersatzleistungen	55	-
Income from the reversal of provisions	28	276
Income from the disposal of fixed assets	7	19
Miscellaneous operating income	368	768
Other operating income	3,939	3,085

[EUR'000]	2020	2019
Foreign exchange losses	-1,865	-895
Expenses from the recognition of valuation allowances	-114	-820
Expenses from the disposal of fixed assets	-8	-8
Loss from deconsolidation	-	-231
Miscellaneous other operating expenses	-707	-890
Other operating expenses	-2,694	-2,844

Presentation of Significant Accounting Policies

All income generated as part of operating activities but without relation to the PVA TePla Group's core business is recognized under other operating income. Other operating income is measured at the fair value of the consideration received/to be received less any rebates and other similar deductions.

All expenses that cannot be clearly allocated to either production, administration or sales are recognized by the PVA TePla Group under other operating expenses. This also includes expenses that are associated only indirectly with ordinary business, provided there is no requirement to allocate these to financing.

4. FINANCIAL RESULT

[EUR'000]	2020	2019
Income from derivative financial instruments	-	115
Other interest and income	7	11
Finance revenues	7	126

[EUR'000]	2020	2019
Expenses from derivative financial instruments	-33	-138
Interest expense for pension provisions	-154	-295
Interest expenses for loans from banks	-179	-133
Arrangement and commitment fees „New Club Deal“	-252	-
Interest expenses for lease liabilities	-61	-36
Other interest and similar expenses	-1	-10
Finance expenses	-680	-612

Presentation of Significant Accounting Policies

The PVA TePla Group recognizes all income and expenses that result from financing activities and are not part of operating activities under finance income/finance costs. Finance income and finance costs are generally recognized through profit or loss on an accrual basis using the effective interest method.

5. INCOME TAXES

[EUR'000]	2020	2019
Current tax expenses	-3,295	-1,917
Deferred tax expenses	-3,281	-1,487
Previous period tax charges (-)/income	-14	-430
Deferred tax expense (-)/income (+)	-1,822	-2,190
Credit from tax loss carry-forwards	-1,121	-2,818
Impairment on capitalized tax assets	0	0
Other deferred taxes	-701	628
Income taxes	-5,117	-4,107

Deferred taxes of EUR 116 thousand (previous year: EUR 614 thousand) were recognized directly in equity without affecting the consolidated income statement. These are fully attributable to effects recognized in equity for pension provisions.

The difference between the expected income tax expense anticipated and the figure actually recognized is shown in the reconciliation below. Anticipated tax expenses were calculated by multiplying the tax rate for fiscal year 2020 of 29% (previous year: 29%) by earnings before tax. This tax rate is a combined income tax rate comprising the standard corporation tax of 15% (previous year: 15%) plus a solidarity surcharge of 5.5% (previous year: 5.5%) and an effective trade tax rate of 13.4% (previous year: 13.4%). In fiscal year 2020, the country-specific income tax rates used for foreign companies have a range between 11.0% and 28.0% (previous year: 17.0% and 26.1%).

[in TEUR]	2020	%	2019	%
Net result before tax	17,846		11,820	
Expected tax expenses	-5,175	-29	-3,428	-29
Changes in tax rates for foreign companies	0	0	7	0
Tax payable abroad	77	0	-38	0
Changes in tax rate differences from different trade tax rates	1	0	-4	0
Increase in taxes due to non-deductible expenses	-221	-1	-463	-4
Tax reductions due to tax-free income	89	0	86	1
Effects concerning deferred tax assets from tax loss carry-forwards	495	3	434	4
Value adjustments on deferred tax assets	0	0	-435	-4
Tax back payments (-) / tax refunds (+) for previous years	19	0	-430	-4
Other tax effects	-402	-2	166	1
Current tax expenses	-5,117	-29	-4,107	-35

Deferred taxes were measured after they had been incurred using the tax rate stated above or country-specific tax rates for companies outside Germany. Deferred taxes from differences in tax rates for foreign companies are due to the fact that PVA TePla Group subsidiaries outside Germany are subject to different tax rates than companies in Germany.

Presentation of Significant Accounting Policies

Current tax assets and tax liabilities are measured as the amount expected to be recovered from or paid to the tax authorities. The amount is calculated based on the tax rates and tax laws applicable at the end of the reporting period or soon to apply in the countries where the PVA TePla Group operates and generates taxable income. Current taxes relating to items reported directly in equity are not recognized on the consolidated income statement but in equity. The management regularly assesses individual tax issues in order to determine whether, in view of prevailing tax regulations, there is any scope for interpretation. If it is likely that the amounts reported in the tax declarations will be not realized (uncertain tax items), tax provisions are established. The amount is determined from the best possible estimate of the expected tax payment (expected value or most likely value of the tax uncertainty).

For more information on recognizing deferred taxes, see the explanations on significant accounting policies in Note 13.

Other taxes, e.g. transport taxes or taxes on assets and capital, are recognized as operating expenses.

As in the previous year, in fiscal year 2020 no options were granted which would entitle employees, Management or Supervisory Board members to purchase shares in PVA TePla AG. As a result, there were no dilution effects in regard to earnings per share as of December 31, 2020 in comparison to December 31, 2019.

Presentation of Significant Accounting Policies

Basic earnings per share are calculating by dividing the profit or loss attributable to holders of ordinary shares in PVA TePla AG by the weighted average number of ordinary shares in circulation during the fiscal year.

In the calculation of the diluted earnings per share, the earnings attributable to the bearers of ordinary shares in PVA TePla AG are divided by the weighted, average number of ordinary shares outstanding during the fiscal year and by the weighted average number of ordinary shares which would result from the conversion of all potential ordinary shares with a dilutive effect for ordinary shares.

6. EARNINGS PER SHARE

	2020	2019
Numerator [in EUR ']: Consolidated net result for the year before minority interests	12,729	7,713
Denominator [in shares]: Weighted average number of no-par shares outstanding	21,749,988	21,749,988
Earnings per share [EUR]: (Basic / diluted)	0.59	0.35



7. SUPPLEMENTARY INFORMATION ABOUT THE TYPE OF EXPENSES

Total Cost of Materials

[EUR'000]	2020	2019
Cost of raw materials, consumables and supplies and of goods purchased and held for resales	-54,434	-74,601
Cost of purchased services	-4,668	-6,240
Total cost of materials	-59,102	-80,841

Cost of materials is included in the cost of sales. The materials ratio (cost of materials to total sales) amounted to 43.1% in fiscal year 2020, compared to 61.7% in the previous year.

Total Personnel Expenses

[EUR'000]	2020	2019
Wages and salaries	-36,500	-34,004
Social charges	-6,653	-6,054
Total personnel expenses	-43,152	-40,058

As a proportion of sales, personnel expenses increased in fiscal year 2020 to 31.5% after 30.6% in the previous year. The absolute increase is largely due to new staff as well as increased remuneration of members of the Management Board. Social security contributions in fiscal year 2020 include pension expenses of EUR 300 thousand (previous year: EUR 291 thousand).

Mitarbeiterzahl nach Funktionsbereichen (Jahresdurchschnittswerte)	2020	2019
Production and service	296	269
Engineering, research and development	94	87
Administration	63	63
Sales	87	82
Total	539	501

In fiscal 2020, there were also an average of 28 apprentices and trainees (previous year: 21) and 15 marginal part-time employees, employees on parental leave and those with long-term illnesses (previous year: 14).

Depreciation, Amortization and Impairment

[EUR'000]	2020	2019
Amortization of intangible assets	-651	-655
Impairment on other intangible assets of which: goodwill impairment	-	-
Depreciation on rights	-849	-700
Depreciation of property, plant and equipment	-2,730	-2,552
Impairment of property, plant and equipment	-	-
Depreciation, amortization and impairment	-4,230	-3,907

F. NOTES TO THE CONSOLIDATED BALANCE SHEET

8. INTANGIBLE ASSETS

[EUR'000]	Goodwill	Other intangible assets	Total
Acquisition and manufacturing costs			
Jan. 1, 2019	12,748	8,459	21,207
Exchange differences	-	2	2
Changes to the companies included in consolidation	-	727	727
Additions	-	326	326
Disposals	-	-208	-208
Transfers	-	-	-
Dec. 31, 2019	12,748	9,306	22,054
Jan. 1, 2020	12,748	9,306	22,054
Exchange differences	-	-6	-6
Changes to the companies included in consolidation	-	56	56
Additions	16	206	222
Disposals	-	-33	-33
Transfers	-	1	1
Dec. 31, 2020	12,764	9,530	22,294
Accumulated amortization, depreciation and write-downs			
Jan. 1, 2019	4,850	5,285	10,135
Exchange differences	-	1	1
Additions	-	655	655
Disposals	-	-208	-208
Transfers	-	-	-
Dec. 31, 2019	4,850	5,733	10,583
Jan. 1, 2020	4,850	5,733	10,583
Exchange differences	-	-4	-4
Additions	-	651	651
Disposals	-	-17	-17
Transfers	-	-	-
Dec. 31, 2020	4,850	6,363	11,213
Net carrying amounts			
Dec. 31, 2019	7,898	3,573	11,471
Dec. 31, 2020	7,914	3,167	11,081

Intangible assets of the PVA TePla Group primarily consist of the proportion of goodwill arising in connection with company acquisitions, which represents the excess of the purchase price over the fair value of the net assets acquired, and of other intangible assets, which primarily comprise software.

To the extent they are finite, the useful life of any other recognized intangible assets is roughly 54 months.

Goodwill is tested at the level of the following listed smallest cash-generating units (CGU) within the PVA TePla Group and thus at the lowest level at which goodwill is monitored for internal management purposes.

Cash Generating Unit (CGU) [EUR'000]	Dec. 31, 2020	Dec. 31, 2019
PVA TePla Analytical Systems GmbH, Westhausen	4,831	4,831
PVA Crystal Growing Systems GmbH, Wettenberg	2,734	2,734
PVA Metrology & Plasma Solutions GmbH, Wettenberg	193	193
PVA SPA Software Entwicklungs GmbH, Coburg	90	90
PVA Industrial Vacuum Systems GmbH, Wettenberg	50	50
OKOS Solutions, LLC, Manassas, USA	16	-
Goodwill	7,914	7,898

In the Semiconductor Systems division goodwill is tested separately for five cash-generating units. In addition to PVA TePla Analytical Systems GmbH based in Westhausen, PVA Crystal Growing Systems GmbH based in Wettenberg has also been treated as an independent cash-generating unit since 2015. The goodwill of PVA TePla AG was transferred to this company after leasing the business operations. PVA Metrology & Plasma Solutions GmbH, Wettenberg, has also been treated as an independent cash-generating unit since 2015.

The goodwill of Munich Metrology GmbH was transferred to this company after the merger in the 2015 fiscal year. In fiscal year 2018, the goodwill of PVA SPA Software Entwicklungs GmbH based in Coburg was added and has since been treated as an independent cash-generating unit. OKOS Solutions, LLC, acquired in fiscal 2020, is also an independent cash generating unit of the Semiconductor Systems division.

In the Industrial Systems division, there is only one separate cash-generating unit, PVA Industrial Vacuum Systems GmbH based in Wettenberg. The goodwill of PlaTeG GmbH was transferred to this company after its merger in the 2015 fiscal year.

The recoverable amount of each cash generating unit is calculated as its value in use using the discounted cash flow method. Key assumptions include assumptions regarding the development of incoming orders, sales, margins, investments and personnel. The values of these parameters are based on past experience as well as foreseeable future developments. The underlying assumptions of key planning indicators (such as cash flows, sales growth, discount rates) reflect past experience and are set according to external information sources. Planning is based on a financial planning horizon of three years. For an impairment test, growth of 0.5% has been set for cash flow for the following period (previous year: 1%). The underlying USD/EUR exchange rate is 1.1241 (previous year: 1.1549). Cash flows are discounted using the weighted cost of capital approach (WACC approach) while taking into account specific tax effects of the companies. The parameters market risk and beta have the largest effect on the calculation of impairment. The cost of capital for the units under review was roughly 9.6% (previous year: approx. 12%).

The following assumptions were made for cash generating units with significant goodwill:

For the Analytical Systems business unit, we expect average geometric sales growth (CAGR determination) of 14% (previous year: 9%) (0.5% in perpetual annuity) in the next three years due to the continued high level of investments in the semiconductor industry and the further effects of sales activities. In the Crystal Growing Systems business unit, we are anticipating a considerably increased level of sales for 2022 and 2023. This brings the perpetual annuity back down to the current level.

The goodwill test has shown no requirement for recognizing impairment losses, either in fiscal year 2020 or in the previous year. As part of a sensitivity analysis for the cash-generating units (CGUs) of the PVA TePla Group to which goodwill was allocated, an increase of the discount rate by one percentage point, a reduction of the long-term growth rate by 0.5 percentage points and a 25% reduction of the cash flow was assumed. None of the changes to the parameters described, either in isolation or in combination, results in an impairment requirement for a cash-generating unit.

As the corona pandemic is developing on an ongoing basis, the forecasts in fiscal 2020 are subject to not inconsiderable uncertainty regarding the length and extent of the impact on cash flow. The management prepared the underlying estimates and assumptions on the basis of the best available information and deployed a scenario which assumes that the economic impact of the current pandemic will not be of a long-term nature.

Presentation of Significant Accounting Policies

Individually acquired intangible assets are measured at cost on initial recognition. The costs of intangible assets acquired as part of a business combination correspond to the fair value at the time of acquisition. For internally generated intangible assets to be capitalized, the asset must be expected to provide a future benefit to the PVA TePla Group and it must be possible to reliably calculate the costs.

Development projects are therefore capitalized only if the requirements set out in IAS 38.57 are cumulatively met. Research and development costs that cannot be capitalized are recognized through profit or loss in the period in which they are incurred. If an internally generated intangible asset meets the requirements for recognition, it is measured at production cost at initial recognition. Production costs include all costs directly attributable to the production process and an appropriate share of general production-related overhead costs. Internally generated intangible assets that are not yet complete are subject to an annual impairment test.

For the purposes of subsequent measurement of intangible assets, a distinction is drawn in IFRS between intangible assets with finite and indefinite useful lives. The consolidated financial statements of the PVA TePla Group include only intangible assets with finite useful lives – with the exception of goodwill. They are recognized at cost less any accumulated depreciation and any accumulated impairment losses. Intangible assets with determinable useful lives are amortized on a straightline basis over the contractual or estimated useful life. Amortization of intangible assets is allocated to the functional areas utilizing the assets concerned. The useful lives are reviewed annually and, if necessary, adjusted to meet future expectations. The useful lives of intangible assets recognized by the PVA TePla Group range from three to eight years.

Purchased (derivative) goodwill resulting from the capital consolidation of subsidiaries is recognized as a separate asset item in the PVA TePla Group's consolidated balance sheet. Internally generated (original) goodwill, on the other hand, may not be capitalized.

Impairment of Goodwill

Goodwill in the PVA TePla Group is tested for impairment once a year (in the fourth quarter). Impairment testing is also performed if there are any circumstances indicating that the goodwill might be impaired. The value of goodwill is reviewed using a single-stage process in the cash-generating unit (CGU) to which the goodwill was allocated. This impairment test compares the carrying amount of a cash-generating unit with the recoverable amount. If the carrying amount is higher than the recoverable amount, the recoverable amount is written down through profit or loss. The impairment loss is allocated to goodwill and higher amounts will, in accordance with specific restrictions, be distributed proportionately between the assets of the cash-generating unit. Impairment losses for goodwill cannot be reversed at a later date if the reasons for impairment in previous years cease to apply.

The recoverable amount of each cash generating unit is calculated as its value in use using the discounted cash flow method. For its impairment assessments the PVA TePla Group uses detailed budget and forecast calculations for its cash generating units based on the financial budgets approved by management and also used for internal purposes. Generally such budget and forecast calculations cover a detailed planning period of three years. From the fourth year, a long-term growth rate is determined and used to forecast future cash flows. The discount rate is based on the segment-specific weighted average cost of capital of the companies (WACC approach) and contains a reasonable risk premium.

Impairment of Other Intangible Assets, Property, Plant and Equipment and Rights of Use

For rights of use, property, plant and equipment and intangible assets with a finite useful life, the PVA TePla Group makes a review at each reporting date to assess whether there are indications of impairment. If facts or changed circumstances indicate that the carrying amount of an asset may not be recoverable, the asset is subjected to an impairment test. In addition, an impairment test is conducted at the end of each fiscal year for intangible assets with useful lives that cannot be determined or that have not yet been used for operational purposes.

This impairment test compares the carrying amount of the asset to be tested with the recoverable amount. The recoverable amount is the higher of fair value less the costs to sell and the value in use of an asset. Fair value less costs to sell is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal. Value in use is the present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life.

The recoverable amount is calculated for each asset on an individual basis or, if this is not possible, for the cash-generating unit (CGU) to which the asset is allocated. If the carrying amount is higher than the recoverable amount, the recoverable amount is written down through profit or loss. Impairment losses are recognized in the consolidated income statement under "other operating expenses". If the conditions for an impairment loss on property, plant and equipment or intangible assets with a finite useful life recognized in previous years no longer apply, the impairment is reversed through profit or loss up to a maximum of amortized cost. Reversals are recognized in the consolidated income statement under "other operating income".

9. PROPERTY, PLANT AND EQUIPMENT

[EUR'000]	Land	Plant and machinery	Equipment, fixtures and fittings	Assets under construction	Total
Acquisition and manufacturing costs					
Jan. 1, 2019	33,463	8,789	7,917	400	50,569
Exchange differences	2	31	-	-	33
Changes to the companies included in consolidation	-	342	92	-	434
Additions	-	1,434	1,609	92	3,136
Disposals	-	-14	-908	-	-922
Transfers	-	403	-	-403	-
Dec. 31, 2019	33,465	10,985	8,710	89	53,249
Jan. 1, 2020	33,465	10,985	8,710	89	53,249
Exchange differences	-8	-138	-33	-	-179
Changes to the companies included in consolidation	-	9	8	-	17
Additions	25	59	1,426	1	1,511
Disposals	-	-196	-828	-	-1,024
Transfers	-	-	88	-89	-1
Dec. 31, 2020	33,482	10,719	9,371	1	53,573
Accumulated amortization, depreciation and write-downs					
Jan. 1, 2019	11,447	5,499	4,042	-	20,988
Exchange differences	-	28	2	-	32
Additions	941	738	873	-	2,552
Disposals	-	-6	-502	-	-508
Transfers	-	-	-	-	-
Dec. 31, 2019	12,390	6,259	4,415	-	23,064
Jan. 1, 2020	12,390	6,259	4,415	-	23,064
Exchange differences	-8	-134	-11	-	-153
Additions	924	797	1,009	-	2,730
Disposals	-	-154	-510	-	-664
Transfers	-	-	-	-	-
Dec. 31, 2020	13,306	6,768	4,903	-	24,977
Net carrying amounts					
Dec. 31, 2019	21,075	4,726	4,295	89	30,185
Dec. 31, 2020	20,176	3,951	4,468	1	28,596

The PVA TePla Group has received financial incentives from various public authorities under government business development programs, including funding for the construction of production facilities. Investment subsidies and tax-free investment contributions received are deducted from the carrying amount of the relevant assets.

Land has been encumbered with a charge in the amount of EUR 18,000 thousand to secure the PVA TePla AG loans for financing new facilities in Wettenberg. One of these loans was completely repaid in fiscal 2020 and is thus recognized at EUR 0 thousand on the reporting date of December 31, 2020 (previous year: EUR 2,333 thousand). As in the previous year, the second loan was not drawn as of the reporting date of December 31, 2020 (EUR 2,000 thousand).

There are no other material restrictions on ownership or title in respect of the property, plant and equipment reported.

No write-down losses on property, plant and equipment were recognized in fiscal year 2020 or in the previous year.

Presentation of Significant Accounting Policies

Property, plant and equipment are carried at historical cost less any accumulated straight-line depreciation and any accumulated write-down losses. Cost in this context includes expenses directly attributable to the acquisition. Investment subsidies and tax-free investment contributions received are deducted from the carrying amount of the relevant assets. If the costs of property, plant and equipment assets cover a longer period of time, interest incurred on loans before completion is capitalized as an element of cost in accordance with the requirements of IAS 23. The costs of property, plant and equipment acquired as part of business combinations correspond to the fair value at the time of acquisition. Subsequent costs are capitalized only if it is probable that this will provide a future benefit to the PVA TePla Group and the costs can be reliably calculated.

Depreciation is recognized on a straight-line basis over the expected useful life of the asset; in the case of tenants' fixtures or leasehold improvements, if appropriate, in accordance with the shorter term of the lease. Depreciation of property, plant and equipment is allocated to the functional areas utilizing the respective assets. Depreciation is conducted according to the following economic useful lives:

	Years
Buildings	25 - 33
Plant and machinery	3 - 20
Other plant and equipment, furniture and fittings	2 - 14

Expenditure for maintenance and repairs is expensed in the period in which it is incurred. The cost and the related cumulative depreciation are derecognized when property, plant and equipment are scrapped or disposed of, with any book gains or losses recognized in the income statement under "other operating income" or "other operating expenses".

Write-downs of Property, Plant and Equipment

For more information on the write-downs of property, plant and equipment, see the explanations on significant accounting policies in Note 8.

10. NON-CURRENT FINANCIAL ASSETS

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Financial assets, current (gross value)	2,181	5,021
less write-downs	-1,788	-2,007
Non-current financial assets	393	3,014

Non-current financial assets essentially comprise non-current trade receivables from system sales as part of the ordinary course of business. Likewise, non-current financial assets also include trade receivables that are either already due or to be due shortly if, as expected, their realization is not expected within twelve months of the balance sheet date and time deposits with a remaining term over twelve months and interests in associates.

[EUR'000]	2020	2019
Write-downs on January 1	2,007	1,907
Currency exchange differences	0	0
Addition	0	100
Utilization	0	0
Release	-219	0
Write-downs on December 31	1,788	2,007

The release of impairments totaling EUR 219 thousand (previous year: addition of EUR 100 thousand) recognized in fiscal year 2020 is due to payments received in connection with impaired non-current receivables.

Presentation of Significant Accounting Policies

Financial assets are based on a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. In addition to derivative financial instruments, financial assets of the PVA TePla Group comprise primarily cash and cash equivalents as well as current and non-current trade receivables which result directly from its operating activities. Financial assets are recognized in the consolidated balance sheet if the PVA TePla Group has a contractual right to receive cash or other financial assets from a third party.

At initial recognition, a financial asset is allocated to one of the following categories and measured:

- Amortized cost measurement;
- Investments in debt instruments measured at fair value with changes in other comprehensive income;
- Equity investments measured at fair value with changes in other comprehensive income; or
- Fair value measurement through profit or loss.

Classification is based on the company's business model for managing the financial assets and the contractual cash flow characteristics. If the financial asset is held within a business model whose objective is to collect contractual cash flows and the contractual terms result in cash flows on specific dates that are solely repayments and interest on the principal amount outstanding, it is measured at amortized cost.

The financial assets held by the PVA TePla Group are mainly non-derivative financial assets with contractual payments representing solely interest and repayments on the outstanding nominal amount and which are held with the objective of collecting the contractually agreed cash flows. Accordingly, these financial assets, which relate primarily to trade receivables and cash and cash equivalents, are allocated to the "amortized cost measurement" category. Write-downs for debt instruments measured at amortized cost are recognized at the amount equal to the expected credit loss. They are adjusted at each reporting date to take into consideration changes in the financial instrument's credit risk since initial recognition and are generally measured at an amount equal to the lifetime expected credit loss.

If there are objective substantial indications for impairment of a financial asset, it is tested individually for impairment. Such indications for the existence of impairment include worsened creditworthiness of a debtor and the resulting payment interruptions or a threat of insolvency. For finance receivables and other receivables, the expected credit loss is determined on the basis of defaults expected in the next twelve month or in the remaining term. A review is carried out on each reporting date to assess whether the credit risk has increased significantly. The credit risk assessment is based on quantitative and qualitative information, such as information on credit default swaps, past experience and forward-looking assumptions. Forward-looking assumptions comprise sector and country-specific expectations on how credit risk will develop.

The following information and expectations, among other indications, may suggest a significant increase in the credit risk:

- Significant change in the financial instrument's internal or external credit rating;
- An adverse change in business, financial or economic conditions that has a significant impact on the customer's creditworthiness;
- Indications that a customer is facing considerable financial difficulties; or
- Failure to observe payment terms.

Trade receivables, on the other hand, use a simplified model to recognize the expected credit loss, based on an impairment matrix. For more information, refer to the explanations under Note 12.

Derivative Financial Instruments

The PVA TePla Group occasionally enters into forward exchange contracts to hedge exchange rate risks in connection with sales in foreign currencies (exchange rate hedging). Interest rate hedges are also concluded to hedge interest rate risks for financing investments in new buildings. This kind of derivatives is measured at fair value, both on initial recognition and on subsequent measurement. The changes resulting from this are recognized in profit or loss. The PVA TePla Group does not apply the option to designate a hedging relationship ("hedge accounting").

Under exchange rate hedging, the measurement effects resulting from changes to exchange rates are recognized at the fair value of the derivative under other operating expenses or other operating income. Conversely, the corresponding changes in the market value of interest rate hedges are reported through profit or loss in the financial result ("finance income" or "finance costs"). All derivative financial instruments with a positive market value are recognized on the consolidated balance sheet under "other receivables" and those with a negative market value are reported under "other liabilities" (in each case as current).

Fair Value Measurement

The PVA TePla Group measures certain financial instruments at fair value as of the end of each reporting period. The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In measuring fair value it is assumed that the transaction in which the asset is sold or the liability is transferred takes place either on the principal market for the asset or liability, or the most advantageous market for the asset or liability if there is no principal market.

The PVA TePla Group applies measurement methods that are appropriate in the circumstances and for which there are sufficient data to measure fair value. In doing so, the use of relevant, observable inputs is maximized and that of unobservable inputs is minimized. All assets and liabilities for which the fair value has been calculated or reported in the consolidated financial statements are assigned to the following levels of the measurement hierarchy based on the lowest input factor that is material overall for measurement:

- *Level 1:* Quoted prices (unadjusted) in active markets for identical assets or liabilities on the measurement date
- *Level 2:* Measurement method, with which the lowest input factor material for measurement is directly or indirectly observable on the market
- *Level 3:* Measurement method, with which the lowest input factor material for measurement is not directly or indirectly observable on the market.

11. INVENTORIES

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Raw materials and operating supplies	20,417	19,351
Work in progress	51,905	50,694
Finished products and goods	1,722	512
Gross value	74,044	70,557
less write-downs	-6,417	-5,340
Inventories	67,627	65,217

In fiscal year 2020, changes of impairment of EUR -1,078 thousand (previous year: EUR -2,686 thousand) were recognized in the income statement.

Presentation of Significant Accounting Policies

Inventories are recognized at cost in accordance with the weighted average cost method or net realizable value, whichever is lower. In accordance with IAS 2, cost includes not only directly attributable costs, but also production and material overheads as well as write-downs. Fixed overheads are taken into account on the basis of normal capacity utilization of the production facilities. The cost of idle production capacity is recognized in the consolidated income statement under cost of sales. Write-downs are charged on inventories when their costs exceed the expected net realizable value. The net realizable value is the expected disposal proceeds less any costs which are incurred until the sale.

12. TRADE AND OTHER RECEIVABLES AND CONTRACT ASSETS

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Trade receivables concerning product sales and services	14,080	14,645
Payments in advance	2,929	4,034
Other current receivables	8,001	9,474
Contract assets	7,674	10,458
Gross value	32,684	38,611
less write-downs	-208	-776
Trade and other receivables and contract assets	32,476	37,835

Accounts receivable are not interest-bearing and are generally due within 30 to 90 days.

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Contract costs incurred incl. share of profit (POC method)	4,661	15,507
less advance payments received	-2,475	-8,336
Subtotal	2,186	7,170
Contract assets (without POC method)	1,244	-
Unconditional payment obligations (advance payment invoices)	4,244	3,287
Contract assets	7,674	10,458

[EUR'000]	2020	2019
Write-downs on January 1	-776	-360
Addition	-114	-720
Utilization	0	+188
Release	+682	+116
Write-downs on December 31	-208	-776

Presentation of Significant Accounting Policies

Trade receivables are carried at the fair value of the consideration provided (transaction price) from the time they were incurred. Trade receivables are not discounted as they generally do not contain any significant financing components and are usually due within one year.

Systems produced for specific customers to be recognized over a period of time using the POC method and for which the contract costs incurred including the share of profits exceed the advance payments are recognized under contract assets.

Trade receivables and contract assets are subsequently accounted for at amortized cost (less impairment losses). The PVA TePla Group uses a simplified method for calculating expected credit losses in order to determine impairment using the expected credit loss model. The impairment is then calculated using an impairment matrix based on past experience with credit losses and adjusted for future-oriented factors specific to the borrower and the economic conditions. The default risks for credit impaired trade receivables and contract assets are subject to a special review on the basis of the individual case. Indications of credit impairment include primarily significant financial difficulties of the borrower or the likelihood of insolvency. Impairment is recognized using an allowance account through profit or loss in the consolidated income statement. If, in subsequent periods, the reasons for impairment no longer apply, impairment losses are reversed through profit or loss up to a maximum of the original cost. Impairment losses on trade receivables and income from reversals of impairment losses are reported on a net basis and recognized separately in the Group income statement under "impairment from financial assets". Impairment losses on doubtful trade receivables and contract assets integrate customer rating assessments. Should a customer's financial data deteriorate, there can be deviations from the anticipated impairment losses.

13. DEFERRED TAX ASSETS / LIABILITIES

[EUR'000]	Dec. 31, 2020		Dec. 31, 2019	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Non-current assets	43	579	64	679
Inventories	1,021	0	595	11
Trade receivables	0	2,484	0	1,177
Tax loss carry-forwards	658	0	1,834	0
Pension provisions	2,419	0	2,419	0
Other provisions	217	625	114	690
Others	173	170	98	205
Total	4,531	3,858	5,124	2,761
Balance of deferred tax	673		2,363	

Tax loss carry-forwards are reviewed for potential utilization and capitalized using a company-specific tax rate on the basis of a multi-year budget. Provided utilization of loss carry-forwards appears likely for a period of two to five years based on the current budget, loss carry-forwards were reported. As the utilization of the loss carry-forwards within the forecast period is likely, they were classified entirely as recoverable. Loss carry-forwards of EUR 0 thousand (previous year: EUR 3,611 thousand) relate to the German companies and USD 3,418 thousand (previous year: USD 3,729 thousand) for PVA TePla America Inc., Corona/USA. In the previous year, the tax loss carryforwards of the German companies related solely to the parent company PVA TePla AG, Wettenberg and the subsidiary PVA Metrology & Plasma Solutions GmbH, Wettenberg and were entirely capitalized.

No deferred taxes were recognized for differences between the carrying amounts in IFRS individual statements of financial position and in the tax basis of the investments (outside basis differences) as PVA TePla AG is able to control the timing of the reversal of temporary differences and there are no plans to sell investments indefinitely.

Presentation of Significant Accounting Policies

In accordance with IAS 12, deferred taxes are formed for all temporary differences between the carrying amounts in the tax base and those in the IFRS consolidated statement of financial position. If the asset is realized or the liability is settled, temporary differences result in amounts for which tax is payable or deductible. Taxable temporary differences result in a deferred tax liability and tax-deductible temporary differences result in the recognition of deferred tax assets. Deferred taxes are also to be recognized on loss carryforwards, provided these are expected to be used in the future. The deferrals are made at the level of the anticipated tax change or relief in subsequent fiscal years on the basis of the tax rate applicable at the time of realization.

The carrying amount of the deferred tax assets is reviewed each year at the balance sheet date and reduced if it is no longer likely that there is sufficient taxable income to realize the asset in full or in part. In the event of a change in tax rates, the resulting effects on deferred tax assets and liabilities are taken into consideration in profit or loss. In line with IAS 12, deferred tax assets and liabilities are not discounted and are reported in the consolidated balance sheet as non-current assets and liabilities.

Deferred tax assets and deferred tax liabilities are offset if the PVA TePla Group has a legally enforceable claim to set off current tax assets against current tax liabilities and if the deferred tax assets and deferred tax liabilities relate to income taxes levied on the same taxable entity by the same tax authority.

Current and deferred taxes are recognized through profit or loss as an expense, unless they relate to items that were recognized directly in equity. In this case, the taxes are also reported directly in equity.

Estimates regarding deferred taxes on loss carry-forwards are highly dependent on how the taxable entity's earnings perform. This means that the actual amounts reported in future periods may differ from the estimates.

14. FINANCIAL LIABILITIES

[EUR'000]	December 31, 2020			December 31, 2019		
	Current	Non-current	Total	Current	Non-current	Total
Liabilities from leases	1,027	1,700	2,727	639	1,565	2,204
Loans from credit institutes	225	-	225	669	1,666	2,335
Total	1,252	1,700	2,952	1,308	3,231	4,539

PVA TePla AG has a financing facility in the form of a syndicated loan agreement („Club Deal“). The previous club deal expired in 2020 and was renewed in November 2020 for a basic term of five years („new club deal“). For information on expenses under the New Club Deal, see Note 4 „Financing expenses“. The total financing framework amounts to EUR 40.0 million. Of this amount, EUR 20 million can be used as a mixed line (cash and guarantee line). EUR 20.0 million of this line is available for M&A activities and will be converted into an amortizing loan when drawn down. A further EUR 80.0 million is available as a guarantee facility. There are options to increase both the cash lines and the guarantee lines by EUR 40.0 million each.

Interest is according to EURIBOR with a graduated margin based on the debt ratio. As in the previous year, as of December 31, 2020, no cash lines had been drawn and EUR 25.2 million (previous year: EUR 49.7 million) of the guaranteed lines had been utilized as of the reporting date. The syndicated loan agreement defines financial covenants for compliance with standard financial ratios. These financial covenants were met in both fiscal year 2020 and in the previous year.

Further financing facilities of EUR 1.3 million are available as working capital financing. As of the December 31, 2020 reporting date, this facility had not been drawn (previous year: EUR 0.0 million).

The average weighted interest rate for non-current loans from banks was 0.33% (previous year: 0.33%). As a result of scheduled loan repayments, non-current financial liabilities were reduced to EUR 0 thousand (previous year: EUR 1,666 thousand).

The repayment commitments for the non-current loans from banks are thus structured as follows:

[EUR'000]	2020	2019
Due		
Up to 1 month	0	336
Between 1 and 3 months	0	0
Between 3 and 1 year	0	333
Between 1 and 5 years	0	1,666
More than 5 years	0	0

The payment obligations from the leases carried on the balance sheet are structured as follows:

[EUR'000]	2020	2019
Due		
Up to 1 month	91	61
Between 1 and 3 months	180	121
Between 3 and 1 year	756	504
Between 1 and 5 years	1,700	1,357
More than 5 years	0	285

Presentation of Significant Accounting Policies

In addition to derivative finance instruments, financial liabilities of the PVA TePla Group comprise primarily loans from credit institutes, lease liabilities and trade payables. Financial liabilities are recognized in the consolidated balance sheet if the PVA TePla Group has a contractual obligation to transfer cash of other financial assets to a third party. All financial liabilities are measured at fair value upon initial recognition (less any directly attributable transaction costs).

At initial recognition, financial liabilities are classified either at amortized cost or at fair value through profit or loss (FVTPL). A financial liability is classified as FVTPL if it is classified as held for trading, is a derivative or is designated as a derivative on initial recognition.

Financial liabilities at FVTPL are measured at fair value and net gains or losses, including interest expenses, are recognized in profit or loss. In subsequent measurements, other financial liabilities are measured at amortized cost using the effective interest method. In particular these include trade payables, which are generally not interest-bearing and are due within 30 to 60 days. Interest expenses and currency translation differences are recognized in profit or loss. Gains or losses from derecognition are also recognized in profit or loss.

Financial liabilities are derecognized if the underlying obligation relating to the liability is settled, canceled or expires. Gains or losses from derecognition are recognized in profit or loss.

For more information on lease liabilities, see the explanations on significant accounting policies in Note 20.

15. PROVISIONS FOR PENSIONS

Provisions for pension obligations are recognized on the basis of pension plans for commitments to pay retirement, invalidity and dependents' benefits. The amount of benefit usually depends on the number of years of service and the salary of the respective employee.

Pension commitments exist at PVA TePla AG, PVA Industrial Vacuum Systems GmbH, PVA Crystal Growing Systems GmbH, PVA SPA Software Entwicklungs GmbH and PVA Vakuum Anlagenbau Jena GmbH, all based in Germany. These comprise exclusively old commitments. New pension commitments are no longer granted. There are no pension obligations abroad. No material plan assets exist to cover future pension obligations within the PVA TePla Group.

The measurement of pension obligations is supported by actuarial reports. Biometric parameters have been calculated on the basis of the 2018 G mortality tables issued by Professor Dr. Klaus Heubeck. The resulting residual risks from accounting pension obligations are related to risks from the change in actuarial parameters, which are shown in the table below. The most significant change risk relates to interest rates.

[in %]	Dec. 31, 2020	Dec. 31, 2019
Income trend	3.00	3.00
Pension trend	1.25	1.25
Staff turnover	1.50	1.50
Interest rate	0.63% – 0.95%	0.78% - 1.00%

[EUR'000]	2020	2019
Present value of future pensions on Jan. 1	17,223	15,195
Additions through company acquisition	0	0
Current service expense for services provided by employees in the fiscal year	140	147
Interest expense	154	284
Changes in the estimation of financial reporting	0	0
Pension payments	-558	-523
Actuarial gains (-) and losses (+)	376	2,120
Present value of future pensions on Dec. 31	17,335	17,223

The current service cost is essentially recognized in the cost of sales and in administrative costs.

At the reporting date of December 31, 2020, it can be assumed that EUR 604 thousand (previous year: EUR 580 thousand) will be fulfilled within the next twelve months and EUR 16,731 thousand (previous year: EUR 16,643 thousand) will be fulfilled at a later date (over a very long term for some portions). On December 31, 2020, the weighted average term of defined pension plans was 14.6 years (previous year: 16.1 years).

Sensitivity Analyses

While keeping to the other assumptions, the changes reasonably assumed possible on the balance sheet date December 31, 2020 would have influenced the defined pension plans as follows, based on actuarial gains and losses:

[EUR'000]	Increase	Reduction
Discount rate (0.25% change)	+17	-18
Future pension increases (0.25% change)	+18	-17

Defined Contribution Plans

Defined contribution plans of relevance to PVA TePla AG take the form of the employer's statutory pension insurance contributions, pension fund contributions and direct insurance contributions. In fiscal year 2020, the corresponding expenditure amounted to EUR 2,655 thousand (previous year: EUR 2,810 thousand).

Presentation of Significant Accounting Policies

Pension provisions relate exclusively to defined benefit plans. The costs for providing these is calculated using the projected unit credit method, under which an actuarial valuation is carried out at each reporting date. Recognized provisions for defined benefit plans are determined using actuarial models based primarily on key assumptions including discount rates, mortality rates, salary and pension trends. Remeasurements, comprising actuarial gains and losses (excluding interest expense), are recognized directly in other comprehensive income. The remeasurements recognized in other comprehensive income are part of other reserves and are no longer reclassified in profit or loss to the Group income statement in subsequent periods. Past service cost is recognized as a personnel expense when the plan amendment occurs.

Interest expense is calculated by multiplying the discount rate by the pension obligation. The defined benefit costs include the service cost (including current service cost, past service cost and any gains or losses from the plan being amended, curtailed or settled) and the interest expense.

The PVA TePla Group reports the service cost in the Group income statement under operating expenses and the interest expense under finance costs. Gains or losses from curtailments or settlements are recognized directly in profit or loss.

Payments for defined contribution plans are recognized in profit or loss as personnel expenses in the functional area when the eligible employee has performed the work.

16. OTHER PROVISIONS

[EUR'000]	Jan. 1, 2020	Changes to the companies included in consolidation	Utilization	Release	Addition	Dec. 31, 2020
Warranty	1,925	8	-1,834	-	2,722	2,821
Subsequent costs	201	-	-201	-	-	0
Archiving	54	-	-5	-	5	54
Penalties	48	-	-44	-4	133	133
Other	1,387	209	-1,362	-24	739	948
Total	3,615	217	-3,447	-28	3,599	3,956

In general, contracts with customers include warranty periods and periods for reporting defects following the completion of the specific projects. These obligations are not considered as separate performance obligations and are therefore included in the total contract costs as estimated. If required, amounts are recognized under other provisions in accordance with IAS 37.

Other provisions contain non-current components in the amount of EUR 327 thousand (previous year: EUR 62 thousand). These relate primarily to provisions for variable remuneration components and archiving. All remaining other provisions are current in nature.

Presentation of Significant Accounting Policies

In accordance with IAS 37, a provision is recognized if a PVA TePla Group company has a current (legal or constructive) obligation as a result of past events, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and it is possible to reliably estimate the amount of the obligation. The amount to be carried as a provision is the best estimate of the expenditure required to settle the present obligations at the balance sheet date.

Provisions that will not result in an outflow of resources in the following year are recognized at the discounted settlement amount as of the balance sheet date, taking into account expected cost increases. The present value of a provision is calculated using pre-tax interest rates that take into consideration current market expectations regarding the interest effect and the risks specific to the obligation. In the event of discounting, the increase in provisions over time is recognized as a finance cost. The estimates are examined at each reporting date.

Claims for reimbursement (e.g. due to insurance contracts) are capitalized as a separate asset only when the receipt of the reimbursement is virtually certain. In the consolidated income statement, the expense from establishing a provision less the reimbursement is recognized.

17. CONTRACT LIABILITIES

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Contract liabilities (POC method)	3,259	4,296
Advance payments received concerning product sales and services	59,600	74,309
Contract liabilities	62,859	78,605

Of the EUR 78,605 thousand advance customer payments recognized under "contract liabilities" as of December 31, 2019 (December 31, 2018: EUR 72,493 thousand), EUR 52,727 thousand were recognized as sales revenues (EUR 36,152 thousand) in the fiscal year 2020.

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Advance payments received	9,799	9,647
less contract costs incurred incl. share of profit (POC method)	-6,540	-5,351
Contract liabilities (POC method)	3,259	4,296

As of the reporting date of December 31, 2020, contract liabilities (POC method) include outstanding advance payment from customers with legally enforceable payment claims amounting to EUR 751 thousand (previous year: EUR 4,195 thousand).

Presentation of Significant Accounting Policies

Systems produced for specific customers to be recognized over a period of time using the POC method and for which the advance payments received exceed the contract costs incurred, including the share of profits, are recognized under contract liabilities. Advance payments received from customers relating to product sales and services that are not accounted for using the POC method are also recognized under contract liabilities.

G. NOTES ON THE CONSOLIDATED CASH FLOW STATEMENT

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Cash in bank	27,717	23,558
Cash in hand	9	9
Cash investment	2,004	2,003
Cash and cash equivalents (balance sheet)	29,730	25,570
Bank overdrafts	0	0
Cash funds (cash flow statement)	29,730	25,570

Payments for investments in intangible assets and property, plant and equipment include only cash effective acquisitions. In fiscal year 2020, EUR 0.5 million (previous year: EUR 0.7 million) was reclassified from inventories to property, plant and equipment. This was not cash effective.

The following table shows the changes in financial liabilities whose cash flows have been or will be shown in the consolidated cash flow statement as cash flows from financing activities:

[EUR'000]	Dec. 31, 2019	Cash effective changes	Non-cash effective changes			Dec. 31, 2020
			Acquisitions	Foreign exchange differences	Other changes	
Non-current financial liabilities	3,231	-1,667	+361	-	-225	1,700
Current financial liabilities	1,308	-2,302	+904	-	+1,342	1,252
Total	4,539	-3,969	+1,265	-	+1,117	2,952

[EUR'000]	Dec. 31, 2018	Cash effective changes	Non-cash effective changes			Dec. 31, 2019
			Acquisitions	Foreign exchange differences	Other changes	
Non-current financial liabilities	2,333	-	-	-	+898	3,231
Current financial liabilities	670	-667	-	-	+1,305	1,308
Total	3,003	-667	-	-	+2,203	4,539

Presentation of Significant Accounting Policies

Cash and cash equivalents comprise cash in hand and immediately available bank balances as well as immediately available financial investments that are subject to only insignificant fluctuations in value and, measured from the time of acquisition, have a remaining term not exceeding three months. Cash and cash equivalents are measured at amortized cost. For more information, refer to the explanations under Note 10.

Cash flows for the fiscal year are recognized in the statement of Group cash flows in order to present information on the changes in the PVA TePla Group's cash and cash equivalents during the fiscal year. A distinction is drawn between three areas: Operating, investing and financing activities.

Cash flows from operating activities are calculated in accordance with the indirect method by adjusting profit or loss before income taxes to account for transactions of a non-cash nature and transactions associated with investment or financing. As with cash flows from financing activities, cash flows from investing activities are also calculated using the indirect method, i.e. by comparing gross cash payments and gross cash receipts.

H. NOTES ON THE CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Share Capital

As of December 31, 2020, the issued share capital of PVA TePla AG consisted of 21,749,988 no-par value shares (previous year: 21,749,988 no-par value shares) each with a nominal value of EUR 1.00.

Contingent and Authorized Capital

As of December 31, 2020, there is no contingent capital.

At the Annual General Meeting on June 21, 2017, the old authorization of the Management Board to increase the share capital valid until June 30, 2017 was canceled. At the same time, the Annual General Meeting of PVA TePla AG authorized the Management Board to increase the Company's share capital with approval of the Supervisory Board on one or more occasions during the period until June 20, 2022 by a total of up to EUR 10,874,994 by issuing 10,874,994 new no-par value bearer shares against cash and/or non-cash contributions with shareholders' subscription rights excluded to the extent permitted by law. No capital increases from this authorized capital were resolved either fiscal year 2020 or 2019.

Profit Appropriation

The Management Board and Supervisory Board propose that the retained earnings reported in PVA TePla AG's annual financial statements for fiscal year 2020 (according to commercial law regulations) amounting to EUR 37,209 thousand be carried forward to a new account at the same amount. There were no with-drawals from the share premium or retained earnings.

I. OTHER DISCLOSURES

18. SEGMENT REPORTING

The PVA TePla Group is divided into the divisions Industrial Systems and Semiconductor Systems. Management, planning and controlling of PVA TePla Group are based on these two divisions. Segment reporting therefore follows the organizational structures of PVA TePla Group's internal management system.

Revenues by division				
[EUR'000]	2020		2019	
Segment revenues	External revenues	Internal revenues	External revenues	Internal revenues
Industrial Systems	45,599	3,561	45,170	3,795
Semiconductor Systems	91,437	849	85,798	714
Total PVA TePla Group	137,036	4,410	130,968	4,509

As a matter of principle, transactions involving intersegment sales and revenues are conducted at arm's length conditions.



EBIT by Division

[EUR'000]	2020	2019
Segment Result		
Industrial Systems	6,740	3,485
Semiconductor Systems	16,280	12,741
Holding costs	-4,502	-3,922
Consolidation	-	1
Total PVA TePla Group	18,518	12,305

Reconciliation of Segment Results to Consolidated Net Result

[EUR'000]	2020	2019
Operating result (EBIT)	18,518	12,305
Financial result	-673	-486
Net result before tax	17,846	11,820
Income taxes	-5,117	-4,107
Consolidated net result	12,729	7,713

Revenues by region

[EUR'000]	2020	in %	2019	in %
Asia	75,592	55	43,899	33
Germany	23,345	17	52,536	40
Europe (without Germany)	28,916	21	21,291	16
North America	8,770	6	12,510	10
Other	413	1	732	1
Total PVA TePla Group	137,036	100	130,968	100

In fiscal year 2020, sales revenues of EUR 45.7 million (previous year: EUR 33.9 million) relate to sales revenues with one customer of the Group with a sales share exceeding 10% of total sales and relate to the Semiconductor Systems segment.

19. ADDITIONAL DISCLOSURES ON FINANCIAL INSTRUMENTS**Finance Risks**

In addition to derivative finance instruments, financial liabilities of the PVA TePla Group comprise primarily loans from credit institutes, lease liabilities and trade payables. The main purpose of these financial liabilities is to finance operating activities of the PVA TePla Group. In addition to derivative financial instruments, financial assets of the PVA TePla Group comprise primarily cash and cash equivalents as well as current and non-current trade receivables which result directly from its operating activities.

When engaging in its operating activities, the PVA TePla Group is exposed to various finance risks. These include default, liquidity and market risks (currency and interest risks). The risk report as part of the Group management report contains a presentation of the risk management system in respect to the targets, methods and processes. Financial risk management is implemented in line with principles specified by the company. These regulate hedging currency, interest and credit risks, cash management as well as short and long-term financing. The objective is to reduce finance risks, taking into account hedging costs and the resulting risks taken. If appropriate, derivative finance instruments are concluded to hedge underlying transactions. Derivative financial instruments are used solely as hedging instruments, meaning that they are not employed for trading or other speculative purposes. To minimize counterparty risk, the transactions are concluded only with counterparties which have a first-class credit rating. The basic details of the financial policy are established annually by the Management Board and monitored by the Supervisory Board. The Management Board is directly responsible for the implementation of the financial policy and ongoing risk management.

Default Risks

The credit risk is the risk that a business partner might fail to meet his obligations within the framework of a financial instrument or a general customer agreement and that this might lead to a financial loss. In the course of its operating activities, the PVA TePla Group is exposed to default risks (especially arising from trade receivables) as well as risks in connection with financing activities, including deposits with banks and financial institutions, currency transactions and other financial instruments.

When engaging in its operating activities, the PVA TePla Group grants supplier credits to a broad range of customers. Theoretically, the maximum default risk is shown by the carrying amounts of the financial assets recognized in the consolidated balance sheet. The PVA TePla Group recognized impairment of EUR 114 thousand (previous year: EUR 820 thousand) in the income statement on current and non-current trade receivables to cover known risks in fiscal year 2020. Risks from advance payments are avoided with advance payment bonds. There are no discernible risks from other receivables. As of the December 31, 2019 and December 31, 2020 reporting dates, the PVA TePla Group had no other significant agreements that reduce the maximum exposure to credit risk.

The creditworthiness of customers is regularly reviewed. The risk of default is mitigated by credit checks and dunning. In its operating business, outstanding accounts receivables and contract assets are monitored locally (decentralized) and on an ongoing basis. The PVA TePla Group has control procedures in place to ensure that services are provided only to customers who have proven to be creditworthy in the past and to ensure that the default risk for these transactions remains within acceptable limits. Default risks are taken into account through appropriate impairment losses. Impairment losses are analyzed to each reporting date using an impairment matrix to determine the expected credit losses. Risk-clustered default rates were determined on the basis of historical default data and taking account of future-oriented macroeconomic indicators (anticipated insolvency ratios), as well as integrating the economic impact of the corona pandemic. This calculation resulted in a default rate which was not significantly higher than that of the previous year.



[EUR'000]	Dec. 31. 2020	With specific valuation allowance	Impairment Matrix			
			Not past due	< 30 days past due	30 – 90 days past due	> 90 days past due
Trade receivables (gross carrying amount)	14,080	189	11,652	1,080	641	518
Contract assets (gross value)	7,674	-	7,674	-	-	-
Weighted aver-age default rate (%) FY 2020	-	-	0.4%	0.4%	0.6%	0.9%
Weighted aver-age default rate (%) FY 2019	-	-	0.2%	0.3%	0.4%	0.5%
Impairment	-208	-118	-77	-4	-4	-5

[EUR'000]	Dec. 31, 2019	With specific valuation allowance	Impairment Matrix			
			Not past due	< 30 days past due	30 – 90 days past due	> 90 days past due
Trade receivables (gross carrying amount)	14,645	1,138	4,006	4,368	2,104	3,029
Contract assets (gross value)	10,458	-	10,458	-	-	-
Weighted aver-age default rate (%) FY 2019	-	-	0.2%	0.3%	0.4%	0.5%
Weighted aver-age default rate (%) FY 2018	-	-	0.4%	0.5%	0.7%	0.9%
Impairment	-776	-711	-29	-13	-8	-15

Liquidity Risks

The PVA TePla Group attaches extreme importance to maintaining solvency at all times. To ensure solvency at all times and to achieve the highest level of financial flexibility, revolving liquidity planning has been prepared for the PVA TePla Group. A liquidity reserve is held in the form of credit facilities and cash on hand.

For more information on the maturities of financial liabilities, see the disclosures on the relevant balance sheet items in Note 14. The maturity analysis of the derivative financial liabilities can be found in the following section.

Market Risks

Market risk is the risk that the fair value or future cash flows of a financial instrument might fluctuate as a result of changes in market prices. Market risk includes currency and interest risks.

Currency risk is defined as the risk that the fair value or future cash flows of a financial instrument are subject to fluctuations as a result of changes in currency prices. Fluctuating exchange rates impact the presentation of PVA TePla AG assets and liabilities in the consolidated financial statements, to the extent that assets and liabilities are denominated in currencies other than the euro. Foreign currency risks with a significant impact on the Group's cash flows are hedged.

Foreign currency risks in the context of operating activities primarily arise when planned transactions are settled in a currency other than the functional currency (EUR). These planned transactions relate in particular to expected future sales revenues invoiced in US dollars. To manage the currency risk, as far as possible the PVA TePla Group attempts to achieve cash inflows and outflows with matching time and currency.

PVA TePla AG, PVA Metrology & Plasma Solutions GmbH as well as PVA TePla Analytical Systems GmbH enter into foreign exchange forward contracts to hedge payment obligations. These derivative financial instruments have a term to maturity of up to one year and hedge payment obligations of EUR 2,985 thousand (previous year: EUR 979 thousand) as of December 31, 2020. In what follows, the expected net payment from currency hedging instruments is shown.

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Expected net payments		
Up to 1 month	-32	-3
Between 1 and 3 months	-53	-3
Between 3 months and 1 year	-10	-1
Between 1 and 5 years	0	0

Interest income and expenses from financial instruments at the German companies are recognized in the functional currency (EUR). This means that foreign currency risks can arise only from the financial instruments and assets held by the individual companies outside Germany that would be taken directly to currency reserves in equity. For this reason, only an equity-based sensitivity analysis is performed.

If the value of the Euro had been 10% higher (lower) compared to the US dollar on December 31, 2020, the other reserves in equity would have been EUR 382 thousand lower (EUR 467 thousand higher) (December 31, 2019: EUR 345 thousand lower (EUR 422 thousand higher)).

If the value of the Euro had been 10% higher (lower) compared to the other currencies relevant to the Group on December 31, 2020, the other reserves in equity would have been EUR 144 thousand lower (EUR 180 thousand higher) (December 31, 2019: EUR 120 thousand lower (EUR 149 thousand higher)).

Interest risks result from non-current variable-interest liabilities. Such risks are minimized by the PVA TePla Group on the basis of ongoing observation of global interest policy, and if necessary, interest hedging measures.

The Company is mainly subject to interest rate risk in the Eurozone. Taking the existing and planned debt structure into account, the Company uses interest rate derivatives (interest rate swaps) in order to counteract interest rate risks.

A sensitivity analysis of the interest risks is shown below. These represent the effects of changes in market interest rates on interest payments, interest income and expenses, other earnings components and, where applicable, shareholders' equity.

In the previous year, sensitivity analyses were performed for financial derivatives (swaps) not forming part of an effective hedge. As of December 31, 2020, these financial derivatives were no longer in place. If the market interest rate as of December 31, 2020 had been 100 basis points higher, earnings would have increased by EUR 0 thousand (previous year: EUR 27 thousand). If the market interest rate as of December 31, 2020 had been 100 basis points lower, earnings would have decreased by EUR 0 thousand (previous year: EUR 28 thousand).

Interest rate hedges with a total original volume of EUR 11,600 thousand were entered into in order to hedge the interest rate risk for financing investments in new buildings at the Wettenberg site. The outstanding balance of these hedging transactions on the reporting date of December 31, 2020 is EUR 0 thousand (previous year: EUR 2,333 thousand). Thus, the following net payments from interest hedging instruments no longer apply.

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Expected net payments		
Up to 1 month	0	-54
Between 1 and 3 months	0	0
Between 3 months and 1 year	0	-45
Between 1 and 5 years	0	-114
Over five years	0	0

The underlying loans were concluded in 2007 on the basis of the corresponding interest rates. They hedge long-term, flexible financing for new construction at the Wettenberg location.

Effective on March 3, 2014, PVA TePla AG canceled two fixed-interest real estate loans secured by land charges for new construction in Wettenberg totaling EUR 5,684 thousand and combined them into a new loan for EUR 6,000 thousand with a term until December 2023. The new loan was synchronized with existing interest hedging transactions for a total of EUR 6,000 thousand. Effectiveness according to IFRS could not be achieved in the past. Both, the real estate loan and the associated hedging transaction, which had a negative market value of EUR -212 thousand in the previous year (change in market value in previous year: EUR +127 thousand), were fully redeemed in the 2020 financial year.

The corresponding counter-entry of the fair values of the interest derivatives as well as the applicable deferred taxes is made in other current and non-current financial liabilities as well as deferred tax assets or liabilities depending on changes in fair value.

Categories of Financial Instruments

Dec. 31, 2020	Carrying amount for each valuation category				not allocated to any valuation category (excluded from the scope of IFRS 7)	Total carrying amounts
	Non-current investments		Financial liabilities			
	at fair value through profit or loss	at amortized cost	at fair value through profit or loss	at amortized cost		
[EUR'000]						
Non-current assets						
Non-current investments	-	393	-	-	-	393
Current assets						
Trade and other receivables	-	18,148	-	-	6,654	24,802
Cash and cash equivalents	-	29,730	-	-	-	29,730
Non-current liabilities						
Financial liabilities	-	-	-	1,700	-	1,700
Other non-current financial liabilities	-	-	-	-	-	-
Current liabilities						
Financial liabilities	-	-	-	1,252	-	1,252
Trade payables	-	-	-	7,991	-	7,991
Other short-time liabilities	-	-	-	-	2,426	2,426
Total	-	48,271	-	10,943	9,080	68,294

Dec. 31, 2019	Carrying amount for each valuation category				not allocated to any valuation category (excluded from the scope of IFRS 7)	Total carrying amounts
	Non-current investments		Financial liabilities			
	at fair value through profit or loss	at amortized cost	at fair value through profit or loss	at amortized cost		
[EUR'000]						
Non-current assets						
Non-current investments	-	3,014	-	-	-	3,014
Current assets						
Trade and other receivables	8	19,870	-	-	7,500	27,378
Cash and cash equivalents	-	25,570	-	-	-	25,570
Non-current liabilities						
Financial liabilities	-	-	-	3,231	-	3,231
Other non-current financial liabilities	-	-	114	-	-	114
Current liabilities						
Financial liabilities	-	-	-	1,308	-	1,308
Trade payables	-	-	-	10,792	-	10,792
Other short-time liabilities	-	-	99	-	1,200	1,299
Total	8	48,454	213	15,331	8,700	72,706

In all measurement categories the carrying amount is a reasonable approximation for the fair value. For this reason there is no separate presentation of carrying amounts and market values. PVA TePla AG's financial instruments measured at fair value are allocated to "level 2" at which measurement is based on stock exchange or market prices of similar instruments or on measurement models based on input parameters observable in the market. The fair values of both forward exchange contracts and interest hedges were determined on the basis of discounted expected future cash flows. For the remaining durations of the finance instruments the relevant market interest rates are used.

**Net gains and losses on financial instruments
by measurement category**

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Financial assets and liabilities at fair value through profit or loss	+107	-192
Financial assets measured at amortized cost	+776	-722
Financial liabilities measured at amortized cost	-95	-134
Total	+788	-1,048

The net result from the financial assets and liabilities measured at fair value through profit or loss results from changes in the market value of derivative hedging instruments. The change in derivative hedging instruments resulted in measurement changes of EUR -25 thousand (EUR 127 thousand) not impacting cash. All other changes were cash effective.

Capital Management

At the PVA TePla Group the primary objective of capital management is to ensure the financial flexibility required to achieve the growth and return targets. The focus of capital management is on the company's equity and on the borrowing required to finance operating activities. The PVA TePla Group manages the capital structure and makes adjustments taking account of the changes in the general economic situation. The key indicator for capital management is the equity ratio. Actual management is performed by optimizing yields and setting limits on the commitment of funds. Further objectives of capital management include ensuring the Group's liquidity by agreeing appropriate and sufficient credit lines and maintaining the current ratio of advance payments, as well as optimizing the financial result in order to improve returns.

[EUR'000]	Dec. 31, 2020	Dec. 31, 2019
Shareholders' equity	69,314	57,315
Total assets	177,245	180,933
Equity ratio	39.1%	31.7%

Within the fiscal year 2020, equity increased to EUR 69,314 thousand (previous year: EUR 57,315 thousand).

20. DISCLOSURES ON LEASES

Leases as Lessee

The capitalized rights of use relate to buildings and individual objects of operating and office equipment leased by the PVA TePla Group in the context of leases as lessee. The PVA TePla Group has rented premises for production and administration at normal market conditions from third parties at its sites in Munich, Jena, Westhausen, Coburg, Manassas/Virginia (USA), Corona/California (USA), Beijing (China) and well as in Singapore. In addition, the PVA TePla Group is leasing a limited number of company vehicles, including pool vehicles as well as company cars for Management Board members, Managing Directors and in individual cases for employees with a high share of external activities.

[EUR'000]	Land	Equipment, fixtures and fittings	Total
Acquisition and manufacturing costs			
Jan. 1, 2019	1,334	536	1,870
Exchange differences	8	-	8
Changes to the companies included in consolidation	-	-	-
Additions	544	453	997
Disposals	-	-	-
Transfers	-	-	-
Dec. 31, 2019	1,886	989	2,875
Jan. 1, 2020	1,886	989	2,875
Exchange differences	-27	-	-27
Changes to the companies included in consolidation	461	-	461
Additions	452	603	1,055
Disposals	-	-120	-120
Transfers	-	-	-
Dec. 31, 2020	2,772	1,472	4,244
kumulierte Abschreibungen und Wertminderungen			
Jan. 1, 2019	-	-	-
Exchange differences	-	-	-
Additions	368	332	700
Disposals	-	-	-
Transfers	-	-	-
Dec. 31, 2019	368	332	700
Jan. 1, 2020	368	332	700
Exchange differences	0	0	0
Additions	440	409	849
Disposals	0	0	0
Transfers	0	0	0
Dec. 31, 2020	808	741	1,549
Net carrying amounts			
Dec. 31, 2019	1,518	657	2,175
Dec. 31, 2020	1,964	731	2,695

In fiscal year 2020, expenses for leases which were not recognized amounted to EUR 277 thousand (previous year: EUR 220 thousand), EUR 141 thousand (previous year: EUR 71 thousand) of which related to short-term leases and EUR 136 thousand (previous year: EUR 149 thousand) to leases for low-value assets.

In fiscal year 2020, total cash outflow for leases amounted to EUR 1,168 thousand (previous year: EUR 3,087 thousand), EUR 891 thousand (previous year: EUR 2,867 thousand) of which related to payments of principal and interest for leases.

Individual property leases include extension options after the end of the basic term (including the subsequent automatically renewing lease terms) which are included in each measurement of the lease liabilities.

Leases as Lessor

Only to a very minor extent does the PVA TePla Group lease its own equipment and systems to customers or parts of its own or leased office buildings.

Presentation of Significant Accounting Policies

Pursuant to IFRS 16, a lease is an agreement, where the lessor against a payment or a series of payments transfers to the lessee the right to use an asset for a stipulated period of time. This also applies to agreements where the transfer of such a right is not expressly stated. As part of its business transactions, the PVA TePla Group is the lessee of property, plant and equipment. Only to a limited extent does the PVA TePla Group operate as lessor in connection with leasing its own systems and buildings.

With a view to the leases concluded as lessee, the PVA TePla Group recognizes a right of use with a corresponding lease liability for all lease payments to be made over the term of the contract. For leased assets of lower value and for short-term leases (less than twelve months) the practical expedients are utilized and the payments recognized as expenses on a straight-line basis in the consolidated income statement.

The cost of a right of use is determined from the present value of all future lease payments plus any lease payment at or before inception of the lease as well as the costs for the contract performance and the estimated costs for the dismantling or the restoration of the leased asset. Subsequent measurement takes place at cost less any accumulated (scheduled) amortization and accumulated impairment losses. The leasing rights of use are reported separately in the consolidated balance sheet under the "capitalized rights of use" item. Depreciation, amortization and impairments of capitalized rights of use are recognized in function costs. The rights of use are amortized over the underlying asset's economic life, where the relevant leasing payments and also the transfer of title to the underlying asset at the end of the lease term or the exercise of a purchase option is highly probable. In all other cases the rights of use are amortized over the term of the lease.

Lease liabilities recognized in financial liabilities are initially recognized at the present value of the outstanding lease payments. In the context of subsequent measurement, the carrying amount of the lease liability is increased by the annual lease expense and reduced by the lease payments made. The resulting interest expenses are recognized within "finance costs".

For more information on the amortization of leasing rights of use, see the explanations on significant accounting policies in Note 8.

Leases concluded as lessor are classified as operating or finance leases. Lease agreements are classified as finance leases if all risks and rewards incidental to ownership are transferred to the lessee. In fiscal year 2020 as in the previous year, all leases concluded by the PVA TePla Group as lessor were to be classified as operating leases. As a result, lease assets were to be recognized in the PVA TePla Group consolidated balance sheet under property, plant and equipment and the lease installments in other operating income pro rata when incurred.

21. CONTINGENT LIABILITIES AND OTHER FINANCIAL OBLIGATIONS

When engaging in its business activities, the PVA TePla Group is occasionally involved in legal disputes. The management is not aware of any events which would considerably impair the earnings, liquidity or financial position and earnings situation. Account is taken of the risks from legal disputes by establishing suitable provisions.

As of December 31, 2020, as in the previous year there were no material other financial obligations, both in relation to purchasing equipment for property, plant and equipment or for leases concluded but not yet commenced.

22. RELATED PARTIES

Related parties as defined by IAS 24 are legal or natural persons which can exercise at least a significant influence over PVA TePla AG or are subject to control, joint control or a significant influence by PVA TePla AG. Related parties are also key management personnel, their close relatives and companies which are controlled, jointly controlled or significantly influenced by this group of persons.

In fiscal year 2020 and in the previous fiscal year, in connection with an existing consulting contract business relationship existed between PVA TePla AG and the main shareholder Peter Abel, who can exercise a significant influence on PVA TePla AG in connection with an existing consulting agreement with PA Beteiligungsgesellschaft mbH, Wettenberg, attributable to Peter Abel. The volume of the business transactions amounted to EUR 320 thousand (previous year: EUR 448 thousand). Furthermore, there were liabilities of EUR 212 thousand as of December 31, 2020 (previous year: EUR 312 thousand).

Additional transactions with related parties with reference to the PVA TePla Group relate to business transactions with companies included in the consolidated financial statements. For information on the volume of these transactions, please see the presentation of sales revenues in the segment reporting under Note 18. This also shows intra-Group sales. All intra-Group transactions are handled at arm's length conditions and are eliminated in full when preparing the consolidated financial statements. They therefore have no impact on the net assets, financial position and results of operations of the PVA TePla Group.

Members of the Management Board

Alfred Schopf (Chief Executive Officer)
Jalin Ketter (Chief Financial Officer); from June 26, 2020
Oliver Höfer (Chief Operating Officer)
Dr. Andreas Mühe (Chief Technology Officer), from June 26, 2020

Manfred Bender appointed Chairman of the Management Board in January 2021.

Total Remuneration of the Executive Board

[EUR'000]	2020	2019
Current benefits	1,629	1,323
Share-based payments	0	0
Post-employment benefits	0	0
Termination benefits	0	0
Other non-current benefits	264	0
Total	1,893	1,323

	Dec. 31, 2020	June 26, 2020
Dividend yield [%]	0,0	0,0
Expected volatility [%]	48.3	57.3
Risk-free interest rate [%]	-0.8	-0.7
Residual term at measurement date [years]	2.5	3.0
Market capitalization (6 month average) [EUR million]	275	248

At the 2020 Annual General Meeting, three Management Board members were granted a long-term incentive determined on the basis of the development of the PVA TePla AG market capitalization between the day of the 2020 Annual General Meeting (June 26, 2020) and the day of the 2023 Annual General Meeting. This is a long-term compensation component which is accounted for in the same way as „cash-settled share-based payment transactions“ as defined by IFRS 2. For each Management Board member, the long-term incentive is 0.5% of the increase in market capitalization, adjusted for any capital increases made in the intervening period. Each of the three long-term incentive components is capped at an amount of EUR 250 thousand. For each member of the Management Board, the fair value of each of these long-term incentive components calculated using the Black-Scholes option price model was EUR 69 thousand on June 26, 2020 and EUR 88 thousand as of December 31, 2020. As of December 31, 2020, a liability of EUR 264 thousand was posted under „other provisions“. Total expenses for these long-term incentive components amounted to EUR 264 thousand in fiscal year 2020. The following input factors were used in the Black-Scholes model. Anticipated volatility was derived from historical peer group volatility (median).

Non-current payments are due in connection with the long-term performance-based compensation. All other remuneration listed is payable over the short term. Employer contributions to pension insurance are not paid. There are no pension commitments for any current Management Board members. No real share options were granted to members of the Management Board in fiscal year 2020 or in fiscal year 2019. There were no unusual transactions with related parties.

Within fiscal year 2020, EUR 133 thousand was paid to former members of the Management Board as pensions (previous year: EUR 119 thousand). As of the balance sheet date of December 31, 2020, there was a provision of EUR 2,360 thousand for these pension obligations (previous year: EUR 2,403 thousand).

Detailed information on the remuneration system and the remuneration components are shown in the remuneration report of the Group management report of the PVA TePla Group.

Members of the Supervisory Board

Alexander von Witzleben, Weimar (Chairman)

- Arbonia AG, Arbon/Switzerland (President of the Board of Directors and CEO)
- Member of the following other supervisory bodies:
- VERBIO Vereinigte BioEnergie AG, Leipzig (Chairman of the Supervisory Board)
- KAEFER Isoliertechnik GmbH & Co. KG, Bremen (Member of the Advisory Board)
- Siegwerk Druckfarben AG & Co. KGaA, Siegburg (Member of the Supervisory Board)
- Feintool International Holding AG, Lyss (President of the Administration Board)
- Artemis Holding AG, Aarburg/Switzerland (Member of the Advisory Board)

Prof. Dr. Gernot Hebestreit, Leverkusen (Deputy Chairman)

- Warth & Klein Grant Thornton AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Partner, member of the Board of Directors)
- Member of the following other supervisory bodies:
- Comvis AG, Essen (Deputy Chairman of the Supervisory Board)

Prof. Dr. Markus H. Thoma, Schöffengrund

- Professor of Plasma and Astronautics at the University of Giessen
- Member of the following other supervisory bodies:
- Nationales Zentrum für Plasmamedizin e.V. (member of the Board of Trustees)

Total Remuneration of the Supervisory Board

[EUR'000]	2020	2019
Fixed compensation	100	100
Variable compensation	0	0
Total	100	100

The remuneration of the Supervisory Board does not include any performance-related components.

Detailed information on the remuneration system and the remuneration components are shown in the remuneration report of the Group management report of the PVA TePla Group.

Presentation of Significant Accounting Policies

Related parties as defined by IAS 24 are such parties which PVA TePla AG controls, exercises joint control or exercises a significant influence on PVA TePla AG. Subsidiaries, joint ventures and associates as also considered as related parties for PVA TePla AG as well as subsidiaries and joint ventures of PVA TePla in relation to each other. The same also applies to subsidiaries which are not fully consolidated. Related parties are also key management personnel, their close relatives and companies which are controlled, jointly controlled or significantly influenced by this group of persons.

Cash-settled Share-based Payment Transaction

For cash-settled share-based payment transactions, a provision is to be established initially and at each reporting date until settled, at the fair value of the share appreciation rights. This is done by mandatorily applying an option pricing model, taking into account the terms and conditions on which the share appreciation rights were granted, and the extent to which the employees have rendered service to date. The fair value of the amount to be paid to the employee in reference to the share appreciation rights, which are settled in cash, is recognized as expense with a corresponding increase in the provisions over the period in which the employees acquire an unconditional entitlement to these payments. The provision is remeasured on each reporting date as well as on the settlement date based on the fair value of the share appreciation rights. All changes in the provisions are recognized in the consolidated income statement.

23. AUDITOR FEES AND SERVICES

[EUR'000]	2020	2019
Audit of annual financial statements	285	269
Other assurance or valuation services	0	3
Tax consulting services	0	0
Other services	15	27
Total	300	297

Fees for audits of financial statements of Ebner Stolz GmbH & Co. KG Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, Frankfurt am Main, related primarily to the audit of the consolidated financial statements and the financial statements of PVA TePla AG and various audits of financial statements of its subsidiaries including audit focus points agreed with the Supervisory Board. Other services relate primarily to consultancy services in connection with company transactions.

Of the aforementioned fees incurred in the fiscal year 2020, EUR 150 thousand relate to the previous year (previous year: EUR 54 thousand).

24. DECLARATION OF COMPLIANCE IN ACCORDANCE WITH ARTICLE 161 OF THE GERMAN STOCK CORPORATION ACT

The Management Board and Supervisory Board of PVA TePla AG issued the Declaration of Compliance on the recommendations of the German Corporate Governance Codex (GCGC) in accordance with Article 161 of the German Stock Corporation Act (AktG) and made it available to shareholders.

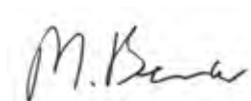
The full declaration is permanently available on the Company's website at (www.pvatepla.com/investor-relations/corporate-governance). Available on the website are also the Declarations on Corporate Governance published in previous fiscal years.

25. SIGNIFICANT EVENTS AFTER THE REPORTING DATE

With the exception of the change relating to the members of the PVA TePla AG Management Board reported in Note 22, in the period after December 31, 2020 and before the release of these consolidated financial statements there were no events of material importance for the consolidated financial statements.

Wettenberg, March 19, 2021

PVA TePla AG



Manfred Bender
CEO



Alfred Schopf
CEO



Oliver Höfer
COO



Jalin Ketter
CFO



Dr. Andreas Mühe
CTO

Responsibility statement

“To the best of our knowledge we assure that in accordance with the applicable reporting principles, the Consolidated Financial Statements and the separate financial statements give a true and fair view of the net assets, financial position and profit or loss of the Group and the AG, and the Group Management Report and the Management Report give a true and fair view of the development and performance of the business and the position of the Group and of the company, together with a description of the principle opportunities and risks associated with the expected development of the Group and the company.”

Wettenberg, 19. März 2021



Alfred Schopf
CEO



Manfred Bender
CEO



Jalin Ketter
CFO



Dr. Andreas Mühe
CTO



Oliver Höfer
COO

Independent Auditor's Report

The auditor's report reproduced below also includes a "Report on the Audit of the Electronic Reproductions of the Consolidated Financial Statements and of the Combined Management Report Created for Disclosure Purposes Pursuant to Section 317 (3b) HGB" ("ESEF report"). The subject of the ESEF report (the ESEF documents to be audited) is not attached. The audited ESEF documents can be viewed in or accessed from the Federal Gazette.

To PVA TePla AG, Wettenberg

Report on the Audit of the Consolidated Financial Statements and the Combined Management Report

Audit Opinions

We have audited the consolidated financial statements of PVA TePla AG, Wettenberg, and its subsidiaries (the Group), comprising the consolidated statement of financial position as at December 31, 2020, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal year from January 1 to December 31, 2020, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we audited the combined management report of PVA TePla AG, Wettenberg, for the fiscal year from January 1 to December 31, 2020. In compliance with German law, we did not audit the contents of the Group's company management declaration published on the company's website, to which reference is made in section 9 of the combined management report, or the non-financial Group report, to which reference is made in section 10 of the combined management report.

In our opinion, based on the findings of our audit,

- the attached consolidated financial statements comply in all material respects with IFRSs, as adopted by the EU, and the additional requirements of German law pursuant to Section 315e (1) HGB and, in accordance with these requirements, give a true and fair view of the Group's net assets and financial position as of December 31, 2020, and of its results of operations for the fiscal year from January 1 to December 31, 2020, and
- the attached combined management report as a whole presents an accurate view of the Group's situation. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and suitably presents the opportunities and risks of future development. Our audit opinion regarding the combined management report does not extend to the aforementioned components of the combined management report that were not audited for content.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and the combined management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and the Group management report in accordance with Section 317 HGB, the EU Audit Regulation (No. 537/2014; hereinafter "EU-AR"), and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). Our responsibility according to these regulations and standards is described in further detail in the "Responsibility of the Auditor for the Audit of the Consolidated Financial Statements and the Combined Management Report" section of our auditor's report. We are independent of the consolidated companies in compliance with the provisions of European law, German commercial law and professional law and have fulfilled our other German professional obligations in compliance with these requirements.

In addition, we declare pursuant to Article 10 (2) lit. f) EU-AR that we have provided no prohibited non-audit services referred to in Article 5 (1) EU-AR. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are such matters that, in our professional judgment, were the most significant in our audit of the consolidated financial statements for the fiscal year from January 1 to December 31, 2020. These matters were considered in connection with our audit of the consolidated financial statements as a whole and the formulation of our audit opinion; we do not provide a separate audit opinion on these matters.

We present the matters that we consider key audit matters below:

- 1) Revenue recognition
- 2) Measurement of work in progress

Re 1) Revenue recognition

a) Risk for the financial statements

In the consolidated financial statements of PVA TePla AG, sales revenues of EUR 137.0 million are reported in the consolidated income statement.

In accordance with IFRS 15.35 c), period-related revenue recognition of system orders may only be used if an asset is created that has no alternative possible use and, in addition, where a right to payment for the service already provided exists, including an appropriate profit mark-up, that is enforceable by law. If these conditions are met, sales are recognized over a period of time according to the progress of the service. The service rendered, including the prorated result, is recognized as revenues over the period of production in the sales revenues and the production progress is calculated on the basis of the previously recorded order costs in relation to the expected total contract costs (cost-to-cost method).

Furthermore, the contracts with customers regularly contain various performance promises, which may be classified as separate performance obligations and to which a part of the contract price is to be assigned.

The information provided by the company for revenue recognition in accordance with IFRS 15 is contained in sections D., E. 1) and F. 12) of the notes to the consolidated financial statements.

Determining whether a product or service is regarded as a separate performance obligation and determining the expected cost of the contract as part of the cost-to-cost method is subject to the Management Board's discretion. Furthermore, the individual contractual assessment whether the requirements of IFRS 15.35 c) for the period-related realization of revenue are met, as well as the split of the purchase price to the performance obligations, can necessitate complex assessments by the accounting entity. Against this backdrop, we considered these issues as particularly significant for our audit.

b) Audit approach and conclusions

We have performed an assessment of the basic accounting methods for plant types as well as the calculation models used in the context of the period-related revenue recognition using the cost-to-cost method. Furthermore, we paid tribute to the legal situation in individual countries or examined in random samples on a contractual basis whether there is a legal claim to payment of the services already provided in accordance with IFRS 15.37.

Based on risk-oriented selected samples of multiple-component contracts and the allocations of the proceeds to the individual performance obligations, we have assessed the estimates and assumptions made by the legal representatives in the context of substantive audit procedures.

With regard to the examination of estimates of the expected production costs as part of the cost-to-cost method, we refer to the particularly important audit case 2) Measurement of work in progress.

The performed audit procedures did not lead to any objections with regard to the revenue recognition.

Re 2) Measurement of work in progress

a) Risk for the financial statements

In the consolidated financial statements of PVA TePla AG, Wettenberg, assets of EUR 51.9 million are shown under "Work in progress" in the statement of financial position. They are measured at cost, including production and material overheads. With regard to the calculation of overheads and the expected contract costs and revenue, the measurement of inventories is subject to the management's discretion. Against this backdrop, in light of the significance for the determination of the percentage of completion in connection with period-related revenue recognition according to IFRS 15 on the basis of the cost-to-cost method, and due to the amount concerned, the measurement of "work in progress" was particularly significant for our audit.

The company's disclosures on inventory measurement are included in section F. 11 of the notes to the consolidated financial statements.

b) Audit approach and conclusions

We began by assessing the correct adoption of costs from the upstream systems. We then reviewed the hourly production cost rates and material overhead rates used in the measurement with regard to the costs included in their calculation and any idle capacity costs to be eliminated. In particular, we critically scrutinized and checked the plausibility of the management's assumptions. We examined the parameters including the calculation of hourly rates and overheads to check correct derivation from accounting.

In addition, our audit procedures concentrated on correct measurement of work in progress at the lower of cost or net realizable value. To this end, we audited the sale proceeds with any charges already contractually agreed or with charges for similar assets on a test basis. With regard to the expected contract costs, we evaluated the risk reports, minutes of Management Board and Supervisory Board meetings and contract controlling reports and discussed these matters and estimates with the management and other appointed employees. The forecast quality of the expected costs was additionally assessed on the basis of terminated contracts by comparing expected costs with costs actually incurred on a test basis.

To identify contracts with potential cost increases, mass data analyses of costs were also carried out, taking account of the respective cost types and their expected accumulation over the course of production. Abnormalities were then scrutinized critically and discussed with the employees responsible for the contract.

We found no material errors in the measurement methods or in the calculations and consider the assumptions made to be balanced and appropriate.

Other Information

The legal representatives and the Supervisory Board are responsible for the other information. The other information includes:

- the separate non-financial Group report within the meaning of Section 315b (3) HGB, to which reference is made in section 10 of the combined management report,
- the Group's company management declaration published on the company's website, to which reference is made in section 9 of the combined management report,
- the report by the Supervisory Board,
- the other parts of the annual report, with the exception of the consolidated financial statements, the disclosures in the combined management report audited for content and our auditor's report thereon, and
- the responsibility statement pursuant to Section 297 (2) Sentence 4 HGB on the consolidated financial statements and the responsibility statement pursuant to Section 315 (1) Sentence 5 HGB on the Group management report.

The Supervisory Board is responsible for the report of the Supervisory Board. The legal representatives and the Supervisory Board are responsible for the declaration of compliance with the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG), which forms part of the Group's company management declaration published in section 9 of the combined management report. Above and beyond this, the legal representatives are responsible for the other information.

Our audit opinions regarding the consolidated financial statements and the combined management report do not extend to the other information, and accordingly we provide neither an audit opinion nor any other form of audit conclusion in this regard.

As part of our audit of the consolidated financial statements, we have a responsibility to read the aforementioned other information and to evaluate whether it

- is materially inconsistent with the consolidated financial statements, with the disclosures in the combined management report audited for content or the knowledge we have obtained during our audit, or
- otherwise seems significantly incorrect.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibility of the Legal Representatives and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

The legal representatives are responsible for preparing the consolidated financial statements, which in all material respects comply with IFRSs, as adopted by the EU, and the additional requirements of German law pursuant to Section 315e (1) HGB, and for the consolidated financial statements giving a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. Furthermore, the legal representatives are responsible for the internal controls that they deemed necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

When preparing the consolidated financial statements, the legal representatives are responsible for assessing the Group's status as a going concern. In addition, they have a responsibility to disclose matters related to the status as a going concern, if relevant. They are also responsible for accounting on the basis of the going concern principle, unless they intend to liquidate the Group or discontinue its business operations, or there is no realistic alternative.

Moreover, the legal representatives are responsible for preparing the combined management report, which as a whole provides an accurate view of the Group's position and is consistent with the consolidated financial statements in all material respects, complies with German legal regulations and suitably presents the opportunities and risks of future development. The legal representatives are also responsible for the arrangements and measures (systems) that they considered necessary to enable the preparation of a Group management report in compliance with applicable German legal regulations and to allow sufficient, suitable evidence to be provided for the statements in the combined management report.

The Supervisory Board is responsible for monitoring the Group's accounting process for the preparation of the consolidated financial statements and the combined management report.

Responsibility of the Auditor for the Audit of the Consolidated Financial Statements and the Combined Management Report

Our objective is to obtain reasonable assurance as to whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an accurate view of the Group's position and is in all material respects consistent with the consolidated financial statements and with the findings of the audit, complies with German legal regulations and suitably presents the opportunities and risks of future development, and to issue an auditor's report containing our audit opinions regarding the consolidated financial statements and the Group management report.

Reasonable assurance is a high level of assurance but not a guarantee that an audit carried out in compliance with Section 317 HGB, the EU-AR and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW) will always uncover a material misstatement. Misstatements can result from transgressions or inaccuracies and are deemed material if it could be reasonably expected that they would individually or together influence the financial decisions made by users on the basis of the consolidated financial statements and the combined management report.

We exercise due discretion during the audit and maintain a critical attitude. In addition,

- we identify and evaluate the risk of material misstatements, whether due to fraud or error, in the consolidated financial statements and the combined management report, plan and implement audit procedures in response to these risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk that material misstatements are not uncovered is higher in the case of transgressions than in the case of inaccuracies, as transgressions can entail fraudulent collaboration, falsifications, deliberate omissions, misleading depictions or the suspension of internal controls.

- we gain an understanding of the internal control system relevant for the audit of the consolidated financial statements and of the arrangements and measures relevant for the audit of the combined management report in order to plan audit procedures that are appropriate given the circumstances, but not with the aim of providing an audit opinion regarding the effectiveness of these systems.
- we evaluate the appropriateness of the accounting policies used by the legal representatives and the reasonableness of the estimated values presented by the legal representatives and the associated disclosures.
- we draw conclusions about the appropriateness of the going concern principle applied by the legal representatives and, on the basis of the audit evidence obtained, whether there is material uncertainty regarding events or circumstances that could cause significant doubt about the Group's ability to continue as a going concern. If we come to the conclusion that there is material uncertainty, we are obliged to call attention to the associated disclosures in the consolidated financial statements and in the combined management report in the auditor's report or, if these disclosures are inappropriate, to modify our respective audit opinion. We draw our conclusions on the basis of the audit evidence obtained up to the date of our auditor's report. However, future events or circumstances may mean that the Group is no longer a going concern.
- we evaluate the overall presentation, the structure and the content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events such that the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with IFRSs, as adopted by the EU, and the additional requirements of German law pursuant to Section 315a (1) HGB
- we obtain sufficient appropriate audit evidence for the company's accounting information or business activities within the Group in order to provide audit opinions regarding the consolidated financial statements and the combined management report. We are responsible for directing, monitoring and implementing the audit of the consolidated financial statements. We bear sole responsibility for our audit opinions.
- we evaluate the consistency of the combined management report with the consolidated financial statements, its legality and the view it gives of the position of the Group.
- we conduct audit procedures regarding the forward-looking disclosures made by the legal representatives in the combined management report. On the basis of sufficient appropriate audit evidence, we examine the significant assumptions underlying the legal representatives' forward-looking disclosures in particular and evaluate the appropriateness of the derivation of the forward-looking disclosures from these assumptions. We do not provide a separate audit opinion regarding the forward-looking disclosures or the underlying assumptions. There is a considerable, unavoidable risk that future events will differ significantly from the forward-looking disclosures.

Topics for discussion with those responsible for monitoring include the planned scope and scheduling of the audit as well as significant audit findings, including any deficiencies in the internal control system that we find during our audit.

We issue a statement to the monitors to the effect that we have complied with the relevant independence requirements and discuss with them all relationships and other matters that can reasonably be assumed to affect our independence and the safeguards put in place to protect against this.

From among the matters that we have discussed with the monitors, we determine which matters were most significant in the audit of the consolidated financial statements for the current reporting period and are therefore the key audit matters. We describe these matters in the auditor's report, unless laws or other legal provisions preclude their public disclosure.

Other Statutory and Legal Requirements

Report on the Audit of the Electronic Reproductions of the Consolidated Financial Statements and of the Combined Management Report Created for Disclosure Purposes Pursuant to Section 317 (3b) HGB

Audit Opinion

Pursuant to Section 317 (3b) HGB, we conducted an audit to obtain reasonable assurance on whether the electronic reproductions of the consolidated financial statements and of the combined management report contained in the attached file "PVA TePla-Gruppe ESEF Unterlagen 2020.zip"  that are created for disclosure purposes (also referred to hereinafter as the "ESEF documents") satisfy the requirements of Section 328 (1) HGB relating to the electronic reporting format ("ESEF format") in all material respects. In compliance with the German legal requirements, this audit covers only the conversion of the information in the consolidated financial statements and the combined management report into the ESEF format and therefore neither the information contained in these reproductions nor other information contained in the aforementioned file.

In our opinion, the reproductions of the consolidated financial statements and of the combined management report contained in the aforementioned file and created for disclosure purposes meet the requirements of Section 328 (1) HGB relating to the electronic reporting format in all material respects. Beyond this opinion and our opinions on the accompanying consolidated financial statements and the accompanying combined management report for the financial year from January 1 to December 31, 2020 contained in the preceding "Report on the Audit of the Consolidated Financial Statements and the Combined Management Report", we do not issue any opinion whatsoever on the information contained in these reproductions or on the other information contained in the aforementioned file.

Basis for the Audit Opinion

We conducted our audit of the reproductions of the consolidated financial statements and of the combined management report contained in the aforementioned attached file in accordance with Section 317 (3b) HGB and the draft IDW auditing standard: Audit of the electronic reproductions of financial statements and management reports created for disclosure purposes in accordance with Section 317 (3b) HGB (IDW EPS 410). Our responsibility according to these regulations and standards is described in further detail in the "Responsibility of the Auditor of the Consolidated Financial Statements for the Audit of the ESEF Documents" section. Our audit practice has applied the requirements for quality assurance systems set out in the IDW quality assurance standard: Requirements for quality assurance in auditing practice (IDW QS 1).

Responsibility of the Legal Representatives and the Supervisory Board for the ESEF Documents

The legal representatives of the company are responsible for drawing up the ESEF documents with the electronic reproductions of the consolidated financial statements and of the combined management report pursuant to Section 328 (1) sentence 4 no. 1 HGB and for marking up the consolidated financial statements pursuant to Section 328 (1) sentence 4 no. 2 HGB.

In addition, the legal representatives of the company are responsible for such internal control as they have determined necessary to enable the creation of the ESEF documents that are free from material violations, whether due to fraud or error, of the requirements of Section 328 (1) HGB relating to the electronic reporting format.

The legal representatives of the company are furthermore responsible for submitting to the operator of the German Federal Gazette the ESEF documents together with the auditor's report and the accompanying audited consolidated financial statements and the audited combined management report as well as other documents to be disclosed.

The Supervisory Board is responsible for overseeing the creation of the ESEF documents as part of the financial reporting process.

Responsibility of the Auditor of the Consolidated Financial Statements for the Audit of the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material violations, whether due to fraud or error, of the requirements of Section 328 (1) HGB. We exercise due discretion during the audit and maintain a critical attitude. In addition,

- we identify and assess the risks of material breaches of the requirements of Section 328 (1) HGB, whether due to fraud or error, design and perform audit procedures responsive to those risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- we obtain an understanding of internal control relevant to the audit of the ESEF documents in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these controls.
- we assess the technical validity of the ESEF documents, i.e. whether the file containing the ESEF documents meets the requirements of Delegated Regulation (EU) 2019/815, as amended as at the balance sheet date, relating to the technical specification for this file.
- we assess whether the ESEF documents enable the audited consolidated financial statements and the audited combined management report to be reproduced in XHTML with the same contents.
- we assess whether the mark-up of the ESEF documents with Inline XBRL technology (iXBRL) enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction to be made.

Other Disclosures Pursuant to Article 10 EU-AR

We were elected as the auditor of the consolidated financial statements by the Annual General Meeting on June 26, 2020. We were engaged by the Supervisory Board on June 26, 2019. We have been the auditor of the consolidated financial statements of PVA TePla AG, Wettenberg, without interruption since fiscal year 2007.

We declare that the audit opinions contained in this auditor's report are consistent with the additional report to the Supervisory Board according to Article 11 EU-AR (audit report).

Responsible Auditor

The auditor responsible for the audit is Mr. Carl-Markus Groß.

Frankfurt/Main, March 19, 2021

Ebner Stolz GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft

Marcus Grzanna
Auditor

Carl-Markus Groß
Auditor

FINANCIAL CALENDAR

Date	Advise	
May 5, 2021	Interim Report Q1	
June 18, 2021	Shareholders' Meeting	
August 5, 2021	Halbjahresbericht	
November 4, 2021	Half-Year-Report	
22.-24. November 2021	Equity Forum	Frankfurt

IMPRINT

PVA TePla AG
 Im Westpark 10 – 12
 35435 Wettenberg
 Germany
 Phone +49 (0) 641 / 6 86 90 - 0
 E-Mail info@pvatepla.com
 Home www.pvatepla.com

Investor Relations
 Dr. Gert Fisahn
 Telefon +49 (0) 641 / 6 86 90 - 400
 E-Mail gert.fisahn@pvatepla.com

Published by
 PVA TePla AG

This report is available for download in English and German on the Internet at www.pvatepla.com under Investor Relations / Financial Reports. In case of doubt the German version shall be authoritative.